ARTIFICIAL INTELLIGENCE AND DEMOCRATIC VALUES INDEX

APRIL, 2023

ARTIFICIAL INTELLIGENCE AND DEMOCRATIC VALUES

Center for AI and Digital Policy
CAIDP.ORG

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Preface

"At the outset, it is worth considering whether the gap between the policies to govern the deployment of these new technologies and the actual deployment is narrowing or growing wider, as this would be a critical indicator of the respect for democratic values at the heart of a human-centered polity." It is with this question that we described last year the essential contribution of the AI and Democratic Values Index to the policy world. The irruption of ChatGPT in everyone's life, with its mass proliferation of untruth, bias and disinformation, proves this question to be holding the future of our societies. Companies, civil society organizations and supervisory authorities have called for pushing the pause button on the AI race if it is not to be accompanied by the necessary guardrails.

As we undertook the third survey of national AI policies and practices, we identified both positive developments and causes for concern. We built on our earlier work, identified new trends and revisited the metrics we had established for trustworthy and human-centric AI. Here are a few key findings from the past year:

The implementation of the UNESCO Recommendation on the Ethics of AI, the first global AI policy framework, is gaining momentum. UNESCO's proposal for Ethical Impact Assessment provides a powerful new tool to assess, in advance, the consequences of the deployment of AI systems. In a field that barely existed a few years ago, the UNESCO Recommendation is a remarkably comprehensive AI policy framework, touching upon established AI concerns, such as fairness, accuracy, and transparency, and emerging AI issues, including inclusivity, gender equity and sustainable development. Recognizing the importance of the first global framework for AI ethics, we have this year added a metric to take into account the Recommendation implementation. In the context of its Presidency of the Council of the European Union, the Czech Republic organized the first Global Forum on the Ethics of AI. At the first sub-regional Forum on AI in Africa, States from Southern Africa adopted the Windhoek Statement on AI to strengthen their collaboration towards a sustainable development-oriented and ethical use of AI. UNESCO and CAF, the Development Bank of Latin America, have agreed to support together the creation of a Regional council including governments of the region to review ethical criteria for AI in Latin America and the Caribbean. The Group of Friends of the UNESCO Recommendation, chaired by Kuwait, has called on states to take concrete steps to implement the Recommendation.

The White House released a Blueprint for an AI Bill of Rights, perhaps the most significant AI policy initiative in the United States to date. The Blueprint speaks to President Biden's commitment to affirmatively advance civil rights, equal opportunity and racial justice in America. To protect personal data from misuse by artificial intelligence algorithms, the Blueprint set key principles pertaining to fairness and equity, transparency and accountability, as well as associated practices to help guide the design, use and deployment of automated systems.

The negotiations of the EU AI Act have quickly progressed with an end of year target for an agreement between the European Parliament and the Council of the EU. The Commission has set out a risk-based approach anchored to a comprehensive monitoring system with a view to extend the "Brussels Effect" to the global governance of AI. Exemptions from the Act, such as defense and security issues, and AI systems classification, such as ChatGPT-like AI generative models, have been among the key points of contention with, in the background, a battle between laissez-faire proponents and trustworthy AI champions.

Meanwhile, the Council of Europe has started its work on a Convention on AI. The Council of Europe has favored an EU-compatible risk-based approach instead of a rights-based approach in line with its mandate. The stakes could not be higher as this binding instrument, open for signature to any States in the world, might become a global benchmark in the field of AI.

2022 also marked the *endorsement of the African Union (AU) Data Policy Framework by the AU Commission.* The Framework constitutes *a milestone towards the adoption of an AU Artificial Intelligence Continental Strategy*, announced for 2024. The Framework represents a significant step towards the strengthening and harmonization of national data governance frameworks in Africa under the aegis of shared values. The Framework calls for the modernization of the AU Malabo data protection Convention and its widespread ratification by African states. It also articulates an approach to new technologies tailored to the African context and sensitive to the impact of the literacy/digital divide on human rights protection and to the necessity to expand such protection to communities and collective rights. Central to the Framework is the concept of data justice, broader than data protection, which seeks to ensure that the increasing reliance on data, especially for automated decision-making, does not perpetuate historical injustices and structural inequalities.

China has started implementing sweeping new laws for data protection, the regulation of recommendation algorithms and the regulation of deepfakes. Although the privacy rules look very similar to the GDPR and

the regulation for the governance of recommendation algorithms share similar ambitions to proposals pending in both the European Union and the US Congress, there are real concerns about AI policies that are intended to favor a government in power. The same goes to some extent for the regulation of deepfakes when it is an attempt to filter information, spread propaganda and curtail freedom of expression. Against the backdrop of democratic values, the goals of transparency and accountability are offset by the inherent bias of such a legal structure, soon to be enhanced by the creation of a National Data Bureau for Centralized Management.

We also noted this year the persisting conflict over the deployment of facial recognition for mass surveillance. While the European Data Protection Board adopted Guidelines on the use of facial recognition technology in the area of law enforcement, many governments and private companies worldwide pushed forward new systems for surveillance in residential communities, inside school classrooms, and at public parks. These are not the CCTV cameras of old, but sophisticated image processing systems, designed specifically to identify individuals in public spaces by name. In some countries, this system of unique identification is then tied to elaborate government databases for scoring people based on their allegiance to the government in power. So-called Smart Cities projects are also mushrooming, providing living laboratories to test new technological tools of social control beyond the imagination of even George Orwell.

The AI-assisted war in Ukraine has also prompted renewed calls for regulating – or better prohibiting – the use of lethal autonomous weapons. This is the case at international level of the joint statement on autonomous weapons systems signed by 70 states following the 2022 UN General Assembly meeting or of the Call to action on responsible use of AI in the military domain endorsed by more than 60 States following a Global Summit co-hosted by The Netherlands and the Republic of Korea. At regional level, in a remarkable consensus, almost all Latin American and Caribbean countries called, in the Belén Communiqué, for the urgent negotiation of a binding international treaty on lethal autonomous weapons.

As the field of AI policy rapidly matures, we observe the growing adoption of AI registries by public administrations eager to develop trustworthy digitization. In several cases, including the secretive assessment of social benefits or school orientation, opaque and biased automated decisions have had a detrimental impact on citizens' lives. To avoid repeat of the past, public administrations have developed transparent mechanisms to reflect on, and account for their use of AI systems. We report these outcomes favorably as algorithmic transparency remains one of our key metrics for the evaluation of AI policies and practices. Yet, this does not

diminish the importance of upholding the principle of human control on decisions that can significantly affect human lives. At the same time, "explainability" should not be used as a convenient bypass for regulation and accountability. There is a growing understanding that "red lines" are necessary to safeguard fundamental rights. And in that recognition may be found also the key to aligning AI policies and practices, to narrowing the gap between the world of AI as it is and the world of AI we wish to inhabit. If AI is to remain human-centric, then we must determine the appropriate applications of AI.

In addressing the need to advance democratic values in the age of AI, the ability of the European Union, the United States, and allies to work in common purpose remains central. On that front, the past year provides reason for both optimism and concern. The EU and the US have been working together in the framework of the Trade and Technology Council to set out the basis of further transatlantic cooperation and common understanding of AI policy and its challenges. The good news is that "human rights" and "democratic values" undergird many of the proposals. Top officials in the Biden Administration also expressed support for the EU AI Act, and the Council of Europe Convention on AI.

At the same time, the completion of the EU AI Act is still a moving target, as some politicians have made the mistake of assuming it is possible to trade the protection of rights for innovation. *Technologies that fail to protect rights are not innovative, they are oppressive and stifling*. This holds true for the Council of Europe Convention on AI as well. On the US side, the same realization seems to be guiding President Biden in opening the legislative box for protecting children and limiting massive and indiscriminate data collection by tech companies.

Still, our survey of national AI policies and practices also revealed the hard work of many NGOs, advocates, academics, and government officials, around the world, who have fully engaged the challenges that AI poses and are prepared to stand on the front lines in defense of fundamental rights. Concerning in this regard are attempts to exclude civil society organizations from the Council of Europe's table of negotiations. Negotiations behind closed door is something we take seriously and report negatively as public participation is one of our key metrics for the evaluation of AI policies and practices.

We cannot say enough to thank the extraordinary CAIDP team members –the Global Academic Network, the Teaching Fellows, the Policy Group, the Research Group, the Team Leaders, the law school externs, and friends – who made possible this report. From an early project with a handful of people, the current report reflects the efforts and dedication of

more than 200 experts in more than 60 countries. They did the hard work of researching and writing, presenting for discussion, and then preparing the assessments and ratings that make possible comparative analysis. We are also grateful to the advisors and reviewers who provided comments on earlier drafts of the report and direction for future editions. Our board members and dedicated volunteers have kept us on course during this period of remarkable growth. And we thank the benefactors and supporters of CAIDP who have helped establish one of the most influential organizations in the field of AI policy. Together we share a commitment to *a better society, more fair, more just — a world where technology promotes broad social inclusion based on fundamental rights, democratic institutions, and the rule of law.*

To those in the AI policy field, whether advisors, decisionmakers, heads of government, independent experts, or simply members of the public who are interested in the growing impact of artificial intelligence on our lives and our societies, we hope you will give this report your attention. The rate of change is accelerating. We must act now to preserve our rights and freedom.

As always, we welcome your advice, suggestions, revisions, and updates. Please send editorial comments to editor@caidp.org and visit our website caidp.org to find more about our activities, recent policy developments and how to get involved.

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Please note also that the 2023 members of the CAIDP Research Group are preparing updates that will appear in the next edition of *Artificial Intelligence and Democratic Values*. Their names and affiliations will be found at the CAIDP website under "Research Group 2023."

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Endorsements

"CAIDP's flagship report provides insightful information how the AI principles are translated into practice across 75 countries".
- Wonki Min, SUNY Korea (2023)

""It is a great exercise of comparative digital law in action,providing a comprehensive perspective on the evolution of AI policy also contributing to underline the constitutional relationship between AI & democracy. Digital Democracy and rule of law in the digital context will be the real challenges for the next decade"
- Oreste Pollicino (2023)

"A very worthwhile analysis."
- Stuart Russel, University of Berkeley, California (2022)

"An impressive body of work."
- Alessandro Acquisti, Carnegie Mellon University (2022)

"An excellent report, a very useful tool for the community and a reference to see nexus between AI and Democratic Values"
- Leyla Keser, Istanbul Bilgi University (2022)

"A very insightful report on AI laws and policies that addresses significant international developments and provides a terrific comparison of AI laws and policies across 50 countries."
- Lee J. Tiedrich, Duke University (2022)

"This report is unique in that it compares AI policies and practices around the world and should inspire progress toward trustworthy and human-centric AI. The report also documents the important role of digital rights and consumer groups in this endeavor."
- Ursula Pachl, European Consumer Association (BEUC) (2022)

"It's rare to read a document that has the potential to influence national policies on artificial intelligence around the world. The country descriptions and evaluations are thoughtfully organized, well-written, and carefully documented. The country rankings enable readers to have a broad understanding of who the leaders are and why, while pointing out what still needs to be done. The *AI and Democratic Values* index gives

me hope that AI policy efforts can improve human rights, social justice, and dignity."
- Ben Shneiderman, author, *Human-Centric AI* (Oxford 2022)

"In this historical moment of global interest negotiation and competition on AI we are in right now, we urgently need a shared narrative serving the human interest and democracy. With its comprehensive overview of key global and local power actors and initiatives **The Artificial Intelligence and Democratic Values Index** is an essential instrument for the facilitation of this shared global dialogue on AI now and in many years to come."
- Gry Hasselbalch, DataEthics.eu, InTouchAI.eu (2022)

"This is a very ambitious and important exercise. The outcome is impressive- detailed and rigorous."
- Valsamis Mitsilegas, Queen Mary University of London (2022)

"This comparative study sheds critical light on the adoption of Artificial Intelligence in democratic societies. **AI and Democratic Values** is an indispensable reference source for regulators, reporters, academics, and practitioners
- Dr. Pablo G. Molina, Georgetown University and founder, International Applied Ethics and Technology Association (iaeta.org) (2022)

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EXECUTIVE SUMMARY

Purpose and Scope

 Artificial Intelligence and Democratic Values is the first global survey to assess progress toward trustworthy AI, based on detailed narrative reports, combined with a methodology that produces ratings and rankings for national AI policies and practices.

 The **AI Index** has these objectives: (1) to document the AI policies and practices, based on publicly available sources, (2) to establish a methodology for the evaluation of AI policies and practices, based on global norms, (3) to provide a basis for comparative evaluation, (4) to provide the basis for future evaluations, and (5) to ultimately encourage all countries to make real the promise of AI that is trustworthy, human-centric, and provides broad social benefit to all.

 Artificial Intelligence and Democratic Values focuses on human rights, rule of law, and democratic governance metrics. Endorsement and implementation of the OECD/G20 AI Principles is among the primary metrics. Opportunities for the public to participate in the formation of national AI policy, as well as the creation of independent agencies to address AI challenges, is also among the metrics. Patents, publications, investment, and employment impacts are important metrics for the AI economy, but they are not considered here.

 Artificial Intelligence and Democratic Values will be published on an annual basis and will evolve as country practices change and new issues emerge.

The 2023 Edition

The 2023 edition of the report updates and expands the initial report. Among the key changes:

- The number of countries assessed increased from 50 to 75
- Implementation of the UNESCO Recommendation on AI Ethics is now one of the key metrics to assess progress toward human-centric and trustworthy AI.
- For the metric concerning Implementation of the OECD AI Principles, we have awarded top scores to Canada, France, Japan, and Korea, the countries that were central to the development and implementation of the first global framework for AI policy.
- For the metric concerning the AI-related Global Privacy Assembly resolutions, the 2022 Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology has been added.
- Additional efforts were made to normalize scores across key metrics. For example, the determination of implementation of the Universal Declaration for Human Rights now tracks the designation of Freedom House for countries as "Free," "Partly Free," and "Not Free."
- The scores for country reports previously published were reviewed and revised based on developments during the past year concerning AI policies and practices.
- The number of researchers participating in the project has grown significantly. The 2023 CAIDP Research Group now includes almost 200 participants from more than 60 countries.
- We acknowledge the comments of several reviewers who recommended a more detailed approach to the review of human rights. Additional recommendations concern expanded coverage of AI and immigration and AI and criminal justice. We will address these topics in the next edition.

Findings

- **The OECD/G20 AI Principles have Framed the Global Debate over AI policy**. There are hundreds of frameworks for ethical AI, but only the OECD/G20 Principles have significantly shaped the policies and practices of national governments. Over 50 governments have formally endorsed the OECD/G20 AI Principles.

- **Governments have Both National Ambitions and Collaborative Goals**. National AI policies typically reflect ambitions to be a leader in AI, to establish centers of AI excellence, and to promote economic growth. Many of these ambitions will set countries in competition for investment, personnel, and deployment. At the same time, countries recognize the need for global cooperation in such areas as public health, climate change, and sustainable development.

- **AI Safeguards Build on Data Protection Law.** AI policy safeguards follows from other laws and policy frameworks, most notably data protection. The GDPR (Article 22), the Modernized Council of Europe Privacy Convention (Article 9), and the recently adopted California Privacy Rights Act in the US include explicit provisions for AI. The Global Privacy Assembly, the international conference of data protection officials, has recently adopted a sweeping resolution on the need for AI accountability.

- **Facial Surveillance as an AI "Red Line."** Few AI applications are more controversial than the use of AI for surveillance in public spaces. The use of facial recognition on a general population has raised widespread controversy with many NGOs stating it should be prohibited. Other controversial AI applications include the scoring of citizens, criminal sentencing, administrative service decisions, and hiring assessments.

- **Concern About Autonomous Weapons Remains**. The risk of lethal autonomous weapons was among the first AI issues to focus the attention of government policymakers. Although many other AI policy issues have emerged in the last few years, concerns about autonomous weapons remains.

- **NGOs are Powerful Advocates for the Public.** In Europe, civil society groups have published substantial reports on AI policy, documented abuses, and called for reform. Their advocacy has also strengthened democratic institutions which must now consider legal measures to address public concerns.

- **AI Policy is in the Early Days, but the Pace is Accelerating.** AI research can be traced back to the 1950s but the effort of national

governments to develop formal frameworks for AI policy is a recent phenomenon. Governments around the world are moving rapidly to understand the implications of the deployment of AI as more systems are deployed. We anticipate that the rate of AI policymaking will accelerate in the next few years.

Recommendations

1. *Countries must establish national policies for AI that implement democratic values*
2. *Countries must ensure public participation in AI policymaking and also create robust mechanisms for independent oversight of AI systems*
3. *Countries must guarantee fairness, accountability, and transparency in all AI systems*
4. *Countries must commit to these principles in the development, procurement, and implementation of AI systems for public services*
5. *Countries must halt the use of facial recognition for mass surveillance*
6. Countries must curtail the deployment of lethal autonomous weapons
7. Countries must begin implementation of the UNESCO AI Recommendation
8. Countries must establish a comprehensive, legally binding convention for AI

THE GLOBAL AI POLICY LANDSCAPE

As a field of research, AI policy is in the very early stages. Only in the last few years have national governments formally considered and adopted policy frameworks that explicitly discuss "Artificial Intelligence."[1] While government funding for work on Artificial Intelligence goes back to the mid-1950s, it would be many years before governments examined the consequences of this research. That gap is now closing. Governments around the world confront important decisions about AI priorities, AI ambitions, and AI risks. Much of this report concerns the current policies and practices of national governments.

In addition to national governments, many intergovernmental organizations are pursuing AI policies and initiatives. This section provides an overview of these organizations, listed in a simple A to Z. We also note the important work of technical associations and civil society organizations This section briefly summarizes these activities, as of early 2023.

The Council of Europe

The Council of Europe (COE) is the continent's leading human rights organization.[2] The COE is comprised of 47 member states, 27 of which are members of the European Union. All COE member states have endorsed the European Convention of Human Rights, a treaty designed to protect human rights, democracy and the rule of law. Article 8 of the Convention, concerning the right to privacy, has influenced the development of privacy law around the world.

The COE Convention 108 (1981) is the first binding international instrument which protects the individual against abuses which may accompany the collection and processing of personal data and which regulates the transborder flow of personal data.[3]

In 2018, the Council of Europe amended Convention 108 and opened for signature and ratification the COE Modernized Convention 108+.[4] Article 9(1)(c) specifically addresses AI decision-making. As the COE explains, the "modernised Convention extends the catalogue of information to be transmitted to data subjects when they exercise their right

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[1] Marc Rotenberg, *AI Policy Sourcebook* (2019, 2020).
[2] Council of Europe, *Who we are,* https://www.coe.int/en/web/about-us/who-we-are
[3] Council of Europe, Treaty office, *Details of Treaty No. 108,*
https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/108
[4] Council of Europe, Data Protection, Modernisation of Convention 108,
https://www.coe.int/en/web/data-protection/convention108/modernised

of access. Furthermore, data subjects are entitled to obtain knowledge of the reasoning underlying the data processing, the results of which are applied to her/him. This new right is particularly important in terms of profiling of individuals."[5] Forty-two states have signed the protocol amending the Privacy Convention.[6]

Several new AI initiatives are underway at the Council of Europe, including at the Council of Ministers, the COE Parliamentary Assembly. Marija Pejčinović Burić, Secretary General of the Council of Europe, has said "It is clear that AI presents both benefits and risks. We need to ensure that AI promotes and protects our standards. I look forward to the outcome of the work of the Ad hoc Committee on Artificial Intelligence (CAHAI). The Council of Europe has, on many occasions, demonstrated its ability to pioneer new standards, which have become global benchmarks."[7]

Citing the risks to privacy and data protection in 2021, the Council of Europe called for strict rules to limit the use of facial recognition.[8] The guidelines were developed by the Consultative Committee of the Council of Europe Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data,[9] reflecting the close connection between traditional rules for data protection and the emerging realm of AI policy.

CAHAI

The COE Council of Ministers established the Ad Hoc Committee on Artificial Intelligence (CAHAI) in September 2019.[10] The aim of the CAHAI is to "examine the feasibility and potential elements on the basis of broad multi-stakeholder consultations, of a legal framework for the

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[5] Council of Europe, Data Protection, *Modernisation of Convention 108: Overview of the novelties,* https://rm.coe.int/modernised-conv-overview-of-the-novelties/16808accf8

[6] Council of Europe, Treaty Office, *Chart of signatures and ratifications of Treaty 223* (Status as of Nov. 22, 2020), https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/223/signatures

[7] Council of Europe, *Artificial intelligence and human rights,* https://www.coe.int/en/web/artificial-intelligence/secretary-general-marija-pejcinovic-buric

[8] Council of Europe, *Facial recognition: strict regulation is needed to prevent human rights violations* (Jan. 28, 2021), https://www.coe.int/en/web/portal/-/facial-recognition-strict-regulation-is-needed-to-prevent-human-rights-violations-

[9] Council of Europe, *Details of Treaty No.108 of 1981,* https://www.coe.int/en/web/conventions/full-list?module=treaty-detail&treatynum=108

[10] Council of Europe, *The Council of Europe established an Ad Hoc Committee on Artificial Intelligence - CAHAI* (Sept. 11, 2019), https://www.coe.int/en/web/artificial-intelligence/-/the-council-of-europe-established-an-ad-hoc-committee-on-artificial-intelligence-cahai

development, design and application of artificial intelligence, based on the Council of Europe's standards on human rights, democracy and the rule of law."[11] The Council of Ministers approved the first progress report of the CAHAI in September 2020.[12]

The CAHAI held its final meeting in December 2021.[13] At the end of the meeting, the CAHAI adopted the "Possible elements of a legal framework on artificial intelligence, based on the Council of Europe's standards on human rights, democracy and the rule of law." The CAHAI framework contains an outline of the legal and other elements which in the view of the Committee could be included in legally binding or non-legally binding instruments that will make up an appropriate legal framework on AI of the Council of Europe. The document outlines the "Possible elements of a legal framework on artificial intelligence, based on the Council of Europe's standards on human rights, democracy and the rule of law." The CAHAI framework was submitted to the Committee of Ministers for further consideration.

Committee of Ministers

In September 2020 the Committee of Ministers approved the CAHAI progress report, which concluded that the "Council of Europe has a crucial role to play today to ensure that AI applications are in line with human rights protections."[14] The Committee of Ministers asked the CAHAI to draft a feasibility study on a legal instrument that could "regulate the design, development and application of AI that have a significant impact on human rights, democracy and the rule of law." The Committee of Ministers also proposed that the CAHAI should examine "human rights impact assessments" and "certification of algorithms and AI systems." The Committee of Ministers will review the recommendation in early February 2022. These initiatives follow the 2020 Recommendation of the Committee of Ministers to member States on the human rights impacts of algorithmic

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[11] Council of Europe, *CAHAI - Ad hoc Committee on Artificial Intelligence,*
https://www.coe.int/en/web/artificial-intelligence/cahai
[12] Council of Europe, *Ad hoc Committee on Artificial Intelligence (CAHAI): Progress Report* (Sept. 23, 2020),
https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016809ed062
[13] Council of Europe, The CAHAI held its 6th and final plenary meeting (Dec. 2, 2021), https://www.coe.int/en/web/artificial-intelligence/-/outcome-of-cahai-s-6th-plenary-meeting
[14] Council of Europe, *Ad hoc Committee on Artificial Intelligence (CAHAI): Progress Report* (Sept. 23, 2020),
https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016809ed062

systems[15] and its 2019 Declaration on the manipulative capabilities of algorithmic processes.[16]

In March 2021, the Committee of Ministers issued a comprehensive declaration on the need to ensure that AI systems for social services respect human rights.[17] The Committee emphasized said that such systems should be developed and implemented in accordance with the principles of legal certainty, legality, data quality, non-discrimination, and transparency. The Ministers also recommended effective arrangements to protect vulnerable persons from serious or irreparable harm.

In November 2021, the Committee of Ministers also issued a Recommendation on the protection of individuals with regard to automatic processing of personal data in the context of profiling. The Committee stressed that "respect for fundamental rights and freedoms, notably the rights to human dignity and to privacy but also to freedom of expression, and for the principle of non-discrimination and the imperatives of social justice, cultural diversity and democracy, should be guaranteed, in both the public and private sectors, during the profiling operations."[18]

European Committee on Crime Problems

In September 2021, based on the results of the 2020 Feasibility Study on a future Council of Europe instrument on artificial intelligence and criminal law,[19] the CDPC set up a Drafting Committee consisting of experts appointed by the members of the CDPC tasked with the elaboration of an instrument on AI and criminal law related to vehicles and automated

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[15] Committee of Ministers, *Recommendation CM/Rec(2020)1 on the human rights impacts of algorithmic systems* (Apr. 8, 2020)
https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[16] Committee of Ministers, *Declaration on the manipulative capabilities of algorithmic processes* (Feb. 13, 2019)

[17] Council of Europe, *Declaration by the Committee of Ministers: the use of computer-assisted or AI-enabled decision making by public authorities in the area of social services must respect human rights* (Mar. 17, 2021),
https://www.coe.int/en/web/artificial-intelligence/newsroom/-/asset_publisher/csARLoSVrbAH/content/declaration-by-the-committee-of-ministers-the-use-of-computer-assisted-or-ai-enabled-decision-making-by-public-authorities-in-the-area-of-social-servi

[18] Committee of Ministers, *Recommendation CM/Rec(2021)8 on the protection of individuals with regard to automatic processing of personal data in the context of profiling* (Nov. 3, 2021)
https://search.coe.int/cm/pages/result_details.aspx?ObjectId=0900001680a46147

[19] European Committee on Crime Problems, *Feasibility Study on a future Council of Europe instrument on artificial intelligence and criminal law* (Sept.,4 2020)
https://rm.coe.int/cdpc-2020-3-feasibility-study-of-a-future-instrument-on-ai-and-crimina/16809f9b60

driving.[20] One of the main purposes of this instrument would be to "ensure the development of AI systems in accordance with the fundamental rights protected by Council of Europe instruments."[21] In November 2021, the Drafting Committee held its first meeting but failed to agree on the bindingness of the instrument.[22]

Parliamentary Assembly

In October 2020, the Parliament Assembly of the Council of Europe has adopted a new resolution on the Need for Democratic Governance of Artificial Intelligence.[23] The Assembly called for "strong and swift action" by the Council of Europe. The parliamentarians warned that "soft-law instruments and self-regulation have proven so far not sufficient in addressing these challenges and in protecting human rights, democracy and rule of law."

In a set of recommendations examining the opportunities and risks of AI for democracy, human rights and the rule of law adopted in October 2020 as well, the Parliamentary Assembly called on the Committee of Ministers to take into account the particularly serious potential impact of the use of artificial intelligence "in policing and criminal justice systems"[24] or "on the enjoyment of the rights to equality and non-discrimination", [25] when assessing the necessity and feasibility of an international legal framework for artificial intelligence.

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[20] European Committee on Crime Problems, *Drafting Committee to elaborate an instrument on artificial intelligence and criminal law – Terms of Reference / Working methods* (Sept. 16, 2021) https://rm.coe.int/cdpc-2021-2-terms-of-reference-cdpc-aicl/1680a18ffe

[21] European Committee on Crime Problems, *Drafting Committee to elaborate an instrument on artificial intelligence and criminal law – Terms of Reference / Working methods*, op. cit., p. 11.

[22] European Committee on Crime Problems, *1st meeting of the Drafting Committee to elaborate an instrument on Artificial Intelligence and Criminal Law* (Nov. 15-16 2021)

[23] Council of Europe, Parliamentary Assembly, *Need for democratic governance of artificial intelligence* (Oct. 22, 2020), https://pace.coe.int/en/files/28803/html

[24] Parliamentary Assembly, *Recommendation 2182(2020) Justice by algorithm – The role of artificial intelligence in policing and criminal justice systems* (Oct. 22, 2020) https://pace.coe.int/en/files/28806/html; See also, *Resolution 2342 (2020)* https://pace.coe.int/en/files/28805

[25] Parliamentary Assembly, *Recommendation 2183 (2020) Preventing discrimination caused by the use of artificial intelligence* (Oct. 22, 2020) https://pace.coe.int/en/files/28809/html; See also, *Resolution 2343 (2020)* https://pace.coe.int/en/files/25318/html

European Court of Human Rights

The European Court of Human Rights has generated an abundant amount of case law interpreting Article 8 of the European Convention on Human Rights on the right to private life. The opinions of the Court on privacy and data protection are widely regarded by other courts. The Court has dealt with numerous aspects relating to the protection of personal data, which has been deemed of fundamental importance to a person's enjoyment of a person's right to respect for private and family life as guaranteed by Article 8. The Court has addressed privacy challenges in relation to telephone conversations, telephone numbers, computers, video surveillance, voice recording, bulk interceptions of telecommunications and the internet.[26] However, to date, the Court has not addressed matters relating to AI tools, including automated decision-making based on algorithms.

Commissioner for Human Rights

In January 2021, at a virtual event organized by the German Federal Foreign Office and Federal Ministry of Justice and Consumer Protection as part of Germany's Chairmanship of the Committee of Ministers of the Council of Europe, the Commissioner for Human Rights started her speech on "Human Rights in the Era of AI – Europe as international Standard Setter for Artificial Intelligence" by asserting that "Ensuring that technological development works for and not against human rights, democracy and the rule of law is one of the biggest tasks that states face".[27]

Her speech refers to and builds on the 10-point Recommendation on AI and human rights she addressed to Council of Europe member states in May 2019.[28] It focused more specifically on 1) Human rights impact assessment, 2) Public consultations 3) Obligations of member states to facilitate the implementation of human rights standards in the private sector 4) Information and transparency 5) Independent oversight 6) Non-discrimination and equality 7) Data protection and privacy 8) Freedom of

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[26] For an overview of the case law, see European Court of Human Rights, *Mass surveillance* (Jan. 2022) https://www.echr.coe.int/documents/fs_mass_surveillance_eng.pdf; *Personal data protection* (Jan. 2022) https://www.echr.coe.int/Documents/FS_Data_ENG.pdf.

[27] Commissioner for Human Rights, *Human Rights in the Era of AI – Europe as international Standard Setter for Artificial Intelligence* (Jan. 20, 2021) https://rm.coe.int/german-cm-presidency-high-level-conference-human-rights-in-the-era-of-/1680a12379

[28] Commissioner for Human Rights, Recommendation, *Unboxing Artificial Intelligence: 10 steps to protect Human Rights* (May 2019) https://rm.coe.int/unboxing-artificial-intelligence-10-steps-to-protect-human-rights-reco/1680946e64

expression, freedom of assembly and association, and the right to work 9) Remedies 10) Promotion of "AI literacy."

Commission for the Efficiency of Justice

In December 2020, The European Commission for the Efficiency of Justice (CEPEJ) adopted a feasibility study on the establishment of a certification mechanism for artificial intelligence tools and services. The study is based on the CEPEJ Charter on the use of artificial intelligence in judicial systems. According to the CEPEJ, the Council of Europe, if it decides to create such a mechanism, would be a pioneer in this field.[29]

In December 2021, the CEPEJ adopted the 2022-2025 Action plan: "Digitalisation for a better justice." The CEPEJ Action Plan sets out as the priority assisting "States and courts in a successful transition towards digitalisation of justice in line with European standards and in particular Article 6 of the European Convention of Human Rights" on the right to a fair trial, "while also ensuring that justice is human, efficient and of high quality." "Human justice" is presented as one of the main goals the CEPEJ should take into account: "The digitalisation of justice shall make justice more efficient but must never seek to replace the judge. The judge must remain at the centre of the procedure."[30]

The European Union

Many institutions in the European Union now play a significant role in the development of AI policies and practices.

The European Commission

The European Commission plays an active role in developing the EU's overall strategy and in designing and implementing EU policies. The Commission is the initiator of EU legislation. AI was identified as a priority when the new Commission, under the Presidency of Ursula von der Leyen, was established in late 2019.[31] At that time, von der Leyen

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[29] Council of Europe, *CEPEJ: Artificial intelligence and cyberjustice at the heart of the discussions* (Dec. 11, 2020), https://www.coe.int/en/web/portal/-/cepej-artificial-intelligence-and-cyberjustice-at-the-heart-of-discussions

[30] European Commission for the Efficiency of Justice, *2022-2025 CEPEJ Action plan: "Digitalisation for a better justice"*, CEPEJ(2021)12Final (Dec. 8-9, 2021) https://rm.coe.int/cepej-2021-12-en-cepej-action-plan-2022-2025-digitalisation-justice/1680a4cf2c

[31] CAID Update 1.3, *European Commission Proposes Options for Ethical,* (Aug. 3, 2020), https://dukakis.org/center-for-ai-and-digital-policy/center-for-ai-policy-update-european-commission-proposes-four-options-for-ethical-ai/

recommended new rules on Artificial Intelligence that respect human safety and rights.[32]

Von der Leyen's proposal followed remarks by Chancellor Angela Merkel at the G20 summit in 2019, who called for the European Commission to propose comprehensive regulation for artificial intelligence. "It will be the job of the next Commission to deliver something so that we have regulation similar to the General Data Protection Regulation that makes it clear that artificial intelligence serves humanity," Merkel stated.

In February 2020, the Commission published the white paper On Artificial Intelligence -A European Approach to Excellence and Trust for public comment. The Commission subsequently proposed several options for AI regulation. Speaking to the EU Ambassadors Conference in November 2020, President von der Leyen said, "European rules on personal data protection have inspired others to modernise their own privacy rules. We must now put special focus on the international transfer of data, particularly after a recent ruling of the European Court of Justice."[33] And in remarks to the Council on Foreign Relations, she said "we must work together on a human-centric vision on AI - a global standard aligned with our values."[34]

Following the U.S. election in November 2020, the European Commission developed a new framework for transatlantic relations. On December 2, 2020, the European Commission proposed a New EU-US Agenda for Global Change. The New Agenda covers a wide range of topics, but it is notable that the Commission states, "we need to start acting together on AI - based on our shared belief in a human- centric approach and dealing with issues such as facial recognition. In this spirit, the EU will propose to start work on a Transatlantic AI Agreement to set a blueprint for regional and global standards aligned with our values."[35] The Commission further states, "We must also openly discuss diverging views on data governance and see how these can be overcome constructively. The EU and the US

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[32] European Commission, *A Union that Strives for more: the first 100 days* (Mar. 6, 2020), https://ec.europa.eu/commission/presscorner/detail/en/ip_20_403

[33] European Commission, *Speech by President von der Leyen at the EU Ambassadors' Conference 2020 (*Nov. 10, 2020), https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_20_2064

[34] Council on Foreign Relations, *A Conversation with Ursula von der Leyen* (Nov. 20, 2020), https://www.cfr.org/event

[35] European Commission and High Representative of the Union for Foreign Affairs and Security Policy, *Joint Communication to the European Parliament, the European Council and the Council: A New EU-US Agenda for Global Change* (Dec. 2, 2020) (emphasis in the original), https://ec.europa.eu/info/sites/info/files/joint-communication-eu-us-agenda_en.pdf

should intensify their cooperation at bilateral and multilateral level to promote regulatory convergence and facilitate free data flow with trust on the basis of high standards and safeguards."

The Trade and Technology Council

At the US-EU Summit in Brussels in June 2021, President von der Leyen launched together with US President Biden the EU-US Trade and Technology Council (TTC). One of its main purposes is to coordinate approaches to key technology issues and deepen transatlantic trade and economic relations based on shared democratic values. The Trade and Technology Council will include a working group on technology standards cooperation including AI and another one on the misuse of technology threatening security and human rights. For the EU, the TTC is co-chaired by European Commission Executive Vice Presidents Valdis Dombrovskis and Margrethe Vestager and for the US by Trade Representative Katherine Tai, Secretary of Commerce Gina Raimondo and Secretary of State Anthony Blinken.

In a joint statement following the TTC inaugural meeting in Pittsburgh in September 2021, "the European Union and the United States acknowledge that AI technologies yield powerful advances but also can threaten our shared values and fundamental freedoms if they are not developed and deployed responsibly or if they are misused. The European Union and the United States affirm their willingness and intention to develop and implement AI systems that are innovative and trustworthy and that respect universal human rights and shared democratic values."[36] They also agreed on the importance of public consultation as the TTC undertakes its work. As a result, in October 2021, the Commission launched an online consultation platform on the TTC[37] allowing stakeholders to share their views and make recommendations as well as be informed about its work.

The EU AI Act

In April 2021 The European Commission published the "AI package. This package consisted of: a Communication on Fostering a European Approach to Artificial Intelligence; the Coordinated Plan with Member States: 2021 update; a proposal for an AI Regulation laying down harmonised rules for the EU (the "AI Act").[38] In January 2022, The

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[36] *EU-US Trade and Technology Council Inaugural Joint Statement* (Sept. 29, 2021) https://ec.europa.eu/commission/presscorner/detail/e%20n/statement_21_4951

[37] Futurium Platform, *Trade and Technology Council Community* https://futurium.ec.europa.eu/en/EU-US-TTC

[38] European Commission, *A European approach to artificial intelligence,* https://digital-strategy.ec.europa.eu/en/policies/european-approach-artificial-intelligence.

European Commission proposed to define a set of principles for a human-centered digital transformation.[39]

The draft AI Act follows a risk-based approach and proposes to categorize AI systems based on the four different risk levels they create: 1) an unacceptable risk; 2) a high risk; 3) limited risk; or 4) minimal risk. No limitations or requirements are set for use of AI systems creating minimal or low risk.

The draft AI Act prohibits certain AI practices that create unacceptable risk as they contradict EU values and fundamental rights. The draft Act proposes to prohibit four AI practices: 1) deployment of subliminal techniques beyond a person's consciousness, 2) exploitation of the vulnerabilities of specific vulnerable groups, 3) social scoring, and 4) use of 'real-time' remote biometric identification systems in publicly accessible spaces for law enforcement.

The draft AI Act sets out specific requirements for high-risk AI systems, that create an adverse impact on safety or fundamental rights. This includes AI systems that are product or safety components or systems used in the areas listed in Annex III of the draft AI Act, including such areas as biometric identification and categorization, education, employment, law enforcement, migration, asylum and border control. For other AI systems that do not pose high risks, the draft AI Act imposes limited transparency rules. The draft Act classifies as limited-risk AI systems intended to interact with natural persons, emotion recognition systems and biometric categorization systems, and AI systems used to generate or manipulate image, audio or video content.

The Commission proposal is subject to review and amendment by the Parliament and the Council, and then a subsequent negotiation, known as the "trilogue."[40]

Fundamental Rights in the Digital Age

In December 2021, the European Commission released its annual report on the application of the Charter of Fundamental Rights in the EU. It is the first thematic report and it focuses on the challenges in protecting fundamental rights in the digital age.[41] One of the key policy areas of the

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[39] European Commission, *Declaration on European Digital Rights and Principles* (Jan. 26, 2022), https://digital-strategy.ec.europa.eu/en/library/declaration-european-digital-rights-and-principles

[40] European Council, Council of the European Union, *The ordinary legislative procedure,* https://www.consilium.europa.eu/en/council-eu/decision-making/ordinary-legislative-procedure/

[41] European Commission, *Protecting Fundamental Rights in the Digital Age – 2021 Annual Report on the Application of the EU Charter of Fundamental Rights*, COM(2021)

report concerns "Safeguarding fundamental rights where artificial intelligence is used" and another one "Supervising digital surveillance" with a paragraph dedicated to remote biometric identification.

In January 2022, the European Commission proposed to define a set of principles for a human-centered digital transformation in an interinstitutional Declaration.[42] This was one of the four cardinal points identified by the Commission in its Digital Compass in which it set its vision for a successful digital transformation of Europe by 2030.[43] In December 2022, in the margins of the European Council, Commission President Ursula von der Leyen signed the Declaration, together with the President of the European Parliament Roberta Metsola, and Czech Prime Minister Petr Fiala for the rotating Council presidency.[44]

The European Parliament

The European Parliament is co-legislator, together with the Council of the European Union. The Parliament has convened hearings and adopted resolutions to outline the elements of EU legislation.[45] One resolution urged the Commission to establish legal obligations for artificial intelligence and robotics, including software, algorithms and data. A second would make those operating high-risk AI systems strictly liable for any resulting damage. And a third resolution on intellectual property rights makes clear that AI should not have legal personality; only people may claim IP rights.

The European Parliament adopted all of these proposals in sweeping majorities, across parties and regions. But even those proposals are unlikely to meet the concerns of civil society. As Access Now and EDRi said of the resolution on AI ethics, "They are cautious and restrained on fundamental rights, taking only tentative steps to outline the biggest threats that artificial intelligence pose to people and society, while also failing to propose a

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819 final (Dec. 12, 2021), https://ec.europa.eu/info/sites/default/files/1_1_179442_ann_rep_en_0.pdf

[42] European Commission, *Declaration on European Digital Rights and Principles* (Jan. 26, 2022), https://digital-strategy.ec.europa.eu/en/library/declaration-european-digital-rights-and-principles

[43] European Commission, *2030 Digital Compass: the European way for the Digital Decade* COM(2021) 118 final, (March 9, 2021) https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52021DC0118

[44] European Commission, *Digital Rights and Principles: Presidents of the Commission, the European Parliament and the Council sign European Declaration* (Dec. 15, 2022), https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7683

[45] CAIDP Update 1.12, *European Parliament Adopts Resolutions on AI* (Oct. 24, 2020), https://dukakis.org/center-for-ai-and-digital-policy/caidp-update-european-parliament-adopts-resolutions-on-ai/

legislative framework that would address these threats or provide any substantive protections for people's rights."

The influential LIBE Committee has also highlighted concerns about AI and fundamental rights and AI in criminal justice.[46] In February 2020, the Committee held a hearing on Artificial Intelligence and Criminal Law, and examined the benefits and risks of AI, predictive policing, facial recognition, as well as the ethical and fundamental rights implications. LIBE worked in association with the United Nations Interregional Crime and Justice Research Institute (UNICRI), the European Union Agency for Fundamental Rights (FRA), and the Council of Europe (COE). In November 2020, LIBE issued an opinion concerning AI and the application of international law.[47]

The JURI Committee, responsible for Legal Affairs, also requested a significant report on Artificial Intelligence and Civil Liability.[48] The report "demonstrates how technology regulation should be technology-specific, and presents a Risk Management Approach, where the party who is best capable of controlling and managing a technology-related risk is held strictly liable, as a single entry point for litigation." The report outlines the application to four case studies. Following the European Parliament's October 2020 resolution on the topic, the European Commission published an inception impact assessment on a likely legislative initiative to adapt the EU liability rules to the digital age and circular economy in June 2021[49] and launched a public consultation on the topic from October 2021 until January 2022.[50]

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[46] CAIDP Update 1.8 *LIBE Committee of EU Parliament Examines AI Practices, Data Protection,* (Sept. 9, 2020), https://dukakis.org/center-for-ai-and-digital-policy/caidp-update-libe-committee-of-eu-parliament-examines-ai-practices-data-protection/

[47] European Parliament, Committee on Civil Liberties, Justice and Home Affairs, *on artificial intelligence: questions of interpretation and application of international law in so far as the EU is affected in the areas of civil and military uses and of state authority outside the scope of criminal justice (2020/2013 (INI)),* (Nov. 23, 2020), https://www.europarl.europa.eu/doceo/document/LIBE-AD-652639_EN.pdf

[48] Policy Department for Citizens' Rights and Constitutional Affairs, Directorate-General for Internal Policies, *Artificial Intelligence and Civil Liability*, PE 621.296 JURI (July 14, 2020), https://www.europarl.europa.eu/RegData/etudes/STUD/2020/621926/IPOL_STU(2020)621926_EN.pdf

[49] European Commission, *Inception Impact Assessment - Adapting liability rules to the digital age and circular economy* (Jun. 30, 2021) https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12979-Civil-liability-adapting-liability-rules-to-the-digital-age-and-artificial-intelligence_en

[50] European Commission, *Public consultation on Civil liability – adapting liability rules to the digital age and artificial intelligence* (Oct. 18, 2021)

Following a report by the JURI Committee, the European Parliament adopted in January 2021 a resolution on "artificial intelligence: questions of interpretation and application of international law in so far as the EU is affected in the areas of civil and military uses and of state authority outside the scope of criminal justice"[51]. In its resolution, the Parliament reiterated its call for an EU strategy to prohibit the use of lethal autonomous weapon systems and for a ban on "killer robots". It also called for the EU to play a leading role in creating and promoting a global framework governing the military use of AI. Regarding the use of AI in the public sector, especially healthcare and justice, the Parliament stressed that "the use of AI systems in the decision-making process of public authorities can result in biased decisions that negatively affect citizens, and therefore should be subject to strict control criteria regarding their security, transparency, accountability, non-discrimination, social and environmental responsibility, among others; urges Member States to assess the risks related to AI-driven decisions connected with the exercise of State authority, and to provide for safeguards such as meaningful human supervision, transparency requirements and the possibility to contest such decisions". The Parliament also invited the Commission to "assess the consequences of a moratorium on the use of facial recognition systems, and, depending on the results of this assessment, to consider a moratorium on the use of these systems in public spaces by public authorities and in premises meant for education and healthcare, as well as on the use of facial recognition systems by law enforcement authorities in semi-public spaces such as airports, until the technical standards can be considered fully fundamental rights-compliant, the results derived are non-biased and non-discriminatory, and there are strict safeguards against misuse that ensure the necessity and proportionality of using such technologies."

In May 2020, the Directorate General for Parliamentary Research Services of the European Parliament published *The Impact of the General Data Protection Regulation (GDPR) on Artificial Intelligence.*[52] The study

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https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12979-Civil-liability-adapting-liability-rules-to-the-digital-age-and-artificial-intelligence/public-consultation_en

[51] European Parliament, *Resolution on artificial intelligence: questions of interpretation and application of international law in so far as the EU is affected in the areas of civil and military uses and of state authority outside the scope of criminal justice* (2020/2013(INI)), (Jan. 20, 2021) https://www.europarl.europa.eu/doceo/document/TA-9-2021-0009_EN.html

[52] European Parliament Think Tank, *The impact of the General Data Protection Regulation (GDPR) on artificial intelligence* (June 25, 2020),

examines the tensions and proximities between AI and data protection
principles, such as in particular purpose limitation and data minimization.
And in June 2020 the European Parliament established a Special Committee
on Artificial Intelligence to study the impact of AI and to propose a roadmap
for the EU. According to the decision of Parliament, the Committee should
pursue a "holistic approach providing a common, long-term position that
highlights the EU's key values and objectives."[53]

The work of the European Parliament on Artificial Intelligence also
intersects with the Digital Services Act, an initiative to overhaul the E-
Commerce Directive which has been the foundation of the digital single
market for the last twenty years.[54]   At the end of October, 2020,
European Margrethe Vestager said the proposed Digital Services Act
package will aim to make ad targeting more transparent and to ensure
companies are held accountable for their decisions.[55] "The biggest
platforms would have to provide more information on the way their
algorithms work, when regulators ask for it," Vestager said. Following the
adoption of the Digital Services Package in the first reading by the European
Parliament in July 2022, the Council of the EU adopted as well the Digital
Services Act. The Act was then signed by the Presidents of both institutions
and published in the Official Journal.

Committees – AIDA, IMCO, LIBE

There are three committees within the European Parliament that
have primary jurisdiction for the development of AI policy. The AIDA
Committee - the Special Committee on Artificial Intelligence in a Digital
Age – was established by the European Parliament on June 18, 2020 with
the goal of "setting out a long-term EU roadmap on Artificial Intelligence
(AI)."[56] Over an 18-month period, AIDA organized hearings and
workshops with key stakeholders, including experts, policy-makers, and the

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https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_STU(202
0)641530

[53] European Parliament, *Setting up a special committee on artificial intelligence in a
digital age, and defining its responsibilities, numerical strength and term of office* (June
18, 2020), https://www.europarl.europa.eu/doceo/document/TA-9-2020-0162_EN.html

[54] European Parliament, *Digital Services Act: Opportunities and Challenges for the
Digital Single Market and Consumer Protection,*
https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/652712/IPOL_BRI(2020)65
2712_EN.pdf

[55] Matthew Broersma, *New EU Rules 'Would Open Tech Giants' Algorithms To Scrutiny*,
Silicon.co (Nov. 2, 2020) https://www.silicon.co.uk/workspace/algorithms-tech-giants-
348707

[56] European Parliament, AIDA Committee, *About: Welcome Words,*
https://www.europarl.europa.eu/committees/en/aida/about

business community. In November 2021, members of the AIDA committee met with policymakers, NGOs, and business groups in Washington, DC.

In January 2022, the rapporteur of the AIDA Committee published a draft report on artificial intelligence in a digital age.[57] Approximately 1,400 amendments were received.[58] AIDA committee anticipated the finalization of the report and a vote on the associated resolution in March 2022.

Two committees in the European Parliament have then take the reins for the proposed EU AI Act. The IMCO Committee is responsible for the legislative oversight and scrutiny of EU rules on the single market, including the digital single market, customs and consumer protection.[59] The LIBE Committee is "is responsible for the majority of legislation and democratic oversight of policies that enable the European Union to offer its citizens an area of freedom, security and justice (Article 3 TEU). While doing so, we ensure, throughout the EU, the full respect of and compliance with the EU Charter of Fundamental Rights, in conjunction with the European Convention on Human Rights."[60]

A joint hearing between IMCO and LIBE was held on January 25, 2022.[61] The two rapporteurs expressed their views on the AI Act. Brando Benifei, co-rapporteur for the Internal Market and Consumer Protection Committee, stated "Our aim is to protect citizens and consumers, and stimulate positive innovation at the same time, while focussing especially on SMEs and start-ups. A legislative framework ensuring that AI systems entering the EU single market are safe, human-centric and respect our fundamental rights and freedoms will stimulate trust among citizens, which is key to a successful and inclusive uptake of AI on our continent. That is what we will strive for." Dragoş Tudorache, co-rapporteur for the Civil Liberties, Justice and Home Affairs Committee, said, "The AI Act is a

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[57] Special Committee on Artificial Intelligence in a Digital Age, *Draft Report on artificial intelligence in a digital age*, (2020/2266(INI)) (Nov. 2, 2021), https://www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/AIDA/PR/2022/01-13/1224166EN.pdf

[58] AIDA, *AIDA Commttee Meeting, Consideration of Amendments* (Feb. 1, 2022), https://www.europarl.europa.eu/committees/en/aida-committee-meeting-consideration-of-/product-details/20220117CAN64673

[59] European Parliament, *About IMCO, Welcome Words,* https://www.europarl.europa.eu/committees/en/imco/about

[60] *European Parliament, About LIBE, Welcome Words,* https://www.europarl.europa.eu/committees/en/libe/about

[61] *Artificial Intelligence Act: EP lead committees to launch joint work on 25 January* (Jan. 24, 2022), https://portal.ieu-monitoring.com/editorial/artificial-intelligence-act-ep-lead-committees-to-launch-joint-work-on-25-january

central piece of the European regulatory environment for the digital future and the first of its kind worldwide. We have a chance to lead by example and to shape the rules of the digital world according to our values. As the heart of European democracy, the European Parliament has a key role to play: we need to find the right balance between enhancing the protection of our fundamental rights and boosting Europe's competitiveness and capacity to innovate." The two co-rapporteurs MEP Brando Benifei and MEP Dragos Tudorache unveiled their draft report in April 2022. The draft report received more than 3000 amendments that are being considered.

The Two Councils

The European Council defines the EU's overall political direction and priorities.[62] Its members are the heads of state or government of the 27 EU member states, the European Council President, and the President of the European Commission. The European Council is not one of the EU's legislating institutions, so does not negotiate or adopt EU laws. This is the prerogative of the Council of the European Union ("Council"), composed of representatives of member states' ministers.

In June 2020, the Council of the European Union set out Conclusions for Shaping Europe's Digital Future.[63] Regarding AI, the Council stressed, "some artificial intelligence applications can entail a number of risks, such as biased and opaque decisions affecting citizens' well-being, human dignity or fundamental rights, such as the rights to non-discrimination, gender equality, privacy, data protection and physical integrity, safety and security, thus reproducing and reinforcing stereotypes and inequalities. Other risks include the misuse for criminal or malicious purposes such as disinformation."

And then in October 2020, the European Council issued conclusions on the Charter of fundamental rights in the context of artificial intelligence and digital change.[64] "These conclusions are designed to anchor the EU's fundamental rights and values in the age of digitalisation, foster the EU's digital sovereignty and actively contribute to the global debate on the use of artificial intelligence with a view to shaping the international framework," the Presidency of the Council stated.

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[62] European Council https://www.consilium.europa.eu/en/european-council/
[63] Council of the European Union, *Shaping Europe's Digital Future* (June 9, 2020), https://data.consilium.europa.eu/doc/document/ST-8711-2020-INIT/en/pdf
[64] Council of the European Union, *Artificial intelligence: Presidency issues conclusions on ensuring respect for fundamental rights* (Oct. 21, 2020), https://www.consilium.europa.eu/en/press/press-releases/2020/10/21/artificial-intelligence-presidency-issues-conclusions-on-ensuring-respect-for-fundamental-rights/#

The Presidency recommended a "fundamental rights-based" approach to AI and emphasized dignity, freedoms, equality, solidarity, citizen's rights, and justice.[65] The Council urged the Union and Member States to "consider effective measures for identifying, predicting and responding to the potential impacts of digital technologies, including AI, on fundamental rights." The Council said the "Commission's announced proposal for a future regulatory framework for AI, should strengthen trust, strike a fair balance between the various interests and leave room for research and development and further innovation and technical and socio-technical developments." The Council also acknowledged the work of the FRA on AI.

The Council of the European Union, through the Transport, Telecommunications and Energy Council, has already set out proposed changes to the EU AI Act. The Slovenian Presidency (July to December 2021) published in late November 2021 compromise text Articles 1 – 7 of the AI Act.[66] The text strengthens certain provisions but would also exempt general purpose AI systems.

A compromise text dated January 13th was proposed by the French Presidency (January to June 2022), addressing Articles 8-15 and Annex IV.[67] The French Presidency aims at adopting a Council position before July 2022. The French proposal would extend the ban on social scoring to private actors, make clear that obligations for high-risk systems apply to both public and private authorities, add insurance to the list of high-risk systems, expand the definition of prohibited system that distort human behaviour, and expand the limitation on remote identification systems. At the same time, the French proposal would exclude AI systems "exclusively developed or used for military purposes" as long as it is used only for military purposes. A related provision would exclude AI systems that are exclusively developed or used for national security purposes

The Czech Republic took up the presidency of the Council for the second half of 2022. However, since the Parliament is not expected to finalize its position on the EU AI Act until late 2022, the final negotiations between the Parliament and the Council are expected to take place not

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[65] COE, *Presidency conclusions: The Charter of Fundamental Rights in the context of Artificial Intelligence and Digital Change*, 11481/20 (Oct. 21, 2020), https://www.consilium.europa.eu/media/46496/st11481-en20.pdf
[66] Council of the European Union, *Presidency Compromise Text* (Nov. 29, 2021), https://data.consilium.europa.eu/doc/document/ST-14278-2021-INIT/en/pdf
[67] Council of the European Union, *Presidency compromise text - Articles 8-15 and Annex IV* (Jan. 13, 2022), https://www.caidp.org/app/download/8367910663/CAIDP-Congress-TTC-Statement-01172022.pdf

before the Swedish presidency (January – June 2023). The Council has adopted its common position ('general approach') on the AI Act on December 6, 2022.

The Court of Justice of the European Union

Although the Court of Justice has yet to rule directly on AI policies, the Court will play a significant role as AI policies evolve and AI law is adopted.[68] Judgments of the Court concerning data transfers will also impact the development of AI systems. In the 2020 Schrems II judgment, the Court struck down the Privacy Shield framework that permitted the transfer of personal data from the European Union to the United States.[69] The Schrems II judgment will likely limit the collection and use of personal data for AI systems.

A case currently before the Court of Justice concerns the application of Article 22 of the GDPR to credit scoring in Germany. The case was referred by a German court and poses the question whether Article 22(1) prohibits the "the automated establishment of a probability value concerning the ability of a data subject to service a loan in the future."[70] AlgorithmWatch has established OpenSchufa, with the goal of making credit report scoring transparent.[71] According to AlgorithmWatch, "Germany's leading credit bureau, SCHUFA, has immense power over people's lives. A low SCHUFA score means landlords will refuse to rent you an apartment, banks will reject your credit card application and network providers will say 'no' to a new Internet contract."[72]

The European Data Protection Board

The European Data Protection Board (EDPB) is an independent European body, which contributes to the consistent application of data protection rules throughout the European Union and promotes cooperation between the EU's data protection authorities.[73]

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[68] CAIDP Update 1.1, *EU Privacy Decision Will Have Global Consequences,* (July 19, 2020), https://dukakis.org/news-and-events/center-for-ai-and-digital-policy-update-eu-privacy-decision-will-have-global-consequences/

[69] CJEU, *The Court of Justice invalidates Decision 2016/1250 on the adequacy of the protection provided by the EU-US Data Protection Shield* (July 16, 2020), https://curia.europa.eu/jcms/upload/docs/application/pdf/2020-07/cp200091en.pdf

[70] Court of Justice of the European Union, SCHUFA Holding, Case C-634-21, Request for a Preliminary Ruling (Oct. 15, 2021).

[71] *OpenSchufa, cracking the Schufa Code,* https://www.startnext.com/en/openschufa

[72] AlgorithmWatch, *OpenSCHUFA – shedding light on Germany's opaque credit scoring* (May 22, 2018), https://algorithmwatch.org/en/openschufa-shedding-light-on-germanys-opaque-credit-scoring-2/

[73] EDPB, *Who we are,* https://edpb.europa.eu/about-edpb/about-edpb_en

In a January 2020 letter to Sophie in't Veld, EDPB Chair Andrea Jelinek addressed "the appropriateness of the GDPR as a legal framework to protect citizens from unfair algorithms" and also whether the EDPB would issue guidance on the topic.[74] Jelinek responded that the GDPR is a "robust legal framework" to protect citizens' right to data protection, and highlighted several articles in the GDPR that would apply to AI systems, including Article 22, regarding the legal effects of automated processing, and Article 35, about the obligation to undertake Data Protection Impact Assessments prior to processing.

Jelinek also warned of specific challenges arising from AI. The "data maximization presumption of AI "creates an incentive for large and possibly unlawful data collection and further processing of data." She also warned that the opacity of algorithms (the "black box") can lead to lack of transparency towards the data subject and also "a loss of human autonomy for those working with algorithms." But Jelinek concluded that it would be "premature at this time" to issue guidance on what constitutes a "fair algorithm."

In a June 2020 letter to several members of the European Parliament about facial recognition and the company ClearView AI, EDPB Chair Jelinek stated "Facial recognition technology may undermine the right to respect for private life and the protection of personal data . . .It may also affect individuals' reasonable expectation of anonymity in public spaces. Such technology also raises wider issues from an ethical and societal point of view."[75]

In May 2022, pursuant with the EU Data Protection Law Enforcement Directive which provides for the EDPB to issue guidelines, recommendations and best practices in order to ensure that the Member States apply the LED consistently[76] and in view of recurring issues concerning the use of facial recognition by law enforcement authorities in various Member States, the EDPB issued guidelines on the use of facial

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[74] EDPB, *Letter to MEP Sophie in't Veld (OUT2020-0004),* https://edpb.europa.eu/sites/edpb/files/files/file1/edpb_letter_out2020_0004_intveldalgori thms_en.pdf

[75] EDPB *Letter Members of the European Parliament (OUT2020-0052)* (June 10, 2020), https://edpb.europa.eu/sites/edpb/files/files/file1/edpb_letter_out_2020-0052_facialrecognition.pdf

[76] Communication from the Commission to the European Parliament and the Council, *First report on application and functioning of the Data Protection Law Enforcement Directive (EU) 2016/680 ('LED')*, COM/2022/364 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0364&qid=1658824345764#footnote136

recognition technologies in the area of law enforcement.[77] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stressed that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[78]

The European Data Protection Supervisor

The European Data Protection Supervisor is the European Union's independent data protection authority.[79] The EDPS responsibilities include the mission to "monitor and ensure the protection of personal data and privacy when EU institutions and bodies process the personal information of individuals." In comments on the Commission's White Paper on Artificial Intelligence, the EDPS stated, "benefits, costs and risks should be considered by anyone adopting a technology, especially by public administrations who process great amounts of personal data."[80] The EDPS also expressed support for a moratorium on facial recognition in public space, "so that an informed and democratic debate can take place and until the moment when the EU and Member States have all the appropriate safeguards."

In June 2021, the EDPB Chair Andrea Jelinek and the EDPS Wojciech Wiewiórowski issued a joint opinion on the European Commission's Proposal for a Regulation laying down harmonized rules on artificial intelligence (AI). [81] They stressed the need to make clear that

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[77] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

[78] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

[79] EDPS, *About*, https://edps.europa.eu/about-edps_en

[80] EDPS, *Opinion 4/2020, EDPS Opinion on the European Commission's White Paper on Artificial Intelligence – A European approach to excellence and trust* (June 29, 2020), https://edps.europa.eu/sites/edp/files/publication/20-06-19_opinion_ai_white_paper_en.pdf

[81] *EDPB, EDPB & EDPS call for ban on use of AI for automated recognition of human features in publicly accessible spaces, and some other uses of AI that can lead to unfair*

existing EU data protection legislation, including the GDPR, applies to the processing of personal data falling under the scope of the draft AI Regulation. They also proposed that compliance with legal obligations arising from EU legislation - including on personal data protection - should be a precondition for entering the European market as CE marked product.

They also recommended several "red lines" for AI deployment, including general ban on any use of AI for automated recognition of human features in publicly accessible spaces, such as recognition of faces, gait, fingerprints, DNA, voice, keystrokes and other biometric or behavioral signals. They proposed a ban on AI systems using biometrics to categorize individuals into clusters based on ethnicity, gender, political or sexual orientation, or other grounds on which discrimination is prohibited under Article 21 of the Charter of Fundamental Rights. Furthermore, the EDPB and the EDPS said that the use of AI to infer emotions of a natural person should be prohibited, except for very specified cases. Andrea Jelinek, EDPB Chair, & Wojciech Wiewiórowski, EDPS, said:

> Deploying remote biometric identification in publicly accessible spaces means the end of anonymity in those places. Applications such as live facial recognition interfere with fundamental rights and freedoms to such an extent that they may call into question the essence of these rights and freedoms. This calls for an immediate application of the precautionary approach. A general ban on the use of facial recognition in publicly accessible areas is the necessary starting point if we want to preserve our freedoms and create a human-centric legal framework for AI. The proposed regulation should also prohibit any type of use of AI for social scoring, as it is against the EU fundamental values and can lead to discrimination.

Fundamental Rights Agency

The EU Agency for Fundamental Rights is also examining the impact of AI. In 2018, the FRA launched a project on Artificial Intelligence, Big Data and Fundamental Rights to assesses the use of AI for public

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discrimination (June 21, 2021), https://edpb.europa.eu/news/news/2021/edpb-edps-call-ban-use-ai-automated-recognition-human-features-publicly-accessible_en

administration and business in the EU.[82] A 2018 report explores discrimination in AI[83] and a 2019 FRA report examines facial recognition.[84]

In mid-December 2020, the German presidency of the EU, in collaboration with the EU Fundamental Rights Agency and German Ministry of Justice and Consumer Protection, organized a conference on AI and the European Way.[85] The conference highlighted recent papers on AI policy from the FRA. The organizers reposted the 2018 FRA report on discrimination in AI and the 2019 FRA report on facial recognition. One paper also summarized FRA AI policy initiatives between 2016 and 2020.[86] The German Government also provided its comments on the Commission White Paper on AI[87] and the detailed 2019 Opinion of the Data Ethics Commission concerning algorithm-based decision-making, AI, and data.[88] In December 2020, the FRA also issued a report on "Getting the future right-Artificial intelligence and fundamental rights in the EU."[89]

High-Level Expert Group on AI

Following the launch of the Artificial Intelligence Strategy in 2018, the European Commission appointed a group of 52 experts to advice for its implementation.[90] The group members were selected following an open

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[82] FRA, *Artificial Intelligence, Big Data and Fundamental Rights* (May 30, 2018), https://fra.europa.eu/en/project/2018/artificial-intelligence-big-data-and-fundamental-rights

[83] FRA, *Big Data: Discrimination in data-supported decision-making* (May 29, 2018), https://fra.europa.eu/en/publication/2018/bigdata-discrimination-data-supported-decision-making

[84] FRA, *Facial recognition technology: fundamental rights considerations in the context of law enforcement* (Nov. 27, 2019), https://fra.europa.eu/en/publication/2019/facial-recognition-technology-fundamental-rights-considerations-context-law

[85] *Doing AI the European way: Protecting Fundamental Rights in an Era of Artificial Intelligence* (Dec. 14, 2020), https://eu2020-bmjv-european-way-on-ai.de/en/

[86] *Policy initiatives in the area of artificial intelligence* (last updated Apr. 29, 2020), https://eu2020-bmjv-european-way-on-ai.de/storage/documents/AI_policy_initiatives_(2016-2020).pdf

[87] Die Bundesregierung, *Comments from the Federal Government of the Federal Republic of Germanyon the White Paper on Artificial Intelligence - A European Concept for Excellence and Trust, COM (2020) 65 final,* https://eu2020-bmjv-european-way-on-ai.de/storage/documents/Federal_Government's_Comments_on_the_AI_White_Paper.pdf

[88] daten ethik commission, *Opinion of the Data Ethics Commission* (2019), https://eu2020-bmjv-european-way-on-ai.de/storage/documents/Data_Ethics_Commission_Full_Report_in_English.pdf

[89] FRA, *Getting the future right- Artificial intelligence and fundamental rights* (Dec. 14, 2020) https://fra.europa.eu/en/themes/artificial-intelligence-and-big-data

[90] European Commission, *High-Level Expert Group on Artificial Intelligence,* https://ec.europa.eu/digital-single-market/en/high-level-expert-group-artificial-intelligence

selection process and comprised representatives from academia, civil society and industry. The High-Level Expert Group on Artificial Intelligence (AI HLEG) has produced four reports: Ethics Guidelines for Trustworthy AI, Policy and Investment Recommendations for Trustworthy AI, The final Assessment List for Trustworthy AI, and Sectoral Considerations on the Policy and Investment Recommendations.

According to the ethical guidelines AI should be 1 lawful — respect laws and regulations (including the EU Charter on Fundamental Rights, UN Human Rights Treaties and the Council of Europe Convention on Human Rights); 2. ethical - respect ethical principles and values and 3. robust — from a technical perspective and with consideration of its social environment.[91] Since publication in 2019, the ethics guidelines have helped frame EU policy processes with among others key requirements derived form the guidelines in the European Commission's 2021 "AI Act" proposal.[92]

International outreach for human-centric artificial intelligence initiative

In September 2021, The European Commission's Service for Foreign Policy Instruments (FPI) and the Directorate General for Communications Networks, Content and Technology (DG CONNECT), in collaboration with the European External Action Services (EEAS), launched the International outreach for human-centric artificial intelligence initiative (InTouchAI.eu) - a large foreign policy instrument project to engage with international partners on regulatory and ethical matters and promote the responsible development of trustworthy AI at global level with the main vision to ensure that AI "works for people and protects fundamental rights."[93]

G-7

The Group of Seven (G7) is an inter-governmental political forum consisting of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. The members constitute the wealthiest liberal

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[91] European Union, *Ethics guidelines for trustworthy AI* (Nov. 8, 2019), https://op.europa.eu/en/publication-detail/-/publication/d3988569-0434-11ea-8c1f-01aa75ed71a1

[92] European Commission, *Proposal for a Regulation of the European Parliament and the Council, Laying Down Harmonized Rules for Artificial Intelligence (Artificial Intelligence Act,* (Apr. 21, 2021), https://op.europa.eu/en/publication-detail/-/publication/d3988569-0434-11ea-8c1f-01aa75ed71a1

[93] European Commission, *International outreach for human-centric artificial intelligence initiative*, https://digital-strategy.ec.europa.eu/en/policies/international-outreach-ai

democracies. The group is officially organized around shared values of pluralism and representative government. The G7 is also the incubator for significant work on AI policy.

In advance of the 2016 G7 summit in Japan, then Prime Minister Shinzo Abe urged his government to develop policies for AI that could provide the basis for a global standard.[94] At the subsequent meeting of G7 ICT ministers, Japan's Communications Minister proposed international rules that would make "AI networks controllable by human beings and respect for human dignity and privacy."[95] She introduced eight basic principles Japans proposed for AI. These principles are very similar to those later adopted by the OECD and then the G20.

Prior to the 2018 G7 summit, France and Canada announced a joint undertaking on Artificial Intelligence that led to the creation of the Global Partnership on AI.[96] According to the Mission Statement of the two countries, the goal "will be to support and guide the responsible adoption of AI that is human-centric and grounded in human rights, inclusion, diversity, innovation and economic growth."[97]

In advance of the 2019 G7 summit, hosted by France, leaders of scientific societies set out a declaration on Artificial Intelligence and Society in which they stated, "Artificial intelligence (AI) is one of the technologies that is transforming our society and many aspects of our daily lives. AI has already provided many positive benefits and may be a source of considerable economic prosperity. It also gives rise to questions about employment, confidentiality of data, privacy, infringement of ethical values and trust in results."[98]

At the 2021 G7 summit hosted by the UK, the G7 Leaders committed to work together for a "values-driven digital ecosystem for the

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[94] CAIDP Update, *Prime Minister Abe's AI and Data Governance Legacy* (Aug. 30, 2020), https://www.japantimes.co.jp/news/2016/04/29/national/japan-pushes-basic-ai-rules-g-7-tech-meeting/

[95] Japan Times, *Japan pushes for basic AI rules at G-7 tech meeting* (Apr. 29, 2016), https://www.japantimes.co.jp/news/2016/04/29/national/japan-pushes-basic-ai-rules-g-7-tech-meeting/

[96] France Diplomacy, *French-Canadian Declaration on Artificial Intelligence* (June 7, 2018), https://www.diplomatie.gouv.fr/en/country-files/canada/events/article/french-canadian-declaration-on-artificial-intelligence-07-06-18

[97] Canada, Prime Minister of Canada, *Mandate for the International Panel on Artificial Intelligence* (Dec. 6, 2018), https://pm.gc.ca/en/news/backgrounders/2018/12/06/mandate-international-panel-artificial-intelligence

[98] Summit of the G7 Science Academies, Artificial intelligence and society (Mar. 26, 2019), https://royalsociety.org/-/media/about-us/international/g-science-statements/2019-g7-declaration-artificial-intelligence-and-society.pdf

common good that enhances prosperity in a way that is sustainable, inclusive, transparent and human-centric."[99] They called for a "human centric approach to artificial intelligence," building on the work of the Global Partnership for Artificial Intelligence (GPAI) advanced by the Canadian and French G7 Presidencies in 2018 and 2019.

The G7 Leaders committed to work together for a "values-driven digital ecosystem for the common good that enhances prosperity in a way that is sustainable, inclusive, transparent and human-centric." They called for a "human centric approach to artificial intelligence," building on the work of the Global Partnership for Artificial Intelligence (GPAI) advanced by the Canadian and French G7 Presidencies in 2018 and 2019, and looking forward to the GPAI Summit in Paris in November 2021.

At the 2021 G7 privacy officials also issued a statement on Data Free Flows with Trust.[100] Regarding artificial intelligence, the officials said, "human dignity, must be central to AI design; AI must be transparent, comprehensible, and explainable; and the data protection principles of purpose limitation and data minimization must apply to AI." They further said that "'red lines' are needed for AI systems that are not compatible with our values and fundamental rights."

G-20

The G20 is an international forum, made up of 19 countries and the European Union, representing the world's major developed and emerging economies.[101] Together, the G20 members represent 85 % of global GDP, 75% of international trade and two-thirds of the world's population. According to the OECD, because of its size and strategic importance, the G20 has a crucial role in setting the path for the future of global economic growth.

In the last few years, and in collaboration with the OECD, the G20 has taken a leading role in the promulgation of the global framework for AI policy. At the Osaka summit in 2019, former Prime Minister Abe and OECD Secretary General Gurria gathered support for the OECD AI Principles from the G20 countries. The preparatory work for the 2020

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[99] The White House, *Carbis Bay G7 Summit Communique* (June 13, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/13/carbis-bay-g7-summit-communique/

[100] G7 United Kingdom 2021, *Data Free Flows with Trust* (Sept. 8, 2021), https://www.caidp.org/app/download/8342900463/g7-attachment-202109.pdf

[101] OECD, *What is the G20?* https://www.oecd.org/g20/about/

summit in Riyadh provided the first opportunity to assess progress toward implementation of the OECD AI Principles.[102]

In November 2020, the G20 Leaders Declaration addressed both Artificial Intelligence and the digital economy. On AI, the G20 nations said, "We will continue to promote multi-stakeholder discussions to advance innovation and a human-centered approach to Artificial Intelligence (AI), taking note of the Examples of National Policies to Advance the G20 AI Principles. We welcome both the G20 Smart Mobility Practices, as a contribution to the well-being and resilience of smart cities and communities, and the G20 Roadmap toward a Common Framework for Measuring the Digital Economy."[103]

On the Digital Economy, the G20 said in 2020, "We acknowledge that universal, secure, and affordable connectivity, is a fundamental enabler for the digital economy as well as a catalyst for inclusive growth, innovation and sustainable development. We acknowledge the importance of data free flow with trust and cross-border data flows." The G20 Declaration further said, "We support fostering an open, fair, and non-discriminatory environment, and protecting and empowering consumers, while addressing the challenges related to privacy, data protection, intellectual property rights, and security."

The G20 advanced AI policy in the 2021 Leaders' Declaration, issued at the conclusion of the Summit in Rome.[104] Recognizing the "benefits stemming from the responsible use and development of trustworthy human-centered Artificial Intelligence (AI)," the G20 Leaders said in Rome they would encourage competition and innovation, "as well as diversity and inclusion," and the importance of international cooperation to promote research, development, and application of AI

In advance of the 2021 Summit, the G20 Digital Economy Ministers reaffirmed "their willingness to implement trustworthy Artificial Intelligence (AI) and to commit to a human-centered approach, as . . . guided by the G20 AI Principles, drawn from the OECD Recommendations on AI."[105] The Ministers also noted that the "measurement of AI, notably its

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[102] OECD G20 Digital Economy Task Force, *Examples of AI National Policies* (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf

[103] G20 Riyadh Summit, *Leaders Declaration* (Nov. 21-22, 2020), https://g20.org/en/media/Documents/G20%20Riyadh%20Summit%20Leaders%20Declaration_EN.pdf

[104] G20 Information Centre, *G20 Rome Leaders' Declaration* (Oct. 31, 2021), http://www.g20.utoronto.ca/2021/211031-declaration.html

[105] G20 Information Centre, *Declaration of G20 Digital Ministers: Leveraging Digitalisation for a Resilient, Strong, Sustainable and Inclusive Recovery* (Aug. 5, 2021), http://www.g20.utoronto.ca/2021/210805-digital.html

diffusion and impact across the economy and the international comparability of indicators on AI, needs to be improved."

"Privacy and data protection" figured prominently in the 2021 G20 Leaders Statement with multiple references in policies concerning health and COVID, transportation and travel, the digital economy and higher education, data free flows with trust, and digital identity tools. The G20 Leaders also prioritized Gender Equality and Women's Empowerment, a focus area for AI policy. And the G20 Leaders said they would work in 2022 "towards enhancing confidence in the digital environment by improving internet safety and countering online abuse, hate speech, online violence and terrorism while protecting human rights and fundamental freedoms."

Global Privacy Assembly

The Global Privacy Assembly is the global network of privacy officials and experts. The Global Privacy Assembly meets annually to discuss emerging privacy issues and to adopt resolutions. In recent years, the focus of the GPA has moved toward AI.[106]

The GPA adopted a foundational Declaration in 2018 on Ethics and Data Protection in Artificial Intelligence.[107] The 2018 GPA 2018 Resolution on Ethics in AI emphasized fairness, vigilance, transparency and intelligibility, and measures to reduce unlawful bias and discrimination.

In 2020, the Assembly adopted a significant Resolution on Accountability and AI that urged organizations deploying AI systems to implement accountability measures, including a human rights impact assessment.[108] The Privacy Assembly also urged governments to make changes to data protection law "to make clear the legal obligations regarding accountability in the development and use of AI." The 2020 GPA AI Accountability Resolution builds on a recent a recent GPA survey that identified accountability measures that are "very important or important for

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[106] CAIPD Update 1.15, *Privacy Commissioners Adopt Resolutions on AI, Facial Recognition* (Oct. 19, 2020), https://dukakis.org/center-for-ai-and-digital-policy/caipd-update-privacy-commissioners-adopt-resolutions-on-ai-facial-recognition/
[107] International Conference of Data Protection and Privacy Commissioner, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), http://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf. See also complete text in Reference section.
[108] Global Privacy Assembly, *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf. See also complete text in Reference section

either AI developers or AI users." The GPA Resolution reiterated several key principles for data protection, such as fairness and transparency, but stopped short of endorsing a formal ban which had been urged by many human rights advocates at the 2019 conference in Tirana. More than 100 organizations and 1,200 experts recommended that "countries suspend the further deployment of facial recognition technology for mass surveillance" and "establish the legal rules, technical standards, and ethical guidelines necessary to safeguard fundamental rights and comply with legal obligations before further deployment of this technology occurs." The Assembly said it would consider the "circumstances when facial recognition technology poses the greatest risk to data protection and privacy rights," and develop a set of principles that could be adopted at the next conference.

In October 2022, at its 44th Closed Session in Ankara, Turkey, the Assembly adopted a Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology. These main tenets are: Lawful basis; Reasonableness, necessity, and proportionality; Protection of human rights; Transparency; Accountability; Data protection principles."[109]

The OECD

The OECD is an international organization that "works to build better policies for better lives."[110] The goal of the OECD is to "shape policies that foster prosperity, equality, opportunity and well-being for all."

The OECD has led the global effort to develop and establish the most widely recognized framework for AI policy. This is a result of a concerted effort by the OECD and the member states to develop a coordinated international strategy. The OECD AI Principles also build on earlier OECD initiatives such as the OECD Privacy Guidelines, a widely recognized framework for transborder data flows and the first global framework for data protection.[111] OECD policy frameworks are not treaties, do not have legal force, and are not directly applicable to OECD member

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[109] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

[110] OECD, *Who we are*, https://www.oecd.org/about/

[111] OECD, *OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data (1981),* https://www.oecd.org/sti/ieconomy/oecdguidelinesontheprotectionofprivacyandtransborderflowsofpersonaldata.htm

states. However, there are many instances of countries adopting national laws based on OECD policies, and a clear convergence of legal norms, particularly in the field of data protection.

Following the publication of the OECD AI Principles in 2019, the OECD continues extensive work on the adoption and implementation of AI policies.[112]

Global Partnership on AI

The Global Partnership on Artificial Intelligence (GPAI) emerged from the OECD Recommendation on Artificial Intelligence.[113] GPAI activities are intended to foster the responsible development of AI grounded in "human rights, inclusion, diversity, innovation, and economic growth."[114] The GPAI aims to "bridge the gap between theory and practice on AI by supporting cutting-edge research and applied activities on AI-related priorities." The GPA developed within the G7 under the Canadian and French presidencies. As of January 2022, GPAI's members now include Australia, Belgium, Brazil, Canada, Czech Republic, Denmark, France, Germany, India, Ireland, Israel, Italy, Japan, Mexico, the Netherlands, New Zealand, Poland, the Republic of Korea, Singapore, Slovenia, Spain, Sweden, the United Kingdom, the United States, and the European Union.

The GPAI held the Montreal Summit in early 2020.[115] The five key themes at the first GPAI meeting were the Responsible Use of AI, Data Governance, The Future of Work, AI and the Pandemic Response, Innovation, and Commercialization. The organizers of the Montreal Summit included an AI Art Session to learn how AI will "advance art artistry."

In November 2022, the Ministers of the Global Partnership on Artificial Intelligence Members, convened in Tokyo and adopted a Declaration in which they "Reaffirm our commitment to the OECD AI Principles, which are based on human-centred values, protecting dignity and well-being and promoting trustworthy, responsible and sustainable use of artificial intelligence; Affirm our commitment to protecting and promoting human-centred values and democracy that underpin an inclusive, development-oriented, sustainable and peaceful society; Oppose unlawful

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[112] CAIP Update 1.13, *OECD Report Examines Implementation of AI Principles* (Oct. 5, 2020), https://dukakis.org/center-for-ai-and-digital-policy/caidp-update-oecd-report-examines-implementation-of-ai-principles/

[113] GPAI, *The Global Partnership on Artificial Intelligence*, https://gpai.ai

[114] GPAI, *About GPAI*, https://gpai.ai/about/

[115] GPAI, *Montreal Summit 2020,* https://www.c2montreal.com/en/lp/global-partnership-on-artificial-intelligence/

and irresponsible use of artificial intelligence and other technologies, which is not in line with our shared values."[116]

OECD AI Observatory

The OECD AI Observatory, launched in February 2020, provides extensive data and multi-disciplinary analysis on artificial intelligence across a wide range of policy areas.[117] According to the OECD, the AI Policy Observatory is based on multidisciplinary, evidence-based analysis, and Global multi-stakeholder partnerships.

National Implementation

The OECD has also published the first report that attempts to assess the implementation of the OECD AI Principles among the G-20 nations.[118] Examples of AI National Policies surveys "rationales and illustrative actions" for the 10 principles that make up the OECD/G-20 Guidelines on AI policy. The report was prepared by the G20 Digital Economy Task Force. Key observations from the Task Force report:

- G20 countries are moving quickly to build trustworthy AI ecosystems, though most initiatives are very recent
- Many national AI strategies address multiple G20 AI Principles simultaneously, which the OECD contends reinforce the strong complementarity of the Principles
- So far, few national policies emphasize Principles of robustness, security and safety, and accountability,
- Many national policies emphasize R&D, fostering a digital ecosystem, human capacity, and international cooperation

The Task Force also found that "there is potential for steering public research towards socially oriented applications and issues, and for leveraging R&D activities to make progress on issues such as accountability, explainability, fairness and transparency." The Task Force emphasized that there "is currently a critical window for G20 members to continue their leadership on AI policy issues and to promote implementation of the G20 AI Principles. Development, diffusion and use of AI technologies are still at a relatively early level of maturity across many

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[116] *GPA 2022 Ministers' Declaration* (Nov. 2022), https://www.gpai.ai/events/tokyo-2022/ministerial-declaration/
[117] OECD, *AI Policy Observatory*, https://www.oecd.ai/
[118] CAIP Update 1.13, *OECD Report Examines Implementation of AI Principles* (Oct. 5, 2020), https://dukakis.org/center-for-ai-and-digital-policy/caidp-update-oecd-report-examines-implementation-of-ai-principles/

countries and firms, and policy-making on AI is in an active experimental phase."[119]

A second report on implementation was published in 2021.[120] The report builds both on the expert input provided at meetings of the OECD.AI Network of Experts working group on national AI policies that took place online from February 2020 to April 2021 and on the EC-OECD database of national AI strategies and policies. The expert group leveraged the OECD AI Policy Observatory www.oecd.ai (OECD.AI), containing a database of national AI policies from OECD countries and partner economies and the EU. These resources help policy makers keep track of national initiatives to implement the recommendations to governments contained in the OECD AI Principles. National policy makers are the primary audience for this report. The expert group met monthly between June 2020 and March 2021 to discuss case studies from selected countries during 90-minute online meetings. Over this period, 24 case studies were discussed during ten virtual meetings. These discussions provided "deep dives" into national experiences in implementing AI policies and were rich in lessons learned and good practices identified for each phase of the AI policy cycle.

OECD Secretary General Angel Gurria remarks at the 2020 G-20 Digital Economy Ministers Meeting in Riyadh also provide insight into the work of the OECD on AI.[121] Secretary Gurria, addressing the global challenges of the COVID-19 crisis, urged countries to "use digital technologies to build our economies back in a better way: more resilient, inclusive and sustainable." He also spoke about the need to bridge the digital divide, to shift to smart mobility practices, and to continue work on measurement of the digital economy.

As the 2020 G20 AI Dialogue showed," Secretary Gurria said, "AI's full potential is still to come. To achieve this potential, we must advance a human-centred and trustworthy AI, that respects the rule of law, human rights, democratic values and diversity, and that includes appropriate safeguards to ensure a fair and just society. This AI is consistent with the G20 AI Principles you designed and endorsed last year, drawing from the OECD's AI Principles."

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[119] OECD G20 Digital Economy Task Force, Examples of AI National Policies (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf

[120] OECD, *State of Implementation of the OECD AI Principles: Insights from National AI Polices* (June 2021), https://oecd.ai/en/policies

[121] CAIP Update 1.2, *OECD's Gurria Underscores AI Fairness at G-20* (July 26, 2020), https://dukakis.org/center-for-ai-and-digital-policy/center-for-ai-policy-update-oecds-gurria-underscores-ai-fairness-at-g-20-meeting/

The OECD ONE PAI

The OECD has also established a Working Group on Policies for AI (ONE PAI).[122] The Working Group is developing practical guidance for policymakers on a wide array of topics: investing in AI R&D; data, infrastructure, software & knowledge; regulation, testbeds and documentation; skills and labor markets; and international co-operation.

The ONE PAI leverages lessons learned by other OECD bodies, as well as analysis of national AI policies. The working group is focusing on the practical implementation of the OECD AI Principles throughout the AI policy cycle for:

- Policy design – focusing on national AI governance policies and approaches;
- Policy implementation – focusing on lessons learned to date through national implementation examples;
- Policy intelligence – identifying different evaluation methods and monitoring exercises; and
- Approaches for international and multi-stakeholder co-operation on AI policy.

The OECD ONE PAI held five virtual meetings between June and September 2020 which provided "deep dives" into national experience in implementing AI policies in practice.

United Nations

The United Nations launched work on AI in 2015 with the General Assembly event Rising to the Challenges of International Security and the Emergence of Artificial Intelligence.[123] In 2015, the UN Interregional Crime and Justice Research Institute (UNICRI) launched a program on AI and Robotics.

The Secretary General

In its 2020 Roadmap for Digital Cooperation, the UN Secretary General stated that "Digital technologies provide new means to advocate, defend and exercise human rights, but they can also be used to suppress, limit and violate human rights," noting with emphasis lethal autonomous

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[122] OECD, OECD Network of Experts on AI (ONE AI), https://oecd.ai/network-of-experts

[123] UNICRI, *Rising to the Challenges of International Security and the Emergence of Artificial Intelligence* (Oct. 7, 2015), http://www.unicri.it/news/article/cbrn_artificial_intelligence

weapons and facial recognition.[124] He also announced the creation of an advisory body on global artificial intelligence cooperation to provide guidance to the Secretary General and the international community on artificial intelligence that is trustworthy, human-rights based, safe and sustainable and promotes peace. The advisory body will comprise Member States, relevant United Nations entities, interested companies, academic institutions, and civil society groups.

The Roadmap echoes the UN Secretary General 2018 Strategy on New Technologies whose goal was to "define how the United Nations system will support the use of these technologies to accelerate the achievement of the 2030 Sustainable Development Agenda and to facilitate their alignment with the values enshrined in the UN Charter, the Universal Declaration of Human Rights and the norms and standards of International Laws" with the first principle: "Protect and Promote Global Values" and the second principle: "Foster inclusion and transparency."[125]

In a 2021 report Our Common Agenda, the UN Secretary General also proposed the creation of a Digital Global Compact which could "promote regulation of artificial intelligence to ensure that this is aligned with shared global values." The Compact would be agreed on during a Summit of the Future, prepared in part by "a multi-stakeholder digital technology track."[126]

On January 26, 2022, Maria-Francesca Spatolisano was designated as the Acting UN Envoy on Technology. She is in charge of coordinating the implementation of the Secretary-General's Roadmap on Digital Cooperation and advancing work towards the Global Digital Compact proposed in the Common Agenda, in close consultation with Member States, the technology industry, private companies, civil society, and other stakeholders.[127]

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[124] UN Secretary General, *Report - Roadmap for Digital Cooperation* (June 2020, https://www.un.org/en/content/digital-cooperation-roadmap/assets/pdf/Roadmap_for_Digital_Cooperation_EN.pdf); see also UN Secretary General, *The Highest Aspiration - A Call to Action for Human Rights* (2020) https://www.un.org/sg/sites/www.un.org.sg/files/atoms/files/The_Highest_Asperation_A_Call_To_Action_For_Human_Right_English.pdf)

[125] UN Secretary General, *Strategy on New Technologies* (Sept. 2018, https://www.un.org/en/newtechnologies/images/pdf/SGs-Strategy-on-New-Technologies.pdf)

[126] UN Secretary General, Report: *Our Common Agenda* (2021), https://www.un.org/en/content/common-agenda-report/assets/pdf/Common_Agenda_Report_English.pdf).

[127] https://www.un.org/techenvoy/content/about

In December 2021, Secretary-General Antonio Guterres encouraged the Review Conference of the U.N.'s Convention on Certain Conventional Weapons "to agree on an ambitious plan for the future to establish restrictions on the use of certain types of autonomous weapons."[128]   This follows his call for an international legal ban on LAWS which he qualified in a 2019 message to Meeting of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems as "politically unacceptable, morally repugnant."[129]

UNESCO Recommendation on AI Ethics

In 2020 UNESCO embarked on a two-year project to develop a global standard for Artificial Intelligence. UNESCO Director General Audrey Azoulay stated, "Artificial intelligence can be a great opportunity to accelerate the achievement of sustainable development goals. But any technological revolution leads to new imbalances that we must anticipate."[130]

In 2020 UNESCO published a draft Recommendation on the Ethics of Artificial Intelligence. UNESCO stated that the Recommendation "aims for the formulation of ethical values, principles and policy recommendations for the research, design, development, deployment and usage of AI, to make AI systems work for the good of humanity, individuals, societies, and the environment." The UNESCO draft Recommendation sets out about a dozen principles, five Action Goals, and eleven Policy Actions. Notable among the UNESCO recommendations is the emphasis on Human Dignity, Inclusion, and Diversity. UNESCO also expresses support for Human Oversight, Privacy, Fairness, Transparency and Explainability, Safety and Security, among other goals. Understandably, UNESCO is interested in the scientific, educational, and cultural dimensions of AI, the agency's program focus.

The UNESCO Recommendation was adopted on November 24, 2021, at the 41st General Conference at its 41st session. This is the first

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[128] United Nation, *Secretary-General's message to the Sixth Review Conference of High Contracting Parties to the Convention on Certain Conventional Weapons* (Dec. 13, 2021) https://www.un.org/sg/en/node/261134

[129] United Nations, *Secretary-General's message to Meeting of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems* (March 25, 2019) https://www.un.org/sg/en/content/sg/statement/2019-03-25/secretary-generals-message-meeting-of-the-group-of-governmental-experts-emerging-technologies-the-area-of-lethal-autonomous-weapons-systems

[130] UNESCO, *Artificial intelligence with human values for sustainable development,* https://en.unesco.org/artificial-intelligence

global agreement on the Ethics of Artificial Intelligence.[131] UNESCO Director General Audrey Azoulay stated, "The world needs rules for artificial intelligence to benefit humanity. The recommendation on the ethics of AI is a major answer. It sets the first global normative framework while giving member states the responsibility to apply it at their level. UNESCO will support its 193 member states in its implementation and ask them to report regularly on their progress and practices."

The UNESCO Recommendation was the outcome of a multi-year process and was drafted with the assistance of more than 24 experts.[132] According to UNESCO, the "historical text defines the common values and principles which will guide the construction of the necessary legal infrastructure to ensure the healthy development of AI."[133] UNESCO explained, "The Recommendation aims to realize the advantages AI brings to society and reduce the risks it entails. It ensures that digital transformations promote human rights and contribute to the achievement of the Sustainable Development Goals, addressing issues around transparency, accountability and privacy, with action-oriented policy chapters on data governance, education, culture, labour, healthcare and the economy." The key achievements of the UNESCO AI Recommendation include:

1. **Protecting data.** The UNESCO Recommendation calls for action beyond what tech firms and governments are doing to guarantee individuals more protection by ensuring transparency, agency and control over their personal data.
2. **Banning social scoring and mass surveillance**. The UNESCO Recommendation explicitly bans the use of AI systems for social scoring and mass surveillance.
3. **Monitoring and Evaluation.** The UNESCO Recommendation establishes new tools that will assist in implementation, including Ethical Impact Assessments and a Readiness Assessment Methodology.
4. **Protecting the environment.** The UNESCO Recommendation emphasizes that AI actors should favor data, energy and resource-efficient AI methods that will help ensure that AI becomes a more

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[131] UNESCO, *Recommendation on the Ethics of Artificial Intelligence* (2021), https://unesdoc.unesco.org/ark:/48223/pf0000380455

[132] UNESCO, *Preparation of a draft text of the Recommendation: Ad Hoc Expert Group,* https://en.unesco.org/artificial-intelligence/ethics#aheg

[133] UNESCO, *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (Nov. 25, 2021), https://en.unesco.org/news/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence

prominent tool in the fight against climate change and on tackling environmental issues.

The Recommendation aims to provide a basis to make AI systems work for the good of humanity, individuals, societies and the environment and ecosystems, and to prevent harm. It also aims at stimulating the peaceful use of AI systems. The Recommendation provides a universal framework of values and principles of the ethics of AI. It sets out four values: respect, protection and promotion of human rights and fundamental freedoms and human dignity; environment and ecosystem flourishing; ensuring diversity and inclusiveness; living in peaceful, just and interconnected societies.

Further, the Recommendation outlines 10 principles – proportionality and do no harm, safety and security, fairness and non-discrimination, sustainability, right to privacy and data protection, human oversight and determination, transparency and explainability, responsibility and accountability, awareness and literacy – backed up by more concrete policy actions on how they can be achieved. The Recommendation also introduces red-lines to unacceptable AI practices. For example, it states that "AI systems should not be used for social scoring or mass surveillance purposes."

The Recommendation focuses not only on values and principles, but also on their practical realization, via concrete eleven policy actions. It encourages Member States to introduce frameworks for ethical impact assessments, oversight mechanisms etc. Member States should ensure that harms caused through AI systems are investigated and redressed, by enacting strong enforcement mechanisms and remedial actions, to make certain that human rights and fundamental freedoms and the rule of law are respected.

UN High Commissioner for Human Rights

In the Roadmap for Digital Cooperation, the Secretary General stated, "To address the challenges and opportunities of protecting and advancing human rights, human dignity and human agency in a digitally interdependent age, the Office of the United Nations High Commissioner for Human Rights will develop system-wide guidance on human rights due diligence and impact assessments in the use of new technologies, including through engagement with civil society, external experts and those most vulnerable and affected."[134]

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[134] UN Secretary General, *Report - Roadmap for Digital Cooperation* (June 2020) https://www.un.org/en/content/digital-cooperation-roadmap/assets/pdf/Roadmap_for_Digital_Cooperation_EN.pdf)

In September 2021, the UN High Commissioner for Human Rights Michelle Bachelet called for a moratorium on the sale and use of AI that pose a serious risk to human rights until adequate safeguards are put in place.[135] She also called for a ban on AI applications that do not comply with international human rights law. "Artificial intelligence can be a force for good, helping societies overcome some of the great challenges of our times. But AI technologies can have negative, even catastrophic, effects if they are used without sufficient regard to how they affect people's human rights," Bachelet said.

The High Commissioner's statement accompanied the release of a new report on The Right to Privacy in the Digital Age.[2] The UN Report details how AI systems rely on large data sets, with information about individuals collected, shared, merged and analysed in multiple and often opaque ways. The UN Report finds that data used to guide AI systems can be faulty, discriminatory, out of date or irrelevant. Long-term storage of data also poses particular risks, as data could in the future be exploited in as yet unknown ways.[136]

International Telecommunications Union

In 2017 and 2018, the International Telecommunications Union (ITU) organized the AI for Good Global Summits, "the leading United Nations platform for dialogue on AI."[137] Houlin Zhao, Secretary General of the ITU stated, "As the UN specialized agency for information and communication technologies, ITU is well placed to guide AI innovation towards the achievement of the UN Sustainable Development Goals. We are providing a neutral platform for international dialogue aimed at building a common understanding of the capabilities of emerging AI technologies." The 2018 ITU report *Artificial Intelligence for global good* focused on the

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[135] UN Human Rights, Office of the High Commissioner, *Artificial intelligence risks to privacy demand urgent action – Bachelet* (Sept. 15, 2021), https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=27469&LangID=E; see also *UN Urges Moratorium on AI that Violates Human Rights,* CAIDP Update 2.34 (Sept. 15, 2021), https://www.caidp.org/app/download/8343909663/CAIDP-Update-2.34.pdf

[136] Human Rights Council, *The right to privacy in the digital age, Report of the United Nations High Commissioner for Human Rights* (Sept. 13, 2021), https://www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session48/Documents/A_HRC_48_31_AdvanceEditedVersion.docx

[137] ITU, AI for Good Global Summit 2018, https://www.itu.int/en/ITU-T/AI/2018/Pages/default.aspx

relationship between AI and progress towards the United Nations' Sustainable Development Goals (SDGs).[138]

UN Special Rapporteur

An extensive 2018 report by a UN Special Rapporteur explored the implications of artificial intelligence technologies for human rights in the information environment, focusing in particular on rights to freedom of opinion and expression, privacy and non-discrimination.[139] The *Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression* report defines key terms "essential to a human rights discussion about artificial intelligence"; identifies the human rights legal framework relevant to artificial intelligence; and presents preliminary to ensure that human rights are considered as AI systems evolve. The report emphasizes free expression concerns and notes several frameworks, including the International Covenant on Civil and Political Rights and the UN Guiding Principles on Business and Human Rights.

Among the Recommendations, the Special Rapporteur proposed "Companies should make all artificial intelligence code fully auditable and should pursue innovative means for enabling external and independent auditing of artificial intelligence systems, separately from regulatory requirements. The results of artificial intelligence audits should themselves be made public." The report emphasizes the need for transparency in the administration of public services. "When an artificial intelligence application is being used by a public sector agency, refusal on the part of the vendor to be transparent about the operation of the system would be incompatible with the public body's own accountability obligations," the report advises.

UN and Lethal Autonomous Weapons

One of the first AI applications to focus the attention of global policymakers was the use of AI for warfare.[140] In 2016, the United Nations established the Group of Governmental Experts (GGE) on Lethal Autonomous Weapons Systems (LAWS) following a review of the High

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[138] ITU News Magazine, Artificial Intelligence for global good (Jan. 2018), https://www.itu.int/en/itunews/Documents/2018/2018-01/2018_ITUNews01-en.pdf

[139] UN Special Rapporteur, *Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression,* A/73/348 (Aug. 29, 2018), https://freedex.org/wp-content/blogs.dir/2015/files/2018/10/AI-and-FOE-GA.pdf

[140] The Computer Professionals for Social Responsibility (CPSR), a network of computer scientists based in Palo Alto, California, undertook early work on this topic in the 1980s. CPSR History, http://cpsr.org/about/history/. See also David Bellin and Gary Chapman, *Computers in Battle Will They Work?* (1987).

Contracting Parties to the Convention on Certain Conventional Weapons (CCW).[141] In November 2019,[142] the CCW High Contracting Parties endorsed 11 Guiding Principles for LAWS.[143] But concerns about future of regulation of lethal autonomous weapons remain. At present, some countries believe that current international law "mostly suffices" while others believe new laws are needed.[144] Human Rights Watch provided an important overview of country positions on the future of banning fully autonomous weapons in August 2020.[145] Concerns over killer reports also arose at the 75th UN Assembly in October 2020.[146] Pope Francis warned that lethal autonomous weapons systems would "irreversibly alter the nature of warfare, detaching it further from human agency." He called on states to "break with the present climate of distrust" that is leading to "an erosion of multilateralism, which is all the more serious in light of the development of new forms of military technology."[147] The Permanent Representative of the Holy See to the UN called for a ban on autonomous weapons in 2014.[148]

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[141] United Nations, *2018 Group of Governmental Experts on Lethal Autonomous Weapons Systems (LAWS),* https://www.unog.ch/80256EE600585943/(httpPages)/7C335E71DFCB29D1C12582430 03E8724

[142] Meeting of the High Contracting Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, *Final Report* (Dec. 13, 2019), https://undocs.org/Home/Mobile?FinalSymbol=CCW%2FMSP%2F2019%2F9&Languag e=E&DeviceType=Desktop

[143] Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons System, *Report of the 2019 session of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems (Sept. 25, 2019)*, https://documents-dds-ny.un.org/doc/UNDOC/GEN/G19/285/69/PDF/G1928569.pdf?OpenElement

[144] Dustin Lewis, *An Enduring Impasse on Autonomous Weapons*, Just Security (Sept. 28, 2020), https://www.justsecurity.org/72610/an-enduring-impasse-on-autonomous-weapons/

[145] Human Rights Watch, *Stopping Killer Robots: Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control* (Aug. 10, 2020), https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and#

[146] Stop Killer Robots, *75th UN Assembly* (Oct. 30, 2020), https://www.stopkillerrobots.org/2020/10/un-diplomacy/

[147] Address of His Holiness Pope Francis to the Seventy-fifth Meeting of the General Assembly of the United Nations, *The Future We Want, the United Nations We Need: Reaffirming our Joint Commitment through Multilateralism* (Sept. 25, 2020), https://reachingcriticalwill.org/images/documents/Disarmament-fora/unga/2020/25Sept_HolySee.pdf

[148] Statement by H.E. Archbishop Silvano M. Tomasi, Permanent Representative of the Holy See to the United Nations and Other International Organizations in Geneva at the

At the 2022 United Nations General Assembly, 70 countries endorsed a joint statement on autonomous weapons systems. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[149]

The Vatican

Pope Francis has emerged as a leading figure the world of AI policy. In addition to his statements on autonomous weapons, in November 2020 the Pope warned that AI could exacerbate economic inequalities around the world if a common good is not pursued. "Artificial intelligence is at the heart of the epochal change we are experiencing. Robotics can make a better world possible if it is joined to the common good. Indeed, if technological progress increases inequalities, it is not true progress. Future advances should be oriented towards respecting the dignity of the person and of Creation."[150]

Earlier in 2020, the Pope endorsed the Rome Call for AI Ethics.[151] The goal of the Rome Call is to "support an ethical approach to Artificial Intelligence and promote a sense of responsibility among organizations, governments and institutions." The Pope said, "The Call's intention is to create a movement that will widen and involve other players: public institutions, NGOs, industries and groups to set a course for developing and using technologies derived from AI." The Pope also said that the Rome Call

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meeting of Experts on Lethal Autonomous weapons systems of the High Contracting Parties to the Convention, *On Prohibitions or Restrictions on the Use of Certain Conventional Weapons which may be Deemed to be Excessively Injurious or to have Indiscriminate Effect* (May 13, 2014),
https://www.unog.ch/80256EDD006B8954/(httpAssets)/D51A968CB2A8D115C1257C D8002552F5/$file/Holy+See+MX+LAWS.pdf
[149] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022),
https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw 9WYcSnnAm_en.pdf
[150] Vatican News, *Pope's November prayer intention: that progress in robotics and AI "be human"* (Nov. 2020), https://www.vaticannews.va/en/pope/news/2020-11/pope-francis-november-prayer-intention-robotics-ai-human.html
[151] *Rome Call AI Ethics*, https://romecall.org

for Ethics is the "first attempt to formulate a set of ethical criteria with common reference points and values, offering a contribution to the development of a common language to interpret what is human."[152]

The key principles of the Rome Call are 1) Transparency: AI systems must be explainable; 2) Inclusion: the needs of all human beings must be taken into consideration so that everyone can benefit and all individuals can be offered the best possible conditions to express themselves and develop; 3) Responsibility: those who design and deploy the use of AI must proceed with responsibility and transparency; 4) Impartiality: do not create or act according to bias, thus safeguarding fairness and human dignity; 5) Reliability: AI systems must be able to work reliably; 6) Security and privacy: AI systems must work securely and respect the privacy of users. These principles are described as "fundamental elements of good innovation."

In April 2021, the RenAIssance foundation was set up to guard and promote the Rome Call for AI Ethics.[153]

In January 2023, representatives of the Chief Rabbinate of Israel's Commission for Interreligious Relations, the Pontifical Academy for Life and Abu Dhabi Forum for Peace, commended a joint declaration on "AI Ethics: An Abrahamic Commitment to the Rome Call".[154] The joint declaration is meant as a companion to the Rome Call.

Archbishop Vincenzo Paglia, President of the Pontifical Academy for Life and the RenAIssance Foundation, welcomed the participants to the event in which the joint declaration was issued with the following words: "We have gathered with our Jewish and Muslim brothers in an event of great importance to call upon the world to think and act in the name of brotherhood and peace – even in the field of technology. The signing of the Rome Call by Jewish and Muslim religious leaders and the joint call for algorethics to guide the design of artificial intelligence refer precisely to the

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[152] Pontifical Academy for Life, *Rome Call for Ethics* (Feb. 28, 2020), http://www.academyforlife.va/content/pav/en/events/intelligenza-artificiale.html

[153] RenAIssance Foundation, *Second Anniversary of the Rome Call for AI Ethics* (2022), https://www.romecall.org/second-anniversary-of-the-rome-call-for-ai-ethics-signed-in-rome-by-microsoft-ibm-fao-on-february-28-2020/

[154] *AI Ethics: An Abrahamic Commitment to the Rome Call* (Jan. 10, 2023), https://www.romecall.org/wp-content/uploads/2023/01/AI-Joint-Declaration-5-Jan1-1.pdf

increasingly urgent need to build paths of peace, mutual respect, dialogue and community."[155]

Technical Societies

Technical societies have also played a leading role in the articulation of AI principles. The IEEE led several initiatives, often in cooperation with government policymakers, to develop and promote Ethically Aligned Design (EAD).[156] The initial report *A Vision for Prioritizing Human Well-being with Autonomous and Intelligent Systems* was published in 2015. The IEEE published the second edition in 2017.[157] In 2019 the IEEE issued a Positions Statement on Artificial Intelligence, concluding that "AI systems hold great promise to benefit society, but also present serious social, legal and ethical challenges, with corresponding new requirements to address issues of systemic risk, diminishing trust, privacy challenges and issues of data transparency, ownership and agency."[158]

In November 2022, the IEEE Board approved the IEEE Standard for Operator Interfaces of Artificial Intelligence. The standard consists in the definition of a set of operator interfaces frequently used in AI applications, The standard highlights various types of operators, such as those related to basic mathematics, neural network, and machine learning.[159]

ACM, an international society of computer scientists and professionals, has also contributed to the global AI policy landscape.[160] In 2017 ACM released a Statement on Algorithmic Transparency and Accountability, identifying key principles to minimize bias and risks in algorithmic decision-making systems, including transparency, accountability, explainability, auditability, and validation.[161] In 2020, in

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[155] RenAIssance Foundation, *The Abrahamic commitment to the Rome Call for AI ethics* (Jan. 10, 2023), https://www.romecall.org/the-abrahamic-commitment-to-the-rome-call-for-ai-ethics-10th-january-2023/

[156] IEEE Ethics in Action in Autonomous and Intelligent Systems, https://ethicsinaction.ieee.org

[157] IEEE Standards Association, *IEEE Releases Ethically Aligned Design, Version 2 to show "Ethics in Action" for the Development of Autonomous and Intelligent Systems (A/IS)* (Dec. 12, 2017), https://standards.ieee.org/news/2017/ead_v2.html

[158] IEEE, *Artificial Intelligence* (June 24, 2019), https://globalpolicy.ieee.org/wp-content/uploads/2019/06/IEEE18029.pdf

[159] IEEE Standards Association, *IEEE Standard for Artificial Intelligence (AI) Model Representation, Compression, Distribution, and Management* (Mar. 2022), https://standards.ieee.org/ieee/2941/10363/

[160] Association for Computing Machinery, www.acm.org/public-policy

[161] ACM, US Public Policy Council, *Statement on Algorithmic Transparency and Accountability,* (Jan. 12, 2017),

response to growing concerns about the use of facial recognition technologies in public spaces, ACM released another statement addressing the unique issues of biometric data systems and the potential bias and inaccuracies that have significant consequences for violation of human rights.[162]

Civil Society

Latin America

      In Latin America, NGOs have been active in AI-related aspects, particularly in connection with the use of facial recognition technology. In Argentina, the Association for Civil Rights (*Asociación por los Derechos Civiles*), a very-well known Argentinian human rights organization has criticized the increasing and unaccountable use of facial recognition technology. These efforts have led to the creation of a national campaign using the slogan '"Con mi Cara No" ("No with my face"). The organization aims to raise awareness about the dangers of facial recognition technology, particularly when their data is included within opaque and unaccountable systems.[163] Furthermore, during 2020, the Association made contributions to *Future City: AI Strategy* (*Ciudad Futuro: Plan Estratégico Inteligencia Artificial*) of the Autonomous City of Buenos Aires.[164] It also participates in the Trustworthy Artificial Intelligence (TAI) program organized by Mozfest, and the working group "Making use of the Civic Voice in AI Impact Assessment" with more than thirty members of different civil society organizations around the world.

      The Igarape Institute, an independent Brazilian think tank, also publishes AI-related research: in 2019, the Institute published a study on Future Crime providing an overview of the opportunities and pitfalls of new technologies to fight crime and stated recommendations to ensure transparency and accountability.[165] The emphasis was on predictive

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https://www.acm.org/binaries/content/assets/publicpolicy/2017_usacm_statement_algorithms.pdf.

[162] ACM, US Technology Policy Committee, *Statement on Principles and Prerequisites for the Development, Evaluation and Use of Unbiased Facial Recognition Technologies* (June 30, 3030), https://www.acm.org/binaries/content/assets/public-policy/ustpc-facial-recognition-tech-statement.pdf

[163] Asociación por los Derechos Civiles, https://conmicarano.adc.org.ar/

[164] Asociación por los Derechos Civiles, *Yearbook 20021* https://adc.org.ar/wp-content/uploads/2022/01/ADC-Yearbook-2021.pdf

[165] Igarape Institute, *Future Crime - Assessing twenty first century crime prediction* (Feb. 3, 2019),
https://igarape.org.br/en/future-crime-assessing-twenty-first-century-crime-prediction/

analytics and the Institute recommended that enforcement agencies are informed about the challenges and caveats associate applying these new crime prediction platforms. The principles of transparency and accountability were also highlighted, as well as the need to ensure the safety, dignity and rights of people in the crime forecasting process, including when advanced software packages are deployed. Predictive tools need not replace the intuition and experience of law enforcement officers, but rather complement them in an agile and auditable manner.

Furthermore, in relation to the São Paulo Metro operator, ViaQuatro, that installed and used an AI crowd analytics system that claims to predict the emotion, age, and gender of metro passengers without processing personal data, Access Now filed an expert opinion criticizing this initiative.[166]

Fundoción Karisma, another civil society organization dedicated to supporting the responsible use of tech highlights the pitfalls of these systems. In their report titled Discreet Cameras, they point out that surveillance technology and biometric identification systems in Colombia only take into consideration the technical and impact considerations while assessing systems. There is no analysis using necessity, proportionality or the possible effect of the technology on human rights. Although the government tries to ensure transparency by sharing the location of video surveillance systems that use facial recognition technology, the right to privacy and other fundamental rights of individuals are still ignored.[167]

In addition, when Uruguay began developing a facial identification database some civil society organizations warned that "this system was approved using the National Budget Act as an 'omnibus law,' thus preventing proper discussion about the issue due to the tight deadlines for approval of this type of law.[168]

More broadly, several civil society organizations under the banner "Al Sur" in Latin America that seeks to strengthen human rights in the digital environment responded to the public consultation on "Ethics and Data Protection in Artificial Intelligence: continuing the debate" promoted

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[166] Brazilian Institute of Consumer Protection, Autos no.: 1090663-42.2018.8.26.0100, https://www.accessnow.org/cms/assets/uploads/2020/06/Expert_Opinion_Brazil_Facial_Categorization.pdf

[167] Fundación Karisma, *Discreet Cameras*, (Feb. 2, 2018), https://web.karisma.org.co/camaras-indiscretas/

[168] DATYSOC, *Organizaciones de la sociedad civil y académicas expresan su preocupación por reconocimiento facial en el Proyecto de Ley de Presupuesto de Uruguay* (Nov. 17, 2020), https://datysoc.org/2020/11/17/organizaciones-de-la-sociedad-civil-y-academicas-expresan-su-preocupacion-por-reconocimiento-facial-en-el-proyecto-de-ley-de-presupuesto-de-uruguay/

by the International Conference of Data Protection and Privacy
Commissioners (ICDPPC).[169]

Africa

In relation to Africa, research shows more limited engagement with
AI-related questions. In relation to Nigeria, Paradigm Initiative, which
operates regional offices in Cameroon, Kenya, Nigeria, Senegal, Zambia,
and Zimbabwe, has observed that Nigeria conducts surveillance activities
without judicial oversight and a comprehensive framework for data
protection and recommended the enactment of a comprehensive framework
for data protection and privacy and judicial oversight over surveillance.[170]
With regard to AI, Paradigm Initiative has published policy briefs and
factsheets, providing a series of recommendations, namely: assessment of
Nigeria's strategic priorities, strengths and weaknesses, alignment with
supranational AI standards, concerns regarding the use of AI in certain
sectors, such as law enforcement, criminal justice, immigration and national
security; a human-centric approach to data governance; reinforcing the
responsibility of the Nigerian State to protect citizens human rights, and the
responsibility of businesses to respect these rights; prioritizing local AI and
ensuring a transparent procurement process for AI systems from abroad:
and calling for AI upskilling and reskilling.[171]

Paradigm Initiative has also published a policy brief on the AI policy
of Kenya highlighting the challenges faced in the adoption of AI systems,
which include the lack of relevant data for the development of the systems,
lack of regulatory framework governing the AI ecosystem in the country,
lack of relevant AI skills, connectivity divide in the country, and the lack of
investment in research on development of AI systems and protection of
human rights.[172] Paradigm Initiative also stressed the risks posed by the use
of AI systems on human rights, focusing not only on bias caused by the

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[169] *Ethics and Data Protection in Artificial Intelligence: continuing the debate. A
contribution from Latin America & the Caribbean*, https://web.karisma.org.co/ethics-and-
data-protection-in-artificial-intelligence-continuing-the-debate-a-contribution-from-latin-
america-the-caribbean/
[170] https://paradigmhq.org/wp-content/uploads/2021/05/Digital-Rights-and-Privacy-in-
Nigeria_0.pdf
[171] Paradigm Initiative, *Towards A Rights-Respecting Artificial Intelligence Policy for
Nigeria*,
(November 2021), https://paradigmhq.org/wp-content/uploads/2021/11/Towards-A-
Rights-Respecting-Artificial-Intelligence-Policy-for-Nigeria.pdf
[172] Paradigm Initiative, *Artificial Intelligence in Kenya*, (January 2022),
https://paradigmhq.org/wp-content/uploads/2022/02/Artificial-Inteligence-in-Kenya-
1.pdf

systems, but also the weaponization of AI systems by the Government which may undermine freedom of expression and association, surveillance through the use of facial recognition technologies, and violation of rights through contents moderation.

In 2019, Witness and the Centre for Human Rights at the University of Pretoria, hosted an expert meeting on deepfakes and other forms of AI-enabled synthetic media.[173] The Centre for Human Rights also launched the #Tech4Rights initiative to, among several purposes, build stronger regional partnerships for advocacy on the effective use of digital technologies for human rights protection.[174]

The African Internet Rights Alliance (AIRA) is made up of nine civil society organizations based in countries across Central, East, Southern and West Africa.[175] The work of AIRA is rooted in four values: accountability, transparency, integrity, and good governance. Using these values as a guide, AIRA undertakes collective interventions and executes strategic campaigns that engage the government, private sector, media and civil society to institute and safeguard digital rights. In February 2022, the Alliance hosted a seminar on "Artificial Intelligence in Africa: Opportunities, Challenges, and Ethical Imperatives."

Furthermore, the Digital Transformation Center, a German-Rwandan innovation hub, among other tasks, organises events about current ICT topics and trends, organizes training and capacity-development, as well as networking opportunities.[176]

Moreover, the Rwandan government has engaged Future Society, an independent think tank, to support the development of Rwanda's national artificial intelligence strategy, along with AI ethical guidelines, and a practical implementation strategy fit for the local context.[177] In 2021, the Future Society also organised workshops for employees working specific banks with branches in Africa regarding the concept of responsible AI, existing corporate guidelines, the ethical challenges raised by the use of

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[173] *Centre for Human Rights and Witness Host Africa's first 'deepfakes' workshop in Pretoria* (Nov. 28, 2019), https://www.chr.up.ac.za/news-archive/2019/1929-witness-and-centre-for-human-rights-host-africa-s-first-deepfakes-workshop-in-pretoria
[174] Centre for Human Rights*, #Tech4Rights: Rethinking a human rights-based approach to new technologies in Africa* (Oct. 26, 2021), https://www.chr.up.ac.za/tech4rights
[175] Africa Internet Rights Alliance, *About Us*, https://aira.africa/about-us/
[176] For example see Luisa Olaya Hernandez, How Rwanda's AI policy helps to shape the evolving AI ecosystem, (Oct. 11, 2021), https://digicenter.rw/how-rwandas-ai-policy-helps-to-shape-the-evolving-ai-ecosystem/
[177] The Future Society, The Development of Rwanda's National Artificial Intelligence Policy, (Aug. 31, 2020) https://thefuturesociety.org/2020/08/31/development-of-rwandas-national-artificial-intelligence-policy/

algorithmic prediction for credit lending, and potential impact of facial recognition technologies (FRT) in the banking sector.[178] The Future Society has also published a briefing about the opportunities and challenges of AI in Healthcare in Africa, based on research conducted in TFS' Responsible AI for Development (RAI4D) program.[179]

Asia

In China, the Beijing Academy of Artificial Intelligence (BAAI) is a non-profit research institute aimed at promoting collaboration among academia and industries, as well as fostering top talents and a focus on long-term research on the fundamentals of AI technology. In 2019, the BAAI released the Beijing AI Principles for the research and development, use, and governance of AI.[180]

In India, the Artificial Intelligence Foundation Trust aims to spread and promote the quality education in the area of Artificial Intelligence and concerned engineering streams.[181] The trust will also explore the applications of artificial intelligence in the life, i.e. agriculture, healthcare sector, business, social media, navigation and travel, banking and finance, security and surveillances, e-commerce and many other unexplored application areas.

In Indonesia, the Institute for Policy Research and Advocacy (ELSAM) is a civil society organisation that works to enhance the democratic political order by empowering civil society. With regard to Indonesia's national strategy on AI, ELSAM's researcher Alia Yofira Karunian said the national strategy should be centered around human needs and uphold principles of fairness, accountability and transparency as pillars in AI implementation.[182] The Big Data and AI Association (ABDI) is also concerned with AI developments; in relation to the national strategy its Chairman Rudi Rusdiah commented that the government should prioritize

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[178] The Future Society, Leveraging Responsible AI in the Banking Sector in Africa, (Oct. 21, 2021), https://thefuturesociety.org/2021/10/21/leveraging-responsible-ai-in-the-banking-sector-in-africa/
[179] The Future Society, Opportunities & Challenges of AI in Healthcare in Africa, (Jul. 21, 2021), https://thefuturesociety.org/2021/07/22/opportunities-challenges-of-ai-in-healthcare-in-africa/
[180] Beijing Principles, https://www.baai.ac.cn/news/beijing-ai-principles-en.html
[181] Artificial Intelligence Foundation Trust https://www.aifoundation.in/index.php
[182] The Jakarta Post, Indonesia sets sights on artificial intelligence in new national strategy (Aug. 14, 2020), https://www.thejakartapost.com/news/2020/08/13/indonesia-sets-sights-on-artificial-intelligence-in-new-national-strategy.html

trade and industrial affairs in AI development to reap the economic benefits.[183]

Furthermore, the Association for Civil Rights in Israel, which is the oldest and most influential civil and human rights organization advocating across the broad spectrum of human rights and civil liberties, has been active in this field. It was one of the groups that brought before the Israel's Supreme Court a case concerning the Israeli Security Agency tracing the phone location of those who may be infected with Covid-19, eventually banned by the Court.[184]

In Russia, the Human Rights Watch and Amnesty International have criticized the expansion of the use of facial recognition and highlighted threats to privacy taking into account Russia's track record of rights violations.[185] Amnesty International has also been critical of Russia's plans to broaden the use of widespread facial-recognition systems, saying their expected deployment during public gatherings will "inevitably have a chilling effect" on protesters.[186]

Europe

Civil Society organizations, particularly in Europe, are also shaping national AI policies and practices. Group such as Access Now have published detailed assessment of AI regulatory proposals[187] and a report on "trustworthy AI."[188] AlgorithmWatch has drawn attention to controversies in the use of AI-based decision-making systems.[189] BEUC, the European

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[183] ibid. See ABID, https://www.abdi.id/

[184] BBC News, *Coronavirus: Israeli court bans lawless contact tracing* (Apr. 27, 2020), https://www.bbc.com/news/technology-52439145

[185] Human Rights Watch, *Russia Expands Facial Recognition Despite Privacy Concerns - Lack of Accountability, Oversight, Data Protection* (Oct. 2, 2020), https://www.hrw.org/news/2020/10/02/russia-expands-facial-recognition-despite-privacy-concerns

[186] Radio Free Europe, *Watchdog Warns About 'Chilling Effect' Of Russia's Use Of Facial-Recognition Technology* (Jan. 31, 2020), https://www.rferl.org/a/watchdog-warns-about-chilling-effect-of-russia-s-use-of-facial-recognition-technology/30410014.html

[187] AccessNow, *Mapping Regulatory Proposals for Artificial Intelligence in Europe* (Nov. 2018), https://www.accessnow.org/cms/assets/uploads/2018/11/mapping_regulatory_proposals_for_AI_in_EU.pdf

[188] AccessNow, *Europe's Approach to Artificial Intelligence: How AI Strategy is Evolving* (Dec. 7, 2020), https://www.accessnow.org/eu-trustworthy-ai-strategy-report/

[189] AlgorithmWatch, Automating Society Report 2020 (Oct. 2020), https://automatingsociety.algorithmwatch.org

consumer organization, has surveyed public attitudes toward AI,[190] and in October 2020 proposed specific AI rights for consumers.[191] Privacy International has examined the impact of AI in several context, including advertising, welfare, and migration.[192]

The European Commission's White Paper on AI provided an opportunity for these groups to express their views on regulatory options. Several European NGOs said that the Commission has moved too slowly to establish a legislative framework and has placed too much emphasis on ethics rather than fundamental rights. Access Now and EDRi said that the Commission's "risk-based approach" fails to safeguard fundamental rights.[193] As they explained, "the burden of proof to demonstrate that an AI system does not violate human rights should be on the entity that develops or deploys the system" and "such proof should be established through a mandatory human rights impact assessment."

BEUC wrote "a strong regulatory framework is necessary" to "facilitate innovation and guarantee that consumers can fully reap the benefits of the digital transformation of our societies but are protected against the risks posed by AI."[194] The German consumer association vzbv has also said that the EC recommendation is too narrow.[195] Risky applications that can cause immense harm to consumers' self-determination would then most likely be out of the scope, such as insurance, e-commerce, and smart personal assistants like Amazon Echo/Alexa. The European Commission's plan also appears to include only machine-learning applications. This would exclude a range of expert systems, such as. the

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[190] BEUC, *Survey: Consumers see potential of artificial intelligence but raise serious concerns* (Sept. 7, 2020), https://www.beuc.eu/publications/survey-consumers-see-potential-artificial-intelligence-raise-serious-concerns/html

[191] BEUC, *AI Rights for Consumers* (2019), https://www.beuc.eu/publications/beuc-x-2019-063_ai_rights_for_consumers.pdf

[192] Privacy International, *Artificial Intelligence* ("AI has the potential to revolutionise societies, however there is a real risk that the use of new tools by states or corporations will have a negative impact on human rights.") https://privacyinternational.org/learn/artificial-intelligence

[193] Access Now and EDRi, *Attention EU regulators: we need more than AI "ethics" to keep us safe* (Oct. 21, 2020), https://edri.org/our-work/attention-eu-regulators-we-need-more-than-ai-ethics-to-keep-us-safe/

[194] BEUC, *BEUC's Response to the European Commission's White Paper on Artificial Intelligence* (June 2020), https://www.beuc.eu/publications/beuc-x-2020-049_response_to_the_ecs_white_paper_on_artificial_intelligence.pdf

[195] Vzbv, *White Paper on Artificial Intelligence: Proposals of the Federation of German Consumer Organisations* (May 11, 2020), https://www.vzbv.de/sites/default/files/downloads/2020/06/18/20_06_11_vzbv_ec_white paper_ai_comment_final.pdf

German credit scoring system "Schufa." According to vzbv, this is not technology neutral as it should be.

In the fall of 2020, more than a dozen NGOs in Europe joined together to ban biometric mass surveillance.[196] The Reclaim Your Face coalition demands "transparency, red lines, and respect for humans," and has specifically objected to the deployment of facial recognition in Belgrade. According to the organizations, "ReclaimYourFace is a European movement that brings people's voices into the discussion around biometric data used to monitor the population. We question why these sensitive data are being used and raise the alarm on the impact on our freedoms in public spaces."[197]

In 2021, the Reclaim YourFace campaign continued to gather support. On January 7, 2021, the European Commission formally recognized the campaign as a European Citizen Initiative.[198] As of February 2022, approximately 68,000 signatures in support had been received.[199] Signatures will continue to be gathered until August 2022.

In response to the release of the Commission proposal, Access Now urged stronger action, and called for redline for applications of AI that are incompatible with fundamental rights.[200] Later in the year, Fanny Hidvégi, Europe Policy Manager at Access Now, stated "Access Now's priority is not to have an EU law on AI, but to have one that is an effective instrument to protect people's rights," said Fanny Hidvégi, Europe Policy Manager at Access Now, stated "We've laid out the steps needed to boost the proposed regulation's human rights standards, and are looking forward to working with the Council and Parliament to guarantee they are achieved."[201]

United States

In the United States, the AI Now Institute at New York University has organized important conferences[202] and issued expert reports[203] on

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[196] Reclaim Your Face, https://reclaimyourface.eu

[197] Reclaim Your Face, *The Movement,* https://reclaimyourface.eu/the-movement/

[198] European Commission, European Citizen Initiative, *Civil society initiative for a ban on biometric mass surveillance practices*, ECI(2021)000001, https://europa.eu/citizens-initiative/initiatives/details/2021/000001_en

[199] Reclaim Your Face, https://reclaimyourface.eu (Accessed Feb. 11, 2022).

[200] AccessNow, *EU takes minimal steps to regulate harmful AI systems, must go further to protect fundamental right* (Apr. 21, 2021), https://www.accessnow.org/eu-minimal-steps-to-regulate-harmful-ai-systems/

[201] AccessNow, *The EU needs an Artificial Intelligence Act that protects fundamental rights* (Nov. 30, 2021), https://www.accessnow.org/eu-artificial-intelligence-act-fundamental-rights/

[202] AI Now Institute, *Bias*, https://ainowinstitute.org/symposia.html

[203] AI Now Institute, *Reports*, https://ainowinstitute.org/reports.html

several AI topics. The AI Now Institute also recently provided a statement to the New York City Council on discrimination in automated employment decision tools.[204] The Electronic Privacy Information Center (EPIC) has pursued several innovative complaints concerning AI with the US Federal Trade Commission,[205] provided comments on AI to federal agencies,[206] expert statements to Congress,[207] and pursued public release of materials concerning the activities of the National Security Commission on AI.[208] EPIC has also pursued open government cases concerning the use of proprietary forensic techniques in the criminal justice system.

Fight for the Future, an independent NGO, organized a national campaign in the US to ban facial recognition.[209] Amazon also came under widespread criticism from many US NGOs in 2018 about the company's facial recognition system Rekognition.[210] In June 2020, Amazon agreed to "pause" the police use of its facial recognition software.[211] IBM and Microsoft also agree to halt the development of facial recognition. According to MIT Technology Review, the decision "mark[s] a major milestone for researchers and civil rights advocates in a long and ongoing fight over face recognition in law enforcement."[212]

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[204] Dr. Sarah Myers West, AI Now Institute, *Ethical Implications of Using Artificial Intelligence and Automated Decision Systems,* New York City Council (Nov. 13, 2020), https://ainowinstitute.org/ai-now-city-council-testimony-fair-shot-act.pdf

[205] EPIC, *In re HireVue*, https://epic.org/privacy/ftc/hirevue/

[206] Fight for the Future, *Ban Facial Recognition*, https://www.banfacialrecognition.com

[207] *EPIC Urges Congress to Regulate AI Techniques, Promotes 'Algorithmic Transparency'* (Dec. 12, 2017), https://epic.org/2017/12/epic-urges-congress-to-regulat.html

[208] https://www.epic.org/foia/epic-v-ai-commission/

[209] Fight for the Future, *Ban Facial Recognition*, https://www.banfacialrecognition.com

[210] *Letter from Nationwide Coalition to Amazon CEO Jeff Bezos Regarding Rekognition* (June 18, 2018), https://www.aclu.org/letter-nationwide-coalition-amazon-ceo-jeff-bezos-regarding-rekognition

[211] Karen Weise and Natasha Singer, *Amazon Pauses Police Use of Its Facial Recognition Software,* New York Times (June 10, 2020), https://www.nytimes.com/2020/06/10/technology/amazon-facial-recognition-backlash.html

[212] Karen Hao, *The two-year fight to stop Amazon from selling face recognition to the police,* MIT Technology Review (June 12, 2020), https://www.technologyreview.com/2020/06/12/1003482/amazon-stopped-selling-police-face-recognition-fight/

The Algorithmic Justice League (AJL) has advised the US Congress on AI policy[213] and facial recognition technology.[214] The AJL has also proposed the creation of a federal agency, similar to the FDA, to regulate facial recognition technology.[215] And the AJL published a landmark report on AI bias - *Gender Shades: Uncovering Gender and skin-Type bias in Commercial AI Products.*[216]

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[213] Joy Buolamwini, *Artificial Intelligence; Societal and Ethical Implications,* United States House Committee on Science, Space and Technology (June 26, 2019), https://science.house.gov/imo/media/doc/Buolamwini%20Testimony.pdf

[214] Joy Buolamwini, *Facial Recognition Technology (Part 1): Its Impact on our Civil Rights and Liberties, United States House Committee on Oversight and Government Reform* (May 22, 2019), https://docs.house.gov/meetings/GO/GO00/20190522/109521/HHRG-116-GO00-Wstate-BuolamwiniJ-20190522.pdf

[215] AJL, Fede*ral Recognition Technologies: A Call for a Federal Office* (May 29, 2020), https://www.ajl.org/federal-office-call

[216] AJL, *Gender Shades: Uncovering Gender and skin-Type bias in Commercial AI Products,* http://gendershades.org

COUNTRY REPORTS

Argentina

National AI Strategy

The Ministry of Science, Technology and Productive Innovation (MINCYT) published the National Strategy for Artificial Intelligence in 2019.[217] The plan includes two priority initiatives Digital Agenda Argentina 2030[218] and the National Strategy for Science, Technology, and Innovation, Argentina Innovates 2030.[219]

With the ultimate goal of positioning Argentina as a regional leader on AI, the ten-year strategy plan seeks to transform the country through AI, leveraging the technology in pursuit of developmental objectives built on the UN's sustainable Development Goals (SDGs). The Strategy aims to minimize the potential risks of AI development and implementation for Argentinean society, by protecting personal data and individual privacy through guidelines for the design of AI systems consistent with ethical and legal principles. The strategy also proposes to analyze the impact in the production scheme, resulting effects on labor forces and prevent automate systems from reproducing or reinforcing discriminatory or exclusionary stereotypes. The Strategy addresses the following areas:

- Talent and education
- Data
- Research & Development and Innovation
- Supercomputing infrastructure
- Actions to facilitate job transitions
- Facilitating public-private co-operation on data use
- Public services and manufacturing (as target sectors for AI development)

The cross-cutting themes in the Strategy are:

- Ethics and regulation
- Communication and awareness building
- International co-operation

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[217] OECD.ai, *AI National Plan,* https://oecd.ai/en/dashboards/countries/Argentina.
[218] Digital Agenda Argentina, https://www.casarosada.gob.ar/informacion/actividad-oficial/9-noticias/44081-el-gobierno-presento-la-nueva-agenda-digital-2030.
[219] *National Artificial Intelligence Plan Argentina (Plan Nacional de Inteligencia Artificial de la República de Argentina)* https://ia-latam.com/wp-content/uploads/2020/09/Plan-Nacional-de-Inteligencia-Artificial.pdf.

As can be seen from the wide range of topics covered, the Strategy requires a whole-of-government effort that brings together different government ministries under the leadership of the Digital Agenda Executive Roundtable (*Mesa Ejecutiva Agenda Digital*). This effort is supported by twenty different government agencies, as well as a Multi-sectoral Committee of Artificial Intelligence and a Scientific Committee of experts.

While the AI Strategy for Argentina sets out ambitious goals that build upon other national strategies, the strategy was developed under the former president, Mauricio Macri, in 2019.[220] Although the former Argentina government set out milestones to meet specific goals,[221] there's no indication the new administration endorsed the AI strategy, and most crucially, its implementation efforts going forward.[222]

In April 2021, under the current administration of President Alberto Fernandez (December 2019 onwards), the Executive Branch published the Productive Development Plan Argentina 4.0 (the Argentina 4.0 Plan). This plan, an initiative of the National Ministry of Productive Development, aims to promote the incorporation of technologies 4.0 – including AI – in the national production chain. The Argentina 4.0 Plan does not refer to the National AI Strategy. In November 2021, the Secretariat for Strategic Affair also adopted Resolution 90/2021[223] entitled Artificial Intelligence Program. This Program complements Decree 970/2020.[224] The aim is to foster the responsible use of technology, such as artificial intelligence, "that contribute to consolidating Argentine technological sovereignty in the 4.0 revolution." [225]

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[220] Jasmine Kendall, *Oxford Insights' AI Strategy Series*: *Argentina and Uruguay* (Jan. 13, 2021), https://www.oxfordinsights.com/insights/2021/1/8/oxford-insights-ai-strategy-series-argentina-and-uruguay.

[221] Presidencia de la Nacion, *Plan Nacional de Inteligencia Artificial* (Aug. 2018), https://uai.edu.ar/ciiti/2019/buenos-aires/downloads/B1/JA-Plan-Nacional-IA.pdf.

[222] TMG Telecom, *Repaso de las Políticas y Desarrollos Latinoamericanos sobre Inteligencia Artificial* 21 (Feb. 2020); OECD, *State of Implementation of the OECD AI Principles* 16 (June 2021*);* OECD G20 Digital Economy Task Force, *Examples of AI National Policies* 9 (2020).

[223] *Resolution 90/2021* , https://www.argentina.gob.ar/normativa/nacional/resoluci%C3%B3n-90-2021-357421.

[224] *Decree 970, 2020*, https://www.argentina.gob.ar/normativa/nacional/resoluci%C3%B3n-90-2021-357421/normas-modificadas.

[225] *Decree 970, 2020*, https://www.argentina.gob.ar/normativa/nacional/resoluci%C3%B3n-90-2021-357421/normas-modificadas.

Local Strategies

The Autonomous City of Buenos Aires launched Future City: AI Strategy (*Ciudad Futuro: Plan Estratégico Inteligencia Artificial*) in August 2021. The Plan outlines the following three objectives:

- Use AI for the city's development
- Use AI for the benefit of the citizens
- Use cross-cutting tools to ensure the city's sustainability

Under this strategy, the Buenos Aires government has established Buenos Aires AI Lab (*BA Laboratorio IA*), which provides opportunities for training and professional development to the youth and serves as a hub for facilitating R&D and application of AI.[226] As with the National Plan, one of the key aspects of the Buenos Aires strategy is that it aims to foster mechanisms and tools for the development and use of AI technology that respects fundamental values and human rights.[227]

Public Participation

To define the specific risks and opportunities that the AI plan should address, the government organized several meetings to gather the perspectives of people from different disciplines and sectors. Through the 32 working tables that were assembled, experts from the government, the private sector, the scientific community, the academia, civil society and international organizations collaborated actively in this effort of priorities definition. The outcomes provided the basis for the strategic objectives and lines of action reflected in the plan. Several creative workshops and "unconferences" were held as well. However, mechanisms for ordinary citizens to express their views regarding AI could not be identified.

Data Protection

Article 43 of Argentina's Constitution guarantees an individual's access to personal data in private and public registries, and exercise agency over how that data is used. The Argentinian Personal Data Protection Law (PDPL) follows international standards regarding basic personal data rules, and has even been deemed adequate by the European Commission under the former Directive 95/46/EC.[228] A new proposal has been put forward by the former administration to reform the PDPL and related legislation. However the legislative draft has been under consideration by the

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[226] Buenos Aires Ciudad, *Plan de Inteligencia Artificial*
https://buenosaires.gob.ar/jefaturadegabinete/innovacion/plan-de-inteligencia-artificial.
[227] *Ibid.*
[228] DLA Piper, *Data Protection Laws of the World – Argentina* (Jan. 24, 2022), https://www.dlapiperdataprotection.com/index.html?t=law&c=AR.

Argentinean National Congress since 2018, with no formal decision made in that regard as of this date. The purpose of this reform is not only for the country to keep its international status as a jurisdiction that provides an adequate level of protection, particularly after the passing of the European General Data Protection Regulation, but also to keep its data protection regime up to date with the technological and legal developments that have taken place in recent years.

The AAPI is Argentina's data protection authority. Although it enjoys functional autonomy by law, the agency remains under the National Executive Branch from a structural perspective; an aspect that, along with the absence of proper mechanisms in place, has led civil society groups to question the impartiality and independence of the appointment process of its Executive Director.[229]

In September 2022, the AAPI released a new draft bill on personal data protection.[230] Following an extended public consultation featuring 173 submissions, the AAPI took up 80 articles in its final proposal and modified 43 based on public comments. The reform package was presented to Argentina's government for review before introduction to the National Congress of Argentina.[231]

Argentina's AAIP agency has been a member of the Global Privacy Assembly (GPA) since 2018. AAIP co-sponsored both the 2018 GPA Resolution on AI and Ethics and the 2020 Resolution on AI and Accountability.[232]

Argentina is also party to Convention 108 since the first of June 2019. Argentina is also in the process of ratifying Convention 108+.[233] Data. Following an extended public consultation featuring 173 submissions, the AAPI took up 80 articles in its final proposal and modified 43 based on public comments.

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[229] La Asociación por los Derechos Civiles, *Observaciones de la ADC a la candidatura propuesta para la Dirección de la Agencia de Acceso a la Información Pública* (Mar. 17, 2021), https://adc.org.ar/2021/03/17/observaciones-de-la-adc-a-la-candidatura-propuesta-para-la-direccion-de-la-agencia-de-acceso-a-la-informacion-publica/.

[230] Key points in Argentina Data Protection Bill, https://www.lexology.com/commentary/tech-data-telecoms-media/argentina/ojam-bullrich-flanzbaum/new-draft-bill-on-personal-data-protection-in-argentina.

[231] Public Participation *Automated Personal Data Protection Law* , https://www.boletinoficial.gob.ar/detalleAviso/primera/271369/20220912.

[232] Global Privacy Assembly Accredited Members, https://globalprivacyassembly.org/participation-in-the-assembly/list-of-accredited-members/.

[233] Argentina Government, *Data Protection Law*, https://www.argentina.gob.ar/aaip/anglish_version/latest_news.

Algorithmic Transparency

The current Argentinian data protection law does not contain formal legal prescriptions that recognizes the right of citizens to receive information about automated-decision systems or to object to a decision based solely on automatic data processing methods. Nevertheless, the AAPI has provided guidance through a resolution issued on 2019,[234] in which it recognizes that, under the right of access enshrined in the current data protection law, data subjects have the right to request from data controllers an explanation about the logic used by any system that reaches decisions solely based on automated processing of data and which can affect citizens or have pernicious legal effects on them.[235]

The AAPI's proposed reform Act includes the right of citizens to get information about "the existence of automated decision systems, including those that create digital profiles," as well as "meaningful information" about the logic applied by those systems.[236] A formal right to object to a decision based solely on automatic processing methods is also included in the proposal.[237]

The Salta controversy

There are many AI use cases in the public sector.[238] One of the most controversial was the use of AI by the Government of the Province of Salta, in Argentina, which implemented a system to predict teenage pregnancy and school dropout using machine learning algorithms trained on data collected in low-income districts of the city of Salta in the years 2016 and 2017. Parameters taken into consideration included teenagers' personal information (age, ethnicity, country of origin, etc.), environment (number of people with whom they lived, if they had hot water in the bathroom) and if they (adolescent women) were or had already been pregnant.[239]

Facial Recognition

Several documented cases of facial recognition technology use have been reported in various cities and localities as well as at the provincial level

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[234] *Resolución 4/2019*, (RESOL-2019-4-APN-AAIP) (Sept. 13, 2019).

[235] *Annex I of Resolution 4/2019* (IF-2019-01967621-APN-AAIP), http://servicios.infoleg.gob.ar/infolegInternet/anexos/315000-319999/318874/norma.htm.

[236] *Ibid*, Article 28 (h) of the draft Bill.

[237] *Ibid,* Article 32 of the draft Bill.

[238] OECD.AI, *AI Use Cases in The Public Sector Policy*, , https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26831.

[239] The Wired, *The Case of the Creepy Algorithm That 'Predicted' Teen Pregnancy*, https://www.wired.com/story/argentina-algorithms-pregnancy-prediction/

in the country. Facial recognition systems being deployed, according to authorities, for the identification and capture of fugitives (in the Autonomous City of Buenos Aires);[240] for the identification of missing persons and people with criminal backgrounds (town of Tigre, Buenos Aires province)[241]; for the use of the police to surveille massive gatherings (Mendoza province);[242] or for the prevention and prosecution of crimes (Salta province).[243] The program in the City of Buenos Aires in particular was denounced by the UN Special Rapporteur for the Right of Privacy when visiting the city, as a technology whose "proportionality" was questionable when compared to the "serious privacy implications" for people not related to any crime and for not carefully updating and checking for accuracy.[244] Human Rights Watch also denounced the system, noting the illegal exposure of minor's personal information.[245] The City legislature approved a bill in 2020 to authorize the use of AI for the purpose of capturing fugitives.[246] But it has been alleged that this fact does not alter the unconstitutional character of the Buenos Aires program.[247] The increasing and unaccountable use of this technology led to the creation of a national

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[240] Al Sur, *Facial Recognition in Latin America: Trends in the Implementation of a Perverse Technology* (2021), p. 11, https://www.alsur.lat/sites/default/files/2021-11/ALSUR_Reconocimiento_facial_en_Latam_ES.pdf

[241] Ambito, *Tigre lanzó un nuevo sistema de reconocimiento facial* (May 10, 2019), https://www.ambito.com/municipios/municipios/tigre-lanzo-un-nuevo-sistema-reconocimiento-facial-n5030978

[242] El Sol, *Reconocimiento facial: hallaron a más de 100 personas con pedido de captura* (May 20, 2019), https://www.elsol.com.ar/reconocimiento-facial-hallaron-a-mas-de-100-personas-con-pedido-de-captura

[243] *Las cámaras de reconocimiento facial permitieron detener a una persona con pedido de captura* (June 19, 2019), https://www.salta.gob.ar/prensa/noticias/las-camaras-de-reconocimiento-facial-permitieron-detener-a-una-persona-con-pedido-de-captura-64939.

[244] OHCHR, *OHCHR | Statement to the media by the United Nations Special Rapporteur on the right to privacy, on the conclusion of his official visit to Argentina, 6-17 May 2019* (May 17, 2019), https://www.ohchr.org/en/statements/2019/05/statement-media-united-nations-special-rapporteur-right-privacy-conclusion-his?LangID=E&NewsID=24639.

[245] Human Rights Watch, *Argentina publica en línea datos personales de niños y niñas acusados de cometer delitos* (Oct. 9, 2020), http://www.hrw.org/es/news/2020/10/09/argentina-publica-en-linea-datos-personales-de-ninos-y-ninas-acusados-de-cometer.

[246] Asociación por los Derechos Civiles, *La Legislatura porteña debe rechazar el uso de la tecnología de reconocimiento facial para la vigilancia del espacio público* (Oct. 21, 2020)**,** https://adc.org.ar/2020/10/21/la-legislatura-portena-debe-rechazar-el-uso-de-la-tecnologia-de-reconocimiento-facial-para-la-vigilancia-del-espacio-publico/.

[247] iProfessional, ¿Ahora vienen por tu cara?: este experto advierte sobre los peligros del reconocimiento facial (May. 10, 2020), https://www.iprofesional.com/tecnologia/338236-reconocimiento-facial-advierten-sobre-peligros-en-argentina.

campaign by the Association for Civil Rights (*Asociación por los Derechos Civiles*), a very well-known Argentinian human rights organization. With the slogan: "Con mi Cara No" ("Not with my face"), the organization aims to raise awareness about the dangers facial recognition technologies pose to citizens, particularly when their data is included within opaque and unaccountable systems.[248] In September 2022, a trial judge declared the implementation of the Fugitive Facial Recognition System (SRFP, for its name in Spanish) by the Government of the City of Buenos Aires unconstitutional.[249]

Lethal Autonomous Weapon Systems

Argentina has been very critical about the development and use of lethal autonomous weapons systems, particularly those without significant human involvement. Argentina has set out a strong position in public statements as well as within international organizations, including during meetings regarding the Convention on Conventional Weapons. Within the framework of those meetings, Argentina stressed the need "to preserve meaningful human control at all phases of the development and use" of weapons systems.[250] On behalf of the Group of Latin American and Caribbean Countries, Argentina raised several concerns over fully autonomous weapons, including the risks of reprisal, retaliation and terrorism.[251] And Argentina has called for a "preemptive prohibition of the development of lethal autonomous systems.[252]

In October 2022, Argentina was one of the 70 countries which endorsed a joint statement on autonomous weapons systems at the UN General Assembly meeting. In this joint statement, States urged "the international community to further their understanding and address these

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[248] Asociación por los Derechos Civiles, https://conmicarano.adc.org.ar/.

[249] Future of Privacy Forum, *Judge Declared Facial Recognition Unconstitutional,* .https://fpf.org/blog/judge-declares-buenos-aires-fugitive-facial-recognition-system-unconstitutional/#:~:text=Judge%20declares%20Buenos%20Aires'%20Fugitive%20Facial%20Recognition%2System%20Unconstitutional,-FILTER&text=On%20September%207%2C%20a%20trial,City%20of%20Buenos%20Aires%20unconstitutional, See also https://www.cels.org.ar/web/wp-content/uploads/2022/09/reconocimientofacialsentencia070922.pdf.

[250] United Nations, Statement to the Convention on Conventional Weapons Group of Governmental Experts on lethal autonomous weapons systems, (March 26, 2019), https://documents.unoda.org/wp-content/uploads/2020/09/CCW_GGE.1_2019_3_E.pdf.

[251] Government of Argentina, *Statement to the UN Human Rights Council* (May 30, 2013),

[252] United Nations, *Statement to the Convention on Conventional Weapons Fifth Review Conference*, (Dec.12, 2016), https://meetings.unoda.org/ccw-revcon/convention-certain-conventional-weapons-fifth-review-conference-2016.

risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[253]

In February 2023, Argentina endorsed, along with more than 30 other Latin American and Caribbean states, the Belén Communiqué,[254] which calls for "urgent negotiation" of a binding international treaty to regulate and prohibit the use of autonomous weapons to address the grave concerns raised by removing human control from the use of force.

Human Rights

According to the Freedom House 2022 report, Argentina is considered a "free" country under the organization's Global Freedom Scores. receiving overall a score of 84/100.[255] There are concerns about the independence of the Argentinean judiciary. The country's response to the COVID-19 pandemic has also been criticized not only because the government imposed one of the strictest and most prolonged lockdowns in the world, but because its enforcement by the police has been denounced by independent human rights organizations as giving rise to cases of excessive force.[256] In the international arena, Argentina has shown a strong commitment to the protection of human rights, including international and regional initiatives that pertain to AI.

OECD/G20 AI Principles

As part of the G20 and as a prospective member to the OECD, Argentina has endorsed the OECD/G20 AI Principles.[257] According to an OECD report, several policies of Argentina's national AI strategy align with the G20 AI principles. These include the comprehensive, human-centered

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[253] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[254] Communiqué of the Latin American and the Caribbean Conference of Social and Humanitarian Impact of Autonomous Weapons (Feb. 24, 2023), https://www.rree.go.cr/files/includes/files.php?id=2261&tipo=documentos

[255] Freedom House, *Global Freedom Scores*, https://freedomhouse.org/countries/freedom-world/scores.

[256] Freedom House, *Freedom in the World 20221 – Argentina*, https://freedomhouse.org/country/argentina/freedom-world/2022.

[257] OECD Accession Argentina https://www.oecd.org/newsroom/oecd-takes-first-step-in-accession-discussions-with-argentina-brazil-bulgaria-croatia-peru-and-romania.htm.

and human rights-focus nature, which aligns with the Principles for Responsible Stewardship of Trustworthy AI (Section 1); while Argentina's investment initiatives, the focus on conditions for AI development, educational plans and international engagements implement Section 2 of the G20 AI Principles (National Policies and International Co-operation for Trustworthy AI).[258]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Argentina is a UNESCO member and adopted the UNESCO Recommendation on the Ethics of AI during the 41st General Conference in November 2021.

CAF, the development bank of Latin America, and UNESCO signed a letter of intent to collaborate on the implementation of the UNESCO Recommendation in Latin America and the Caribbean. They pledged to create a Regional Council composed of national and local governments in the region which will support their implementation efforts. According to Gabriela Ramos, UNESCO Assistant Director-General for Social and Human Sciences, Argentina will be a member of the Regional Council.[259]

Evaluation

Argentina's comprehensive, ambitious and human-centered national strategy reflects the country's interest in matching socioeconomic development with strong human rights commitments in the design and development of AI. Despite the initial enthusiasm that surrounded the launching of the Plan, the new government seems to have abandoned this path, and adopted instead It remains to be seen how the newly developed Argentina 4.0 to support the use of new technologies for socioeconomic progress will be operationalized in practice. Despite significant progress in modernizing data protection law and bringing it up to international standards, the deployment of facial recognition systems has raised widespread concern that AI could be used for purposes that violate individual rights. Argentina has the resources and the infrastructure to pursue regional leadership. Argentina has signed the UNESCO Recommendation on the Ethics of AI and with the collaboration of the CAF

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[258]OECD/CAF (2022), *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean*, OECD Public Governance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/1f334543-en, , OECD G20 Digital Economy Task Force, Examples of AI National Policies (2020), p. 66 (Table A).
[259] G. Ramos, *Inteligência Artificial ética e responsável: das palavras aos fatos e direitos*, Somos Ibero-America (Feb. 1, 2023), https://www.somosiberoamerica.org/pt-br/tribunas/inteligencia-artificial-etica-e-responsavel-das-palavras-aos-fatos-e-direitos/

is on its path to its implementation. Argentina has also joined other Latin American countries in calling for a prohibition and regulation of autonomous weapons.

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Australia

National AI Strategy

In November 2019, the Australian government published a Roadmap for AI, to "help develop a national AI capability to boost the productivity of Australian industry, create jobs and economic growth, and improve the quality of life for current and future generations."[260] Australia's AI Technology Roadmap is intended to help guide future investment in AI and provide a pathway to ensure Australia captures the full potential of AI.[261] As well as identifying three high potential areas of AI specialization, the Roadmap elaborates the foundations needed in terms of data governance, ethics, trust research, skills and infrastructure. It particularly underscores its complementarity with the OECD AI Principles.

The Roadmap identifies three domains of AI development and application where AI could transform Australian industry, based on existing strengths and comparative advantages, opportunities to solve Australian problems, and opportunities to export solutions to the rest of the world. These domains are Health, Aging and Disability; Cities, Town and Infrastructure (including connected and automated vehicle technology); and National Resources and Environment (especially building on strengths related to mining and agriculture).

The Commonwealth Scientific and Industrial Research Organisation (CSIRO), the national science agency, has said that AI "represents a significant opportunity to boost productivity and improve the national economy." The agency is deploying AI for gene sequencing in crops, sustainable fishing CSIRO, the national science agency, has said that AI "represents a significant opportunity to boost productivity and improve the national economy."[262] The agency is deploying AI for gene sequencing in crops, sustainable fishing to predict the failure of infrastructure, and in hospitals to forecast demand to ensure access to emergency care.[263]

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[260] The Commonwealth Scientific and Industrial Research Organisation (CSIRO), *Artificial Intelligence Roadmap: Australia's artificial intelligence roadmap, developed by CSIRO's Data61 for the Australian Government.* https://data61.csiro.au/en/Our-Research/Our-Work/AI-Roadmap.

[261] The Commonwealth Scientific and Industrial Research Organisation (CSIRO), , *Artificial Intelligence: Solving problems, growing the economy and improving our quality of life* (2019), https://data61.csiro.au/~/media/D61/AI-Roadmap-assets/19-00346_DATA61_REPORT_AI-Roadmap_WEB_191111.pdf.

[262] CSIRO, *Artificial Intelligence*, https://www.csiro.au/en/Research/AI.

[263] CSIRO, *AI at CSIRO*, https://www.csiro.au/en/research/technology-space/ai/about.

In November 2019, Australia also published an AI Ethics Framework to "help guide businesses and governments looking to design, develop, and implement AI in Australia."[264] Key goals are to achieve better outcomes, reduce the risk of negative impact, and practice the highest standards of ethical business and good governance. The eight AI Ethics Principles are Human, social and environmental wellbeing, Human-centered values, Fairness, Privacy protection and security, Reliability and safety, Transparency and explainability, Contestability and Accountability.[265] The Australian government notes that the principles are derived from the Ethically Aligned Design report by IEEE.[266]

The Roadmap and the Ethics Framework were put forward at the AI Technology Summit in 2019.[267] Over 100 leaders and experts in artificial intelligence (AI) technology gathered at the public summit to "help shape Australia's AI future."

Standards Australia also launched Australia's AI Standards Roadmap in March 2020 to support the implementation of the OECD AI principles. The roadmap provides a framework for Australians to shape the development of standards for AI internationally. It explores standards that can promote and develop the opportunities of responsible AI, delivering business growth, improving services and protecting consumers.[268]

In 2020, Australia and Singapore, building on their pre-existing trade agreement, also signed the Singapore-Australia Digital Economy Agreement (SADEA), where Parties agreed to advance their cooperation on AI.[269]

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[264] Australian Government, Department of Industry, Science, Energy and Resources, *AI Ethics Framework*, https://www.industry.gov.au/strategies-for-the-future/artificial-intelligence.

[265] Australian Government, Department of Industry, Science, Energy and Resources, *AI Ethics Principles*, https://www.industry.gov.au/data-and-publications/building-australias-artificial-intelligence-capability/ai-ethics-framework/ai-ethics-principles.

[266] IEEE, *Ethically Aligned Design* (2019), https://ethicsinaction.ieee.org.

[267] Australian Government, Department of Industry, Science, Energy and Resources, *Techtonic: Shaping Australia's AI Future* (Nov. 27, 2019), https://www.industry.gov.au/news-media/techtonic-shaping-australias-ai-future.

[268] Standards Australia (2020), *An Artificial Intelligence Standard Roadmap: Making Australia's Voice, Heard (Final Report)*, Standards Australia, Sydney, https://www.standards.org.au/getmedia/ede81912-55a2-4d8e-849f-9844993c3b9d/O_1515-An-Artificial-Intelligence-Standards-Roadmap-soft_1.pdf.aspx.

[269] The Government of the Republic of Singapore and the Government of Australia, *Memorandum of Understanding between the Government of the Republic of Singapore and the Government of Australia on Cooperation on Artificial Intelligence*,

In order to signal international leadership in AI exports, in March 2022 the Australian Department of Industry, Science and Resources released an issue paper on 'Positioning Australia as a leader in digital economy regulation – Automated decision making and AI regulation' paper for public comment.[270]

Public Participation

In 2020, Standards Australia embarked on a consultation process with Australian representatives of industry, government, civil society and academia to examine how technical specifications and related material can support artificial intelligence in Australia.[271] As a result, in March 2020, Standards Australia published "Artificial Intelligence Standards Roadmap: Making Australia's Voice Heard."[272] One of the key themes highlighted was "Australia's opportunity to build 'responsible AI' through Standards."[273]

The development of Australia's AI Ethics Framework also followed a public consultation. The Minister for Industry, Science and Technology Karen Andrews released a discussion paper to encourage conversations on how to design, develop, deploy and operate AI in Australia.[274] In particular, the Australian government sought feedback on the draft AI Ethics Principles presented in the discussion paper. The Minister received more than 130 submissions from government, business, academia, non-government organizations and individuals. According to the Minister, the submissions generally supported a principles-based framework to guide the design, development, deployment and operation of AI in Australia. There were

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https://www.mti.gov.sg/-/media/MTI/Microsites/DEAs/Singapore-Australia-Digital-Economy-Agreement/MOUs/MOU-on-Cooperation-on-Artificial-Intelligence.pdf.

[270] Australian Government, Department of Industry, Science and Resources, *Positioning Australia as a leader in digital economy regulation (automated decision making and AI regulation)* (May 2022),
https://consult.industry.gov.au/automated-decision-making-ai-regulation-issues-paper.

[271] Standards Australia, *Standards Australia sets priorities for Artificial Intelligence* (Mar. 2020), https://www.standards.org.au/news/standards-australia-sets-priorities-for-artificial-intelligence.

[272] Standards Australia, *FINAL REPORT: An Artificial Intelligence Standards Roadmap: Making Australia's Voice Heard* (Mar. 2020),
https://www.standards.org.au/getmedia/ede81912-55a2-4d8e-849f-9844993c3b9d/R_1515-An-Artificial-Intelligence-Standards-Roadmap-soft.pdf.aspx.

[273] Ibid, p. 26.

[274] The Hon Karen Andrews MP, Minister for Industry, Science and Technology, *Seeking feedback on ethics of artificial intelligence* (Apr. 5, 2019),
https://www.minister.industry.gov.au/ministers/karenandrews/media-releases/seeking-feedback-ethics-artificial-intelligence.

questions about how the draft principles can be applied in practice. The Law Council of Australia provided extensive comments on the Ethics Framework. The Council expressed concerns about the administrative law implications of AI: "an AI involved in a government decision should be able to explain its decision-making process."[275]

Noted Australian AI ethics researcher Roger Clarke published a critical assessment of the AI Ethics Principles. In 2019 Clarke undertook an extensive survey of AI policy frameworks and identified 10 themes and 50 principles.[276] Clarke concluded that the AI Ethics Principles for Australia adequately addressed only 13 of the 50 Principles.[277] "An additional 19 are partly or weakly addressed, and 18 are not addressed at all." Clarke stated that "the key to achieving trust is to ensure trustworthiness of the technologies and of organisations' uses of the technologies. That requires a comprehensive set of principles of real substance; articulation of them for each stage of the supply chain; educational processes; means of encouraging their application and discouraging behaviour in breach of the principles; a credible regulatory framework; and the enforcement of at least baseline standards."

A 2020 survey of Australian attitudes toward AI found high levels of support for the use of AI to address social, humanitarian and environmental challenges.[278] The survey also found high levels of support for legislation to ban the use of lethal autonomous weapons, ensure the safety of autonomous vehicles, and protect data privacy.

Another public consultation took place in Octover 2020 on "Mapping Australia's Artificial Intelligence and Autonomous Systems Capability."[279] Part A of the survey sought information at an organizational level about Australia's national artificial intelligence and autonomous

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[275] Law Council of Australia, *Artificial Intelligence: Australia's Ethics Framework* (June 28, 2019), https://www.lawcouncil.asn.au/docs/b3ebc52d-afa6-e911-93fe-005056be13b5/3639%20-%20AI%20ethics.pdf.

[276] Roger Clarke, *Responsible AI Technologies, Artifacts, Systems and Applications: The 50 Principles,* http://www.rogerclarke.com/EC/AIP.html#App1.

[277] Roger Clarke, *The Australian Department of Industry's 'AI Ethics Principles'* of September / November 2019: Evaluation against a Consolidated Set of 50 Principles (Nov. 12, 2019), http://www.rogerclarke.com/EC/AI-Aust19.html.

[278] Monash Data Futures Institute, *AI FOR SOCIAL GOOD? Australian public attitudes toward AI and society* (Aug. 2020), https://www.monash.edu/__data/assets/pdf_file/0019/2313262/MDFI_AI_for_Social_Good_report_Final.pdf.

[279] Australian Government, Department of Industry, Science, Energy and Resources, *Mapping Australia's Artificial Intelligence and Autonomous Systems Capability* (Oct. 2, 2020) (closes Nov. 29, 2020), https://consult.industry.gov.au/digital-economy/mapping-australias-ai-capability/.

systems capabilities. Part B of the survey focused on unique, world-leading and significant Australian case studies and projects.

In March 2022, the Australian Department of Industry, Science and Resources released "Positioning Australia as a leader in digital economy regulation" requesting for public comment on automated decision making and AI regulation.[280]

Data Protection

In February 2023, the Australian Attorney-General's Department released its review of the Privacy Act 1988,[281] a significant step in the reform of Australia's privacy law. The Privacy Act Review Report[282] includes 116 recommendations based on 30 "key themes and proposals" from stakeholders during the course of the last two years. "The proposed reforms are aimed at strengthening the protection of personal information and the control individuals have over their information. Stronger privacy protections would support digital innovation and enhance Australia's reputation as a trusted trading partner," according to the Attorney-General's Department.

The Office of the Australian Information Commissioner welcomed the release of the report. "This is an important milestone as we move towards further reform of Australia's privacy framework," Australian Information Commissioner and Privacy Commissioner Angelene Falk said. "As the privacy regulator we see the proposal to introduce a positive obligation that personal information handling is fair and reasonable, as a new keystone of the Australian privacy framework. This shifts the burden from individuals, who are currently required to safeguard their privacy by navigating complex privacy policies and consent requirements, and places more responsibility on the organisations who collect and use personal information to ensure that their practices are fair and reasonable in the first place."[283]

In his review of the Privacy Act 1988, the Federal Attorney-General referred positively to a Human Technology Institute (HIT)'s

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[280] Australian Government, Department of Industry, Science and Resources, *Positioning Australia as a leader in digital economy regulation (automated decision making and AI regulation): issues paper*, (May 2022), https://consult.industry.gov.au/automated-decision-making-ai-regulation-issues-paper.
[281] *Privacy Act 1988*, https://www.legislation.gov.au/Series/C2004A03712
[282] Department of the Attorney-General, *Review of the Privacy Act 1988* (Feb. 16, 2023), https://www.ag.gov.au/integrity/consultations/review-privacy-act-1988
[283] Office of the Australian Information Commissioner, *OAIC welcomes release of Privacy Act report* (Feb. 16, 2023), https://www.oaic.gov.au/newsroom/oaic-welcomes-release-of-privacy-act-report

report outlining a Facial Recognition Model Law.[284] The Federal Attorney-General noted that the Model Law is "a way of striking the right balance, endorsing, in principle, a risk assessment approach to regulating facial recognition and other biometric technologies." "The HTI report responds to growing calls for reform from leading voices in civil society, the private sector, government and academic experts." In its submission to the Attorney-General's consultation on the Privacy Act Review report, HTI again calls for immediate action on dedicated regulation for facial recognition technology.[285]

Algorithmic Transparency

The concept of algorithmic transparency is briefly addressed in the AI Ethics Framework. The Victorian Information Commissioner warns of risks associated with "corporate co-option" of transparency and accountability mechanisms.[286] The paper argues that "significant resources must be invested in developing the necessary skills in the public sector for deciding whether a machine learning system is useful and desirable, and how it might be made as accountable and transparent as possible."

In early 2019, the Australian Human Rights Commission called for an AI Policy Council to guide companies and regulators regarding artificial intelligence technology. "When companies use AI decision-making systems, they must build them in a way that allows a person to understand the basis of decisions that affect them. This is fundamental to ensuring accountability and will be really important for all companies that use AI," Human Rights Commissioner Ed Santow said.[287]

In a 2020 paper, Santow called on the Australian government to modernize privacy and human rights laws to take into account the rise of artificial intelligence.[288] "We need to apply the foundational principles of

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[284] Human Law Technology, *A blueprint for regulation of facial recognition technology* (Sept. 2022), https://www.uts.edu.au/news/business-law/blueprint-regulation-facial-recognition-technology

[285] Human Technology Institute, *Facial recognition technology: Towards a model law*, https://www.uts.edu.au/human-technology-institute/projects/facial-recognition-technology-towards-model-law

[286] Jake Goldenfein, *Algorithmic Transparency and Decision-Making Accountability: Thoughts for Buying Machine Learning Algorithms* (Aug. 31, 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3445873

[287] James Eyers, *Call for 'AI policy council' to govern how algorithms use personal information*, Financial Review (Mar. 15, 2020), https://www.afr.com/technology/call-for-ai-policy-council-to-govern-how-algorithms-use-personal-information-20190315-h1cej1

[288] Australian Human Rights Commission, *Human Rights and Technology: Discussion Paper* (Dec. 2019), https://tech.humanrights.gov.au/sites/default/files/2019-12/TechRights2019_DiscussionPaper.pdf

our democracy, such as accountability and the rule of law, more effectively to the use and development of AI," he said.

Lethal Autonomous Weapons

In October 2022, Australia was one of 70 states that endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an international framework of rules and constraints.[289] In this joint statement, States declared that they "are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[290]

In February 2023, Australia participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Government representatives, including Australia, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[291] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities

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[289] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly,* (2022) https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

[290] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

[291] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[292]

EdTech

In May 2022, in a global investigative report on the education technology (EdTech) endorsed by for children's education during the pandemic, Human Rights Watch analyzed the technical and policy features of Minecraft: Education Edition used in Australia. Human Rights Watch found that the endorsements of this online learning platform put at risk or directly violated children's rights due their tracking abilities for advertising purposes.

According to Human Rights Watch, in line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop, refine, and enforce modern child data protection laws and standards, and ensure that children who want to learn are not compelled to give up their other rights in order to do so.[293]

Human Rights

Australia is a signatory to many international human rights treaties and conventions. Freedom House ranked Australia very highly (97/100) in 2020 and 2021 and reported that, "Australia has a strong record of advancing and protecting political rights and civil liberties. Challenges to these freedoms include the threat of foreign political influence, harsh policies toward asylum seekers, and ongoing difficulties ensuring the equal

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[292] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[293] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments.

rights of indigenous Australians."[294] In 2022, Freedom House ranked Australia "free" however its status declined (95/100).[295]

OECD/G20 AI Principles

Australia has endorsed the OECD and the G20 AI Principles. Regarding implementation of the AI Principles, the OECD notes the Australia Roadmap for AI, the AI Ethics Framework, and the Australia's AI Standards Roadmap, "intended to identify priority areas for AI standards development and a pathway for Australian leadership on international standardization activities for AI."[296] The OECD also notes the work of Australia on trustworthy AI for health.

Australia joined the Global Partnership on AI as a founding member in June 2020.[297] Minister Andrews stated, "Australia is committed to responsible and ethical use of AI. Membership of the GPAI will allow Australia to showcase our key achievements in AI and provide international partnership opportunities which will enhance our domestic capability." Andrews further stated, "Membership of the GPAI will build on the work the Government started at last year's National AI Summit, which brought together 100 AI experts to discuss the challenges and opportunities which AI will present for the Australian economy."

UNESCO Recommendation on Ethics of AI

In November 2021, Australia adopted the UNESCO Recommendation on the Ethics of AI.[298] Its AI strategy was published

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[294] Freedom House, *Freedom in the World 2020 – Australia* (2020), https://freedomhouse.org/country/australia/freedom-world/2020;;Freedom House, *Freedom in the World 2020 – Australia* (2021), https://freedomhouse.org/country/australia/freedom-world/2021.

[295] Freedom House, *Freedom in the World 2022*, https://freedomhouse.org/country/australia/freedom-world/2022.

[296] OECD, G20 Digital Economy Task Force, *Examples of National AI Policies* (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf; OECD (2021), *State of implementation of the OECD AI Principles: Insights from national AI policies* (Jun 18, 2021), https://doi.org/10.1787/1cd40c44-en; OECD (2021), An overview of national AI strategies and policies (August, 2021), https://goingdigital.oecd.org/data/notes/No14_ToolkitNote_AIStrategies.pdf.

[297] The Hon Karen Andrews MP, Minister for Industry, Science and Technology, *Australia joins global partnership on artificial intelligence* (June 16, 2019), https://www.minister.industry.gov.au/ministers/karenandrews/articles/australia-joins-global-partnership-artifical-intelligence

[298] UNESCO, *UNESCO adopts first global standard on the ethics of artificial intelligence*, https://www.unesco.org/en/articles/unesco-adopts-first-global-standard-ethics-artificial-intelligence.

before the finalization of the UNESCO Recommendations and therefore contains no explicit reference to the Recommendation. It remains to be seen how Australia will implement it in practice.

Evaluation

Australia has set out an AI Roadmap and an AI Ethics Framework. Australia has encouraged public participation in the development of AI policy, joined the Global Partnership on AI and has a strong record on human rights. Australia has independent agencies, including a national regulator for privacy and freedom of information[299] and a human rights commission that is engaged in AI oversight. Australia was also a cosponsor of the GPA resolution on Accountability in the development and use of AI. However, questions have been raised about the adequacy of the Ethics Framework and Australia should take steps to implement the UNESCO Recommendation on the Ethics of AI. The modernization of Australia's data protection law to better protect the human rights has been going on for several years but it is encouraging that it seems to be progressing. In the meantime, concerns exist with regard to facial recognition and it remains to be seen whether the modernization of Australia's data protection law will encompass this aspect as well.

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[299] Australian Government, Office of the Australian Information Commission, *Human Rights and Technology Discussion Paper* (Dec. 2019), https://tech.humanrights.gov.au/sites/default/files/2019-12/TechRights2019_DiscussionPaper.pdf

Austria

National AI Strategy

The Austrian Government presented the national AI strategy, Artificial Intelligence Mission Austria 2030' (AIM AT 2030), in August 2021.[300] The objectives are: A broad use of AI oriented to the common good; Positioning Austria as an innovation location for AI in key areas and fields of strength; Securing the competitiveness of Austria through the development and use of AI.

The Austrian strategy is guided by the two cornerstones of the European AI strategy: an ecosystem for trust and an ecosystem for excellence. Austria not only supports increased cooperation at the European level, as proposed in the European Commission's White Paper on AI[301] and the EU AI Act,[302] but also intends to shape national AI ecosystems in line with the European AI strategy.[303]

The Austrian strategy is based on a human-centered approach to AI in order to ensure that resources are used to support fundamental European values and respect and guarantee fundamental rights, such as privacy and the principle of equality. Citizens' involvement is also identified as key.[304] Regarding ethical principles,[305] reference is made to the European High-Level Expert Group on AI's Ethics guidelines for trustworthy AI.[306] Accordingly, AI systems must fulfil three basic principles to be considered trustworthy. They must:

- "be lawful by respecting all existing laws and regulations;

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[300] Federal Ministry of the Republic of Austria, Digital and Economic Affairs, *Strategy of the Austrian Federal Government for Artificial Intelligence, AIM AT 2030* (2021), https://www.bmf.gv.at/dam/jcr:c1312d0a-6209-4e92-8631-aea93130e392/2021-AIM_AT_2030_UA-bf.pdf

[301] White Paper on Artificial Intelligence: a European approach to excellence and trust, COM(2020) 65 final, 19/02/2020, https://ec.europa.eu/info/sites/default/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf

[302] *Proposal for an AI Regulation laying down harmonised rules on artificial intelligence*, 21/04/2021, COM/2021/206 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1623335154975&uri=CELEX%3A52021PC0206

[303] A*IM AT 2030*, p. 20.

[304] A*IM AT 2030*, p. 22.

[305] Whereas the Council for Robotics and Artificial Intelligence [Rat für Robotik und Künstliche Intelligenz (ACRAI)] laid the foundation to this discussion in the 2018 white paper *Die Zukunft Österreichs mit Robotik und Künstlicher Intelligenz positiv gestalten,* https://www.acrai.at/wp-content/uploads/2020/03/ACRAI_White_Paper_EN.pdf

[306] High-Level Expert Group on Artificial Intelligence, *Ethics guidelines for trustworthy AI* (2019), https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai

- respect ethical principles and values such as equality and fairness; and
- be robust, both in a technical sense and from a societal perspective."[307]

The Strategy also mentions the need to establish a clear legal framework that releases innovation in science and economy, reduces uncertainties and at the same time guarantees legal certainty. The Austrian Federal Government supports the creation of a Europe-wide legal framework for AI applications to avoid isolated national solutions.

The Federal Ministry Republic of Austria Climate Action, Environment, Energy, Mobility, Innovation and Technology is in charge of AI policy. Under the broad topic of innovation, the Ministry oversees topics such as digital policy, international/EU aspects, future mobility, research technology and innovation policy in Austria.[308]

The Austrian Council on Robotics and Artificial Intelligence (ACRAI) which consisted of experts on robotics, and artificial intelligence from industry, research and teaching used to advise the Federal Ministry Republic of Austria Climate Action, Environment, Energy, Mobility, Innovation and Technology on top priorities, topical issues, challenges, risks, on the use of artificial intelligence as well as robotics and autonomous systems. ACRAI's mandate expired in October 2021 and the council was subsequently disbanded[309].

An interministerial working group chaired by the Federal Ministry for Climate Protection, Environment, Energy, Mobility, Innovation and Technology and the Federal Ministry of Science, Research and Economy is to be set up to accompany the implementation of the strategy and to promote regular updates. In addition, the ongoing involvement of the relevant stakeholders and the public will be ensured. This is to be done in part through 64 defined measures.[310]

In Austria, Research and Technology Reports are *compiled annually*. The focus lies on current topics of national and international research and technology. Reports include information on current developments and trends, extensive data on research and development, as

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[307] Federal Ministry of the Republic of Austria, Digital and Economic Affairs, *Strategy of the Austrian Federal Government for Artificial Intelligence, AIM AT 2030* (2021), p. 27, https://www.bmf.gv.at/dam/jcr:c1312d0a-6209-4e92-8631-aea93130e392/2021-AIM_AT_2030_UA-bf.pdf

[308] Federal Ministry Republic of Austria Climate Action, Environment, Energy, Mobility, Innovation and Technology "Innovation", https://www.bmk.gv.at/en/topics/innovation.html

[309] Austrian Council on Robotics and Artificial Intelligence (2021), https://www.acrai.at/

[310] *AIM AT 2030*, p. 62.

well as priority topics. Currently, the Government of Austria does not offer any specific annual report about developments regarding AI or monitoring the implementation of the AI strategy.[311]

Public Participation

Experts and other stakeholders were involved in the development of the national AI strategy.[312] The strategy also provides for broad participation of civil society organizations, intermediaries, and citizens in the implementation of the measures. Furthermore, the Federal Government endeavors to formulate its target provisions in close coordination and comprehensive agreement with the fundamental values and objectives of the European Union. With this strategy, Austria is thus also contributing to the promotion of Europe's industrial and technical performance regarding AI.

Data Protection

Since Austria is an EU Member State, the General Data Protection Regulation (GDPR)[313] is directly applicable in Austria and to Austrians. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[314] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018. The Austrian Data Protection Act (DSG) supplements the GDPR.[315]

According to Article 35(4) GDPR, national supervisory authorities shall compose and publish the list of processing operations that requires performing a data protection impact assessment. According to the list

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[311] Austrian Federal Ministry of Education, Science and Research, *Austrian Research and Technology Report*, (2022)
https://www.bmbwf.gv.at/en/Topics/Research/Research-in-Austria/Services/FTB.html
[312] The Austrian Council on Robotics and AI (ACRAI) served as an advisor to the Government and its departments until 23 October 2021, https://www.acrai.at/en/home/
[313] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html
[314] European Commission, *Data protection in the EU*,
https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en
[315] *Federal Act concerning the Protection of Personal Data* (Datenschutzgesetz - DSG), (entered into force on May 25, 2018),
https://www.ris.bka.gv.at/Dokumente/Erv/ERV_1999_1_165/ERV_1999_1_165.html

established by the Austrian DPA, a data protection impact assessment is necessary in some cases involving AI use. These concern:

"- processing which involves an assessment or classification of natural persons - including the compilation of profiles and forecasts - for purposes relating to the performance of the person's work, economic situation, health, personal preferences and interests, reliability or behaviour, location or movements, and which is based solely on automated processing and may have negative legal, physical or financial consequences.

- processing of data for the purpose of evaluating the behaviour and other personal aspects of natural persons and which may be used by third parties to make automated decisions that have legal effects on the persons evaluated or similarly significantly affect them.

- processing of data using or applying new or novel technologies or organisational solutions which make it difficult to assess the impact on data subjects and the social consequences, in particular through the use of artificial intelligence and the processing of biometric data, provided that the processing does not involve the mere real-time reproduction of facial images.

- merging and/or cross-checking of data sets consisting of two or more processing operations carried out for different purposes and/or by different controllers, in the framework of a data processing operation going beyond the processing operations normally expected of a data subject, where the use of algorithms makes it possible to take decisions which significantly affect the data subject."[316]

Regarding the activities of law enforcement authorities, Austria transposed the EU Data Protection Law Enforcement Directive (LED)[317] with the DSG as well.[318] "The directive protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime

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[316] *Regulation of the Data Protection Authority on processing operations for which a data protection impact assessment is required (DSFA-V)* (2018),
https://edpb.europa.eu/sites/default/files/decisions/at_sa_dpia_final_decision.pdf
[317] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*,
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504
[318] *Federal Act concerning the Protection of Personal Data* (Datenschutzgesetz - DSG), (entered into force on May 25, 2018),
https://www.ris.bka.gv.at/Dokumente/Erv/ERV_1999_1_165/ERV_1999_1_165.html

are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[319] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[320] The LED also requires for Member States, including Italy, to enable data subjects to exercise their rights via national data protection authorities.[321]

"Consistency and a high level of protection among Member States is key in order to ensure effective judicial cooperation in criminal matters and police cooperation. The LED provides for the European Data Protection Board (EDPB) to issue guidelines, recommendations and best practices (on its own initiative or at the Commission's request) in order to ensure that the Member States apply the LED consistently."[322] The EDPB currently chaired by Andrea Jelinek, the head of the Austrian Data Protection Authority (DPA), has produced guidelines on the use of facial recognition technologies in the area of law enforcement.[323] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[324]

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[319] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[320] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[321] Article 17 of the LED.

[322] Communication from the Commission to the European Parliament and the Council, *First report on application and functioning of the Data Protection Law Enforcement Directive (EU) 2016/680 ('LED')* (July 25, 2022), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0364&qid=1658824345764#footnote136

[323] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

[324] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Austria is also a member of the Council of Europe and ratified the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[325]

The Austrian DPA is a member of the Global Privacy Assembly (GPA) since 2002. The DPA did not endorse the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence;[326] the 2020 GPA Resolution on AI Accountability;[327] or the 2022 GPA Resolution on Facial Recognition Technology.[328]

Algorithmic Transparency

Austria is subject to the GDPR, as well as Convention 108+ since July 2022. Austrians have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[329]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[330] specifically

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[325] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018), https://www.coe.int/en/web/data-protection/convention108-and-protocol

[326] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[327] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[328] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[329] See Recital 63 and Article 22 of the GDPR. Article 9 c) of the Convention 108+ as well as Recital 77, *Explanatory Report, Convention 108+*, p. 24, https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1

[330] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (April 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[331]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[332]

Research show that the Public Employment Service Austria (AMS) makes use of algorithmic profiling of job seekers, and there have been concerns about notable discrimination and bias.[333] Algorithm Watch also disclosed that the sorting algorithm used in Austria for employment gives

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[331] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (April 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[332] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (April 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[333] Nicolas Kayser-Bril, *Austria's employment agency rolls out discriminatory algorithm, sees no problem* (2020), https://algorithmwatch.org/en/austrias-employment-agency-ams-rolls-out-discriminatory-algorithm/

lower scores to the disabled and women, and women with children are given even more negative weight.[334] On this matter, the Australian Federal Administrative Court rendered a decision before Austria ratified the Modernized Convention 108. The Court held at the time that the Public Employment Service could lawfully process personal data belonging to jobseekers as this was necessary in order to guarantee a well-functioning labour market. This is outlined in Austrian law and it is in the substantial public interest in line with Article 9(2)(g) GDPR."[335] On the one hand, the Court stressed that "there are no indications that such data processing is not sufficiently clear in section 25 AMSG and is not otherwise regulated by means of adequate and specific measures to protect the fundamental rights and interests of the person concerned. It should be noted that the result of (any) assessment undoubtedly depends not only on the (personal) data used, but also on who or what carries out the assessment and how the individual factors (data) are weighted in each case. An assessment based on the same (personal) data may therefore not always lead to the same result. However, this does not change the fact that the result is based on the same (personal) data and thus the same information." On the other hand, the Court pointed out that "the case of an automated decision, which is separately regulated by Article 22 of the GDPR, is not given here, because the assessment of labour market opportunities is only to be carried out with the help of AMAS. The final decision on a jobseeker's chances of finding work and his or her further support remains with the counsellors, and not only were guidelines and instructions issued by the Public Employment Service to its employees, but training courses were also held."[336]

In September 2020, the DPA ruled on a case concerning the calculation of marketing scores. The "scores consisted of alleged likelihoods (expressed in a percentage number) that the complainant would belong to certain demographic groups, such as "conservatives", "traditionalists", "hedonists" or "digital individualists".[337] The complainant sent an access request under Article 15(1)(h) GDPR on how the marketing scores had been calculated. The respondent refused to access to the request

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[334] Nicolas Kayser-Bril, *Austria's employment agency rolls out discriminatory algorithm, sees no problem* (2020),
https://algorithmwatch.org/en/austrias-employment-agency-ams-rolls-out-discriminatory-algorithm/
[335] GDPR hub, *BVwG – W2562235360-1,* (31/03/2021).
https://gdprhub.eu/index.php?title=BVwG_-_W256_2235360-1
[336] GDPR hub, *BVwG – W2562235360-1,* (31/03/2021).
https://gdprhub.eu/index.php?title=BVwG_-_W256_2235360-1
[337] GDPR hub, *DSB (Austria) - 2020-0.436.002*,
https://gdprhub.eu/index.php?title=DSB_(Austria)_-_2020-0.436.002

because the requested information qualified as a trade secret. The DPA first held that the marketing scores constitute personal data under Article 4(1) GDPR. The processing activities leading to the creation of the marketing scores constitute profiling within the meaning of Article 4(4) GDPR. According to the DPA, the right to information under Article 15(1)(h) GDPR is not limited to cases of automated decision making. The DPA further held that the respondent was not required to disclose the algorithm, source code or compiler code used when creating the marking scores (as this would most likely qualify as a trade secret under Directive 2016/943/EU. However the respondent "had to provide the following information in connection with the score calculation: parameters / input variables and how they came about (e.g. using statistical information); effect of the parameters/input variables on the score; explanation of why the data subject was assigned to a particular evaluation result; list of possible profile categories or similar equivalent information that enable the data subject to exercise his or her rights of rectification and erasure and to review the lawfulness of processing."

Facial Recognition

Since December 2017, 25 "E-Gates", where border controls are supported by facial recognition, have been installed at the Vienna International Airport in Austria. Manual border controls have also remained in place.[338]

After a one-year test phase, facial recognition for law enforcement has been in regular operation in Austria since August 2020. The police can only use digital image comparison if there is a suspicion of the commission of an intentional judicially punishable act in the case of unknown perpetrators. The Ministry of the Interior published information about the use of the software after parliamentary inquiries.[339] Accordingly, the Federal Criminal Police Office may use the system to investigate intentional acts, authorized by the judiciary, regardless of the level of punishment for an offense. Whether Austrian law allows for such practice has been the object of a controversy in Austria. [340]

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[338] Passenger Self Service, *Vienna International Airport installs ABC eGates from secunet* (Dec. 19, 2017), https://www.passengerselfservice.com/2017/12/vienna-international-airport-installs-abc-egates-secunet/

[339] Federal Ministry of the Interior, *Query Response Parliamentary Question No. 2648/J: "Findings from the Test Operation of the Face Recognition System (2662/AB),"* (Sept. 4, 2020) https://www.parlament.gv.at/PAKT/VHG/XXVII/AB/AB_02662/index.shtml#

[340] Florian Terharen-Schoenherr, *Facial recognition technology: regulations and use – Austria* (Apr. 6, 2021), https://iclg.com/briefing/16092-facial-recognition-technology-regulations-and-use-austria

Predictive Policing

Efforts to base police work on computer-assisted forecasts have existed in Austria since 2004.[341] Due to the increasing importance of big data and AI, an increase and expansion of predictive policing methods is to be expected in the next few years. Most of the predictive policing methods developed or applied in Austria do not affect the scope of protection of the right to respect for privacy (Art 8 ECHR, Art 7 GRC) or the fundamental right to data protection (Art 1 § 1 Abs 1 DSG, Art 8 GRC), and are intended in particular to support the patrol service and burglary prevention.[342] The situation was different with the project called INDECT, in which an Austrian university, the FH Technikum Wien, was also involved.[343] In this project, personal data from social media was to be combined with retained data and video recordings in order to be able to identify "abnormal behavior" at an early stage. The project was funded by the European Commission from 2009 to 2014.[344] Neither the official project website, nor the official project website of the FH Technikum Wien show further information on this project.[345]

Automated Tax Fraud Detection

The Austrian Ministry of Finance operates the Predictive Analytics Competence Center (PACC). The expectation is that the use of AI will make a significant contribution to establishing a more efficient risk management structure with an increased efficiency in auditing, fraud prevention and tax collection.[346]

Approximately 6 million income tax disclosures and 1.4 million applications for COVID-19 assistance payments were reviewed by PACC

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[341] Adensamer and Klausner, *Ich weiss, was du nächsten Sommer getan haben wirst: Predictive Policing in Österreich* (2019), 419, https://doi.org/10.33196/juridikum201903041901

[342] Adensamer and Klausner, *Ich weiss, was du nächsten Sommer getan haben wirst: Predictive Policing in Österreich* (2019), 419, https://doi.org/10.33196/juridikum201903041901

[343] Laub, *INDECT: Anonymous macht gegen totale Überwachung mobil*, der Standard (July 20, 2012), https://derstandard.at/1342139631592/INDECT-Totale-Ueberwachung-als-EU-Projekt

[344] Antonio Tajani, *Answer to a written question - Indect project, data protection breach - E-1332/2010 and E-1385/2010* (May 3, 2020) https://www.europarl.europa.eu/doceo/document/E-7-2010-1332-ASW_EN.html

[345] Adensamer and Klausner, *Ich weiss, was du nächsten Sommer getan haben wirst: Predictive Policing in Österreich*, pp. 8-10 (2019), https://doi.org/10.33196/juridikum201903041901

[346] Federal Ministry of Finance (2022). https://www.bmf.gv.at/themen/betrugsbekaempfung/einheiten-betrugsbekaempfung/Predictive-Analytics-Competence-Center.html

in an automated manner. Based on machine learning, potential fraud scenarios are derived from a variety of historical data sources. This method is used, among other things, for the selection of tax audits, plausibility checks of tax returns, and the evaluation of start-ups and applications of all kinds. The Ministry of Finance claims that this will make it easier to detect tax evasion, including customs fraud.[347]

User Tracking and Website Analytics

Many websites use tracking technologies to track users and show them personalized advertisement. The Austrian Data protection Authority, after declaring the use of Google Analytics illegal,[348] held a similar decision with regard to the "Facebook Login" and "Meta Pixel" tools provided by Meta.[349] If these tools are used, data is inevitably transferred to the United States, where the data is at risk of intelligence surveillance. Such transfer would contravene the European Court of Justice's 2020 *Schrems II* decision. According to NOYB, "there is no information if a penalty was issued or if the DSB is planning to also issue a penalty. The GDPR foresees penalties of up to € 20 million or 4% of the global turnover in such cases, but data protection authorities seem unwilling to issue fines, despite controllers ignoring two CJEU rulings for more than two years."[350]

Lethal Autonomous Weapons

Austria supports a legally binding instrument that would ban autonomous weapons and systems that are not meaningfully controlled by humans.[351] At the virtual conference, "Safeguarding Human Control over Autonomous Weapon Systems" held in September 2021,[352] the Austrian Ministry for European and International Affairs through the Federal

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[347] Austria Press Agency (Sept. 2022)
https://www.ots.at/presseaussendung/OTS_20220911_OTS0004/bmfspezialeinheit-pacc-2021-rund-6-mio-arbeitnehmerveranlagungen-und-14-mio-antraege-auf-covid-19-hilfszahlungen-ueberprueft
[348] GDPRhub, *DSB (Austria) - 2021-0.586.257 (D155.027)* (Dec. 12, 2021),
https://gdprhub.eu/index.php?title=DSB_(Austria)_-_2021-0.586.257_(D155.027)
[349] GDPRhub, *DSB (Austria) - 2022-0.726.643* (March 3, 2023),
https://gdprhub.eu/index.php?title=DSB_(Austria)_-_2022-0.726.643
[350] noyb, *Austrian DSB: Meta Tracking Tools Illegal* (March 16, 2023),
https://noyb.eu/en/austrian-dsb-meta-tracking-tools-illegal
[351] DW Akademie "Austria wants ethical rules on battlefield killer robots"
https://www.dw.com/en/austria-wants-ethical-rules-on-battlefield-killer-robots/a-55610965 1
[352] Austrian Ministry for European and International Affairs
https://www.reachingcriticalwill.org/resources/calendar/event/15378-safeguarding-human-control-over-autonomous-weapon-systems 1

Minister for European and International Affairs of Austria, situated themselves as the vanguard of many disarmaments, non-proliferation, and arms control issues. They also talked about the challenges of AI, and questioned algorithms which make death or life decisions based on ethics, morality and law and called for a legal norm in the form of a treaty to ensure human control.[353]

Austria was among the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[354]

Human Rights

According to Freedom House, Austria scores highly for political rights and civil liberties 2022 (93/100), and is designated as "Free."[355]Austria was the 70th country that joined the United Nations and is party to the most important international legal instruments for the protection and defence of human rights.[356]

With regards to AI policy, as part of the objectives contained in its AI Strategy, Austria states that it will deploy AI responsibly targeting the common good relying on fundamental human rights.[357] The strategy further provides that a human-rights compliant framework is being created in partnership with European partners in order to ensure that fundamental rights issues are tackled.[358]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of

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[353] Austrian Ministry for European and International Affairs
https://www.reachingcriticalwill.org/resources/calendar/event/15378-safeguarding-human-control-over-autonomous-weapon-systems
[354] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022),
https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf
[355] Freedom House, *Freedom in the World 2021 – Austria,*
https://freedomhouse.org/country/austria/freedom-world/2021
[356] United Nations, *The United Nations in Vienna,* https://www.unvienna.org/
[357] *AIM AT 2030.*
[358] *AIM AT 2030.*

Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[359]

OECD AI Principles

Austria has endorsed the OECD and G20 AI Principles. Regarding implementation, the OECD notes that Austria is actively involved in relevant international organizations, the EU and other processes and its AI strategy specifically addresses "human-centered values and fairness, robustness, security and safety, inclusive growth, sustainable development and well-being, investing in AI R&D and providing an enabling policy environment for AI."[360]

Austria is not a member of the Global Partnership on AI, a multi-stakeholder initiative which aims to foster international cooperation on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[361]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Austria has endorsed the UNESCO Recommendations on AI, the first ever global agreement on the ethics of AI.[362]

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[359] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[360] OECD AI Observatory, *AI Mission Austria 2030*, https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-24233

[361] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/.

[362] United Nations Educational, Scientific and Cultural Organization (UNESCO), *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (Nov. 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence.

Evaluation

The Austrian AI strategy, released in late 2021, follows the larger goals of the EU strategy, emphasizing both excellence and the protection of fundamental rights. Austria has emphasized public participation in the development of the national AI strategy and receives expert advice from the Austrian Council on Robotics and Artificial Intelligence, which has stressed the importance of human-centric AI. Following the discontinuation of this Council, it remains to be seen when and how it will be replaced. Austria ranks highly for traditional human rights protection and is active at the OECD, although it is not a member of the Global Partnership on AI. In July 2022, Austria ratified the Modernized Convention 108 of the Council of Europe which includes an important provision on algorithmic transparency. This should avoid any doubts in the future regarding the scope of application of the right to algorithmic transparency. It remains to be seen how Austria's endorsement of the UNESCO Recommendation on the Ethics of AI will translate in practice. Concerns also persist regarding the use of AI techniques for facial surveillance and predictive policing.

Azerbaijan

National AI Strategy

In recent years, Azerbaijan has taken an active interest in Artificial Intelligence and new technologies to reform the country's economy and extend internal security and policing.[363] The Ministry of Economy of the Republic of Azerbaijan announced in February 2022 that the country would establish an AI Strategy[364]. In December 2022, the Acting Chairperson at the Innovation and Digital Development Agency of the Ministry of Digital Development and Transport, Inara Valiyeva, declared that the AI strategy would be finalized by the end of 2023. The Minister also emphasized that the Azerbaijan Artificial Intelligence Lab created under the Ministry was an important effort in this direction.[365]

In 2016, Azerbaijan approved the "Strategic Roadmap for Development of Telecommunications and Information Technologies in the Azerbaijan Republic" (hereinafter Roadmap)[366]. The Roadmap focuses on Information Communication Technology (hereinafter ICT) sector and sets three main strategic targets:

- Improve governance structures and strengthen ICT;
- Increase productivity and operational efficiency of the business environment;
- Digitize government and social environment[367].

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[363] Vahid Aliyev, *Azerbaijan's newfound orientation towards Artificial Intelligence and Robots* (May 20, 2020), https://www.researchgate.net/profile/Vahid-Aliyev/publication/341598034_Azerbaijan's_newfound_orientation_towards_Artificial_Intelligence_and_Robots/links/5ec9301092851c11a8817e42/Azerbaijans-newfound-orientation-towards-Artificial-Intelligence-and-Robots.pdf

[364] Azernews, *Azerbaijan to develop national artificial intelligence strategy* (Feb. 11, 2022) https://www.azernews.az/nation/189013.html

[365] Qazet.az, *The National Artificial Intelligence Strategy in Azerbaijan will be ready next year* (Dec. 16, 2022)*,* https://qazet.az/en/the-national-artificial-intelligence-strategy-in-azerbaijan-will-be-ready-next-year

[366] The President of the Republic of Azerbaijan, *Strategic Roadmap for Development of Telecommunications and Information Technologies in Azerbaijan Republic* (Dec. 6, 2016) https://monitoring.az/assets/upload/files/6683729684f8895c1668803607932190.pdf

[367] The Asian Development Bank, *Country Diagnostics Azerbaijan: Country Digital Development Overview*, (Jan., 2019), pg. 2 https://www.adb.org/sites/default/files/institutional-document/484586/aze-digital-development-overview.pdf

In February 2021, Azerbaijan adopted its "2030 vision: National Priorities on Socio-Economic Development,"[368] which highlighted the importance of technological transformation.

Both the Ministry of Economy and the Ministry of Digital Development and Transport have been active in areas related to AI adoption. The Ministry of Economy manages the Center for Analysis and Coordination of the Fourth Industrial Revolution established by Presidential Decree of January 6, 2021. The mandate of the center is to respond to global challenges and trends including artificial intelligence.[369] In October 2021, another Presidential Decree established the Innovation and Digital Development Agency under the Ministry of Digital Development and Transport This decision aimed to "improve governance in the field of digitalization, innovation, high technologies and communications in the Republic of Azerbaijan."[370]

Public Participation

Azerbaijan needs to establish a process for public consultations for matters of policy in AI or policies in general. The country is committed, as a member of the Council of Europe (CoE) to implement the National Action Plan for the Promotion of Open Government 2020-2022, which among several goals, is intended to enhance digitalization, enhance civilian oversight, expand public participation and prevent corruption.[371] Azerbaijan, is part of the Enlarged Partial Agreement of the North-South Centre of the Council of Europe (NSC), to encourage a bottom-up dialogue between civil society and other democratic governance actors around four goals: global development education, youth co-operation, women empowerment and migration.

Data Protection

Data Protection is enshrined in the Constitution of the Republic of Azerbaijan. Article 32, paragraph VIII establishes the right to inviolability of private life, and states that the "scope of the personal information, as well

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[368] The President of Azerbaijan, *Order of the President of the Republic of Azerbaijan on approval of "Azerbaijan 2030: National Priorities for Socio-Economic Development"* (Feb. 2, 2021), https://president.az/en/articles/view/50474
[369] Ministry of Economy of the Republic of Azerbaijan, *Fourth Industrial Revolution,* https://www.economy.gov.az/en/page/dorduncu-senaye-inqilabi .
[370] Ministry of Digital Development and Transport of the Republic of Azerbaijan*, Innovation and Digital Development Agency public legal entity.* https://mincom.gov.az/en/view/organization/35/
[371] Council of Europe. *Action Plan Azerbaijan 2022-2025* (Feb 1, 2022). https://rm.coe.int/action-plan-azerbaijan-2022-2025-eng/1680a59aa3

as the conditions of their processing, collection, passing, use and protection is prescribed by law.[372]

The country's data protection laws also currently encompass three bodies of legislation:[373] (1) the Law on State Secrets,[374] (2) the 1998 Law on Data, Data Processing and Data Protection and (3) the 2010 Law on Personal Data.[375] The Personal Data Law provides for data subjects' right to be informed, right to access, right to rectification, right to erasure, right to object opt-out, and right not to be subject to automated decision-making (unless this is required by law). The Law regulates the collection, processing and protection of personal data, in the public and private sectors. The Law also covers cross-border transfer of personal data, and the rights and obligations of public bodies and local authorities, individuals and legal entities operating in this field.

The Ministry of Transport, Communications and High Technologies (MTCHT) is the authority tasked with the implementation of this Law. A 2018 Decree of the President of the Republic of Azerbaijan dated January 2018 authorizes the MTCHT to[376] exercise the authority to avoid infringements of the provision of the law, ensure information security, verify compliance in collection, processing and protection of personal data, and keep registry on information resources related to personal data. Are also involved in the implementation of the data protection legal regime: the Ministry of Communications and High Technologies, State Security Service, the Ministry of Internal Affairs, and the Ministry of Justice and Special State Protection Service.[377]

Azerbaijan is a Party to Convention 108 or Convention for the Protection of Individuals with regard to Automatic Processing of Personal

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[372] President of the Republic of Azerbaijan Ilham Aliyev, *Constitution of the Republic of Azerbaijan,* https://president.az/en/pages/view/azerbaijan/constitution .

[373] Council of Europe. *Action Plan for Azerbaijan 2022-2025* (Feb 1, 2022). https://rm.coe.int/action-plan-azerbaijan-2022-2025-eng/1680a59aa3

[374] Law of 7 September 2004 No. 733-IIQ *Azərbaycan Respublikasının Ədliyyə Nazirliyi Hüquqi aktların vahid elektron bazası, Dövlət sirri haqqında Azərbaycan Respublikasının Qanunu*, https://e-qanun.az/framework/5526

[375] Was adopted by the Milli Majlis of the Republic of the Azerbaijan on 11 May 2010 upon the Law No 998-IIIQ. *Azərbaycan Respublikasının Milli Məclisi, Fərdi məlumatlar haqqında Azərbaycan Respublikasının Qanunu,* https://meclis.gov.az/news-qanun.php?id=1201&lang=az

[376] E-gov, *Regulations of the Ministry of Transport, Communications and High Technologies of the Republic of Azerbaijan,* https://www.e-gov.az/en/news/read/630

[377] Council of Europe, *Data Protection systems in the Republic of Azerbaijan, December 2016,* https://rm.coe.int/16806ee927

Data.[378] Convention 108 reaffirms the fundamental values of respect for privacy. Article 5 defines the need for personal data to be "obtained and processed fairly and lawfully." Convention 108 requires Azerbaijan to establish an independent dedicated authority for the data protection system.

The Council of Europe (CoE) Action Plan for Azerbaijan 2022-2025 launched in April 2022 has a specific chapter on data protection and artificial intelligence. Azerbaijan is committed to:

- move closer to signing and ratifying the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (Convention 108+).
- adopt legislation compliant with the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (ETS No. 108).
- establish a dedicated independent authority for personal data protection.
- disseminate and implement Council of Europe guidelines on the use of artificial intelligence.
- Conduct an awareness-raising campaign on the importance of data protection for the benefit of the local population.

The Chief of Special Communication and Information Security State Service of Azerbaijan, Tural Mammadov, said during an event on "Cyber-secure economy: reforms, innovative approaches and solutions" in September, 2022 that a draft law on ensuring personal data protection has been prepared in Azerbaijan based on European standards, the GDPR in particular.[379]

Azerbaijan is not an accredited member of the Global Privacy Assembly and has not sponsored the 2018 GPA resolution on AI and Ethics,[380] the 2020 Resolution on AI and Accountability,[381] or the 2022 Resolution on Facial Recognition Technology.

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[378] Republic of Azerbaijan, *Law of the Republic of Azerbaijan on approval of "Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data"* 879-IIQ. https://mincom.gov.az/upload/files/38c3de8877a7e94f1577e71b770bbe32.pdf

[379] Azernews, *Azerbaijan applying effective measures to ensure population's protection from cyber attacks,* https://www.azernews.az/business/199707.html

[380] International Conference of Data Protection & Privacy Commissioners, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[381] Global Privacy Assembly (GPA). *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct 2020),

Algorithmic Transparency

Azerbaijan has neither signed nor ratified the protocol modernizing Convention 108 which provides for algorithmic transparency.[382] National legislation does not provide for algorithmic transparency either.

AI Readiness and Digitization

The Azerbaijan government has taken concrete steps to promote technology innovation. In June 2019, the Presidential Decree No. 718 created a Centralized Government Cloud,[383] for the effective organization of the formation, storage, maintenance and integration of state information systems and reserves. This Decree also emphasized AI related matters as follows:

- The document supports innovative solutions based on Artificial Intelligence and robotics;
- Azerbaijan will use "machine learning" (M2M), "artificial intelligence" (EU), "big data" and "internet of things" (IoT) as bases for providing public services in the country.

In April 2021, the E-GOV Development Center of the State Agency for Public Service and Social Innovations organized the International Conference on Artificial Intelligence in Digital Governance. The first panel discussions were dedicated to the transformation of healthcare with AI, the second panel focused on AI and society and the last session addressed the future of artificial intelligence and how it will change human life.[384]

The Center for Analysis and Coordination of the Fourth Industrial Revolution (C4IR) held several events dedicated to AI and machine learning. The events focused on exchanging views and experience on the development of AI and machine learning with the involvement of

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https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[382] Council of Europe, *Treaty Office: Complete list of the Council of Europe's treaties*, https://www.coe.int/en/web/conventions/full-list

[383] The President of the Republic of Azerbaijan, *Strategic Roadmap for Development of Telecommunications and Information Technologies in Azerbaijan Republic* (Dec. 6, 2016),
https://monitoring.az/assets/upload/files/6683729684f8895c1668803607932190.pdf

[384] The State Agency for Public Service and Social Innovations under the President of the Republic of Azerbaijan, *The international conference on "Artificial Intelligence in Digital Governance" has ended* (Apr. 28, 2021),
https://www.digital.gov.az/en/media/press/the-international-conference-on-artificial-intelligence-in-digital-governance-has-ended

government agencies, private companies, scientific and educational institutions, and civil society.[385]

In February 2022, the Azerbaijan State University of Economics organized a conference on Trends of the Fourth Industrial Revolution, attended by government officials and representatives of the World Economic Forum (footnote)government officials, and representatives of scientific and educational institutions, companies and start-up centers. The participants addressed government readiness for artificial intelligence, goals of national artificial intelligence strategies, problems and solutions in this process, public-private partnerships, national artificial intelligence ecosystem[386].

The Head of the Innovation and Digital Development Agency of Azerbaijan, Inara Valiyeva, an entity of the Ministry of Digital Development and Transport, announced the planned introduction of the Unified Court System based on AI for January 2023. The Unified Court System is currently operating in test mode, in coordination with the Supreme Court, with about 50,000 documents used in the creation of the system.[387] Azerbaijan plans to focus on improving the quality of decision-making and management by using Big Data and AI technologies.[388]

Azerbaijan also plans to develop the concept of Smart Cities/Villages. The President of Azerbaijan, Ilham Aliyev, had announced in January 2021 that "settlements recently liberated from Armenian occupation will be re-established based on the concept of smart city/village."[389] The Concept of Smart Cities and Smart Villages was later approved by the President Order N2584 in April 2021.[390] The plans have

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[385] The Ministry of Economy of Azerbaijan, *Another Artificial Intelligence Event organized* (Nov. 27, 2021), https://old.economy.gov.az/en/article/suni-intellekt-uzre-novbeti-tedbir-teshkil-edilib/32162

[386] The Ministry of Economy of Azerbaijan , *Sessions held within "Trends of the Fourth Industrial Revolution" event* (Feb. 24, 2022), https://www.economy.gov.az/en/article/dorduncu-senaye-i-nqilabinda-trendler-movzusunda-tedbir-cherchivesinde-sessiyalar-kechirilib/32341

[387] Report News Agency, *Azerbaijan creates Unified Judicial System based on artificial intelligence, https://report.az/en/ict/azerbaijan-creates-unified-judicial-system-based-on-artificial-intelligence/*

[388] *Report News Agency, Azerbaijan creates Unified Judicial System based on artificial intelligence,* https://report.az/en/ict/azerbaijan-creates-unified-judicial-system-based-on-artificial-intelligence

[389] AA. *Azerbaijan to build 'smart cities' in liberated regions* (Jan 26, 2021). https://www.aa.com.tr/en/azerbaijan-front-line/azerbaijan-to-build-smart-cities-in-liberated-regions/2123643

[390] The President of the Republic of Azerbaijan, *Order N718* (Apr. 19, 2021), https://mincom.gov.az/upload/files/514dcf5c743a46ccd44c65b04f65f881.pdf

the potential to attract investors and create opportunities for local companies through smart cities. The Smart City/Village concept is to be implemented through working groups representing various ministries.[391] A publication of the Baku Research Institute provides insights about the Smart Cities concept as a means to promote sustainable development of territories and attract population back.[392] The World Bank published a framework and Smart Villages Readiness Index for Azerbaijan, to support the country in ensuring that economic opportunities, access of service and governance are applied in the process[393].

In October 2022, a mission of the Center for Analysis and Coordinator of the Fourth Industrial Revolution (C4IR) participated in a "Global Dialogue: The role of artificial intelligence in the new global development- innovation and inclusiveness", presenting the measures taken by the government in regards to the digital economy in the country.[394]

Biometrics

The Law on Biometric Data adopted in 2008 determines the formation and requirements for biometric information resources, the organization and purpose of the biometric identification system, the application of biometric technologies and regulates the relations arising in this area. Azerbaijan began issuing biometric based electronic identity cards in September 2018. The cards contain information on citizen's place of residence, marital status, as well as photos and fingerprints if the citizen is over age of 15.[395]

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[391] AA. *Azerbaijan to build 'smart cities' in liberated regions* (Jan 26, 2021), https://www.aa.com.tr/en/azerbaijan-front-line/azerbaijan-to-build-smart-cities-in-liberated-regions/2123643

[392] Baku Research Institute. *Building Smart Ciites and Villages in Azerbaijan- Challenges and Opportunities* (Aug 6, 2021) https://bakuresearchinstitute.org/en/building-smart-cities-and-villages-in-azerbaijan-challenges-and-opportunities/

[393] World Bank. *A framework for Developing Smart Villages in Azerbaijan* (Oct 19, 2021), https://www.worldbank.org/en/country/azerbaijan/publication/a-framework-for-developing-smart-villages-in-azerbaijan

[394] Azertag, *Azerbaijan's Center for Analysis and Coordination of Fourth Industrial Revolution attends international event in Geneva* (Oct 12, 2022), https://azertag.az/en/xeber/Azerbaijans_Center_for_Analysis_and_Coordination_of_Fourth_Industrial_Revolution_attends_international_event_in_Geneva-2331065

[395] Was adopted by the Milli Majlis on 13 June 2008 by Law No 651-IIIQ, *Azərbaycan Respublikasının Ədliyyə Nazirliyi Hüquqi aktların vahid elektron bazası, Biometrik informasiya haqqında Azərbaycan Respublikasının Qanunu*, https://e-qanun.az/framework/15144

Facial Recognition

In December 2019, a report by Qurium indicated that the government may be using Find Face facial-recognition technology. Qurium identified an AzerTelecom server running the software.[396]

In February 2022 the Ministry of Transport, Communications and High Technologies (MTCHT) announced a Public-Private Partnership with SVORT and Sinam, under AzInTelecom LLC[397] to develop a new generation cloud digital signature called SIMA[398]. SIMA's initial purpose is to facilitate access to e-government services but expands to the use of services through banks, mobile operators, internet providers and household appliance stores. SIMA combines face recognition, public key and cloud technologies and is based on biometric authentication. Based on SIMA signatures, the Information Computing Centre of the MTCHT is developing a payment system with face recognition technology.[399] Users scan their identity card and verify their identity via face recognition through the front camera of the mobile devices.[400] E-signatures are regulated by the Law of Azerbaijan on Electronic Signature and Electronic Document of 9 March 2004.[401] No amendments were introduced concerning SIMA, biometric authentication or facial recognition.

AI Surveillance

Freedom House 2022 report indicated that *"state surveillance is pervasive, though the exact extent to which security agencies monitor ICT activity or track users remains unclear."*[402] Usage of surveillance tools by

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[396]Qurium, *Find Face and Internet Blocking in Azerbaijan* (Dec. 3, 2019), https://www.qurium.org/alerts/azerbaijan/find-face-and-internet-blocking-in-azerbaijan/

[397] Azerbaijan International Telecom (AzInTelecom) LLC is established under the MTCHT to supervise in the field of international accounting system of communication for more information please see: https://mincom.gov.az/en/view/organization/10/

[398] The Ministry of Digital Development and Transport of Azerbaijan, *New generation digital signature presented in Azerbaijan – SIMA* (Feb. 11, 2022), https://mincom.gov.az/en/view/news/1431/new-generation-digital-signature-presented-in-azerbaijan-sima

[399] Xeberler, *A payment system will be introduced in Azerbaijan* (Nov. 5, 2021), https://xeberler.az/new/details/azerbaycanda-uztanima-ile-odenis-sistemi-tetbiq-edilecek--27254.htm

[400] Sadraddin Aghjayev, *Azerbaijan eyes creating new payment service using e-signature capabilities (Interview)* (Mar. 14, 2022,) https://en.trend.az/business/3568769.html

[401] *Law of the Republic of Azerbaijan on electronic signature and electronic document* (Mar 9, 2004), https://mincom.gov.az/upload/files/55d6592556a028f7d533d589f283c4c7.pdf

[402] Freedom House, *Freedom of the Net 2022*, https://freedomhouse.org/country/azerbaijan/freedom-net/2022

Azerbaijan Government was also reported by Amnesty International.[403] The OCCRP (Organized Crime and Corruption Reporting Project) named Azerbaijan's surveillance as "Digital Autocracy."[404] A report by Open Tech found that Azerbaijan is one of several countries where censorship, facial recognition, and access to encrypted communication have been prevalent as forms of information control.[405]

The Law on Operative-Search Activity of Azerbaijan authorizes agencies to conduct surveillance without a court order in cases where it is regarded as necessary to prevent serious crimes against individuals or especially dangerous crimes against the state. The vaguely written provision leaves the law open to abuse. It has long been believed that the State Security Service and the Ministry of Internal Affairs monitor the communications of certain individuals, especially foreigners, prominent political activists, and business figures.[406]

In 2015, leaked documents from the Italian surveillance company Hacking Team showed that the Azerbaijani government was a client.[407] In previous year, Citizen Lab reported that the government was using RCS (Remote Control System) spyware sold by Hacking Team. RCS endpoint in Azerbaijan was active between June and November 2013. Azerbaijan hit international headlines in 2013 when the results of the October presidential elections were accidentally released before voting began.[408] RCS allows

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[403] Amnesty International, *Demand an end to the targeted surveillance of Human Rights Defenders* (Aug. 16, 2016), https://www.amnesty.org/en/petition/targeted-surveillance-human-rights-defenders/

[404] Miranda Patrucic and Kelly Bloss, *Life in Azerbaijan's Digital Autocracy: 'They Want to be in Control of Everything* (Jul. 18, 2021), https://www.occrp.org/en/the-pegasus-project/life-in-azerbaijans-digital-autocracy-they-want-to-be-in-control-of-everything

[405] Valentin Weber, *The Worldwide Web of Chinese and Russian Information Controls*, p. 20, https://public.opentech.fund/documents/English_Weber_WWW_of_Information_Controls_Final.pdf

[406] Freedom House, *Freedom of Net 2021*, https://freedomhouse.org/country/azerbaijan/freedom-net/2021

[407] Cora Currier, *A Detailed Look at Hacking Team's Emails about its Respective Clients* (Jul. 7, 2015), https://theintercept.com/2015/07/07/leaked-documents-confirm-hacking-team-sells-spyware-repressive-countries/, also please see Amnesty International, *New EU Dual Use Regulation agreement 'a missed opportunity' to stop exports of surveillance tools to repressive regimes* (Mar. 25, 2021), https://www.amnesty.org/en/latest/news/2021/03/new-eu-dual-use-regulation-agreement-a-missed-opportunity-to-stop-exports-of-surveillance-tools-to-repressive-regimes/

[408] Citizen Lab, *Mapping Hacking Team's "Untraceable" Spyware*, (Feb. 17, 2014), https://citizenlab.ca/2014/02/mapping-hacking-teams-untraceable-spyware/

anyone with access to activate a targeted device's camera and microphone and to steal videos, photos, documents, contact lists, or emails[409].

In 2017, Amnesty International reported that Azeri human rights activists, journalists and political dissidents have been the targets of a sustained 'spear phishing' campaign using emails and Facebook chat, apparently aimed at gaining access to their personal information and private communications[410]. In the same year, malware targeted Azeri dissidents too[411].

An April 2018 report by Qurium revealed that in 2015, Azerbaijan had purchased specialized security equipment, in particular Deep Packet Inspection (DPI) technology, from the Israeli company Allot Communications for some $3 million.[412]

In October 2018, Israeli newspaper Haaretz reported that Israel's Verint Systems had sold surveillance equipment and software to the Azerbaijani government, and local police later used it to identify the sexual orientation of users on Facebook.[413] Haaretz express its thoughts that a few years after Verint's systems began being used in the country, in 2017 Azeri police started arresting and torturing 45 gay men and transgender women.[414]

In July 2021, an investigative initiative led by Forbidden Stories, concluded that the Pegasus software, produced by the Israeli cybersurveillance company NSO Group, was used in Azerbaijan targeting potentially more than 40 Azerbaijani journalists.[415] Reporters with the Organized Crime and Corruption Reporting Project (OCCRP), which was

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[409] Freedom House, *Freedom of Net 2021*,
https://freedomhouse.org/country/azerbaijan/freedom-net/2021

[410] Amnesty International, *Azerbaijan: Activists targeted by 'government-sponsored' cyberattack* (Mar. 10 2017), https://www.amnesty.org/en/latest/news/2017/03/azerbaijan-activists-targeted-by-government-sponsored-cyber-attack/

[411] Amnesty International, *False Friends: How Fake Accounts and Crude Malware Targeted Dissidents in Azerbaijan* (Mar. 10, 2017),
https://www.amnesty.org/en/latest/research/2017/03/false-friends-spearphishing-of-dissidents-in-azerbaijan/

[412] Qurium, *Corruption, Censorship and a Deep Packet Inspection Vendor* (Apr. 10, 2018),
https://www.qurium.org/alerts/azerbaijan/corruption_censorship_and_a_dpi_vendor/

[413] Haaretz, *Revealed: Israel's Cyber-spy Industry Helps World Dictators Hunt Dissidents and Gays* (Oct. 20, 2018) https://www.haaretz.com/israel-news/.premium.MAGAZINE-israel-s-cyber-spy-industry-aids-dictators-hunt-dissidents-and-gays-1.6573027

[414] Ibid.

[415] The Amnesty International, *Massive data leak reveals Israeli NSO Group's spyware used to target activists, journalists, and political leaders globally* (Jul. 19, 2021),
https://www.amnesty.org/en/latest/news/2021/07/the-pegasus-project-2/

among the groups working on the project, found some 250 potential targets in Azerbaijan, the majority of which were "dissidents, activists, journalists, and opposition politicians." It added that "journalists came under particular pressure, with dozens of prominent names, including OCCRP's Khadija Ismayilova, appearing on the list."[416]

In September 2021, the day full-scale war erupted between Azerbaijani and Armenian forces in Nagorno-Karabakh, the MTCHT throttled mobile and fixed-line broadband internet across Azerbaijan and blocked a number of social media platforms and websites, including Facebook, WhatsApp, and Skype. The action lasted 46 days—Azerbaijan's longest internet disruption to date.[417]

Lethal Autonomous Weapons Systems

Azerbaijan is not a party to the Convention on Conventional Weapons (CCW),[418] although the country participated as an observer on CCW meetings on killer robots in November 2019.[419] Azerbaijan is not among those countries, which support a ban on lethal autonomous weapons.[420]

Over the last decade, Azerbaijan has steadily built up its armed forces, and purchased weapons from Russia, Israel and Turkey.[421] Azerbaijan also developed drone arsenal composed of Turkish and Israeli UAVs, which inter alia include: Bayraktar TB2 (purchased from Turkey in June 2020); loitering munitions purchased from Israel: the Harop (during 2014-2016), Orbiter 1k (2016-2019), Orbiter-3 (2016-2017), SkyStriker (2016-2019); Medium-altitude, long-endurance UAVs purchased from

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[416] Freedom House, *Freedom of Net 2021*,
https://freedomhouse.org/country/azerbaijan/freedom-net/2021
[417] Ibid.
[418] United Nations Office for Disarmament Affairs, *High Contracting Parties and Signatories CCW*, (Status as of Apr. 7, 2022), https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/high-contracting-parties-and-signatories-ccw/
[419] United Nations Office for Disarmament Affairs, *Final Report of the Meeting of High Contracting Parties to the Convention on Conventional Weapons* (Nov. 13-15, 2019), CCW/MSP/2019/9, https://documents-dds-ny.un.org/doc/UNDOC/GEN/G19/343/64/PDF/G1934364.pdf?OpenElement
[420] Human Rights Watch, *Stopping Killer Robots: Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control* (Aug. 10, 2020) https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and
[421] Ibid.

Israel: Hermes-900 (2017-2018), Hermes-450 (2008-2013), Heron (2011-2013)[422].

In 2016, during the Four-day War, Azerbaijan used the Harop, that hit many targets, including artillery, air defence systems and a busload of Armenian troops.[423] As Forbes reported,[424] the Harops were supplied by IAI. In 2017 a team from Aeronautics was in Azerbaijan to finalize a contract for Orbiter 1K kamikaze drones and were asked to attack enemy positions. Apparently when the Israeli drone operators refused, "senior representatives of the company took control and operated the craft themselves, ultimately missing their targets." Israeli authorities imposed a two-year ban on Aeronautics for this stunt. But when the ban expired in 2019, the company promptly announced a $13m deal to sell drones to Azerbaijan. In the longer term, the Azerbaijan plans to produce a licensed copy of the Orbiter known as Zarba themselves. In 2018, an Azeri company announced it was working on three different sizes of kamikaze drone,[425] including one with an 11-pound warhead able to cruise for three hours looking for targets, while another company announced manufacturing kamikaze-drone called Bat.[426]

During the 2020 War, Azerbaijan used several UAVs or autonomous weapons. The videos of the drone strikes have been posted daily on the website of the Azerbaijan's Defense Ministry, broadcast on big screens in the capital, Baku, and tweeted and retweeted online.[427]

Algorithm Watch reported that Azerbaijani forces used at least three different models of drones that are capable of identifying and destroying a

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[422] Centre for Strategic and International Studies, *The Air and Missile War in Nagorno-Karabakh: Lessons for the Future of Strike and Defence (*Dec. 8, 2020), https://www.csis.org/analysis/air-and-missile-war-nagorno-karabakh-lessons-future-strike-and-defense

[423] Forbes, *The Weird And Worrying Drone War In The Caucasus* (Jun. 22, 2020), https://www.forbes.com/sites/davidhambling/2020/06/22/the-weird-and-worrying-drone-war-in-the-caucasus/?sh=5a3148f145da

[424] Ibid.

[425] Azeri Defence, *Azerbaijani company has made prototype of three kinds of loitering munitions* (Mar. 15, 2018), https://web.archive.org/web/20180528041925/http:/en.azeridefence.com/azerbaijani-company-has-made-prototype-of-three-kinds-of-loitering-munitions/

[426] Azernews, *Azerbaijan Academy of Sciences produces kamikaze drone* (Apr. 26, 2018), https://www.azernews.az/nation/138175.html

[427] The Washington Post, *Azerbaijan's drones owned the battlefield in Nagorno-Karabakh — and showed future of warfare* (Nov. 11, 2020), https://www.washingtonpost.com/world/europe/nagorno-karabkah-drones-azerbaijan-aremenia/2020/11/11/441bcbd2-193d-11eb-8bda-814ca56e138b_story.html

target automatically.[428] The 2020 War rose serious questions concerning the legality of using UAVs and autonomous weapons. Ulrike Franke, autonomous weapons expert from the European Council on Foreign Relations, saw a watershed in warfare and commented: "The really important aspect of the conflict in Nagorno-Karabakh, in my view, was the use of these loitering munitions, so-called 'kamikaze drones' – these pretty autonomous systems."[429] Human Rights Watch, in a statement to support the International Committee of the Red Cross initiative to ban Killer Robots, indicated:"the increased use of weapons systems with autonomy in today's armed conflicts underscores the importance of creating a new international legal standard now, before it is too late." [430]

In the preliminary report on the draft of the UNESCO Recommendation on the Ethics of AI Azerbaijan was referenced as a case of the use of AI technologies in armed conflicts. The conclusion was that: "from the point of view of international humanitarian law, it is highly recommended to have certain regulations concerning the use of AI in military technology, so-called lethal autonomous weapons."[431]

Human Rights

Azerbaijan is a Member State of the Council of Europe and of the United Nations, and has human rights obligations at the regional[432] and universal levels. Azerbaijan endorsed the Universal Declaration of Human Rights.[433]

The most recent reports of Freedom House in 2022 rank Azerbaijan as "Not Free" for both Global Freedom (score 9 out of 100), and "Internet

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[428] Algorithm Watch, *The Year Algorithms Escaped Quarantine: 2020 in Review* (Dec. 28, 2020),
https://algorithmwatch.org/en/review-2020/

[429] Deutsche Welle, *DW report on cyber and autonomous weapons: "Future Wars – and How to Prevent Them* (Jun. 7, 2021), https://www.dw.com/en/dw-report-on-cyber-and-autonomous-weapons-future-wars-and-how-to-prevent-them/a-57801575

[430] Human Rights Watch, *International Committee of the Red Cross Backs Killer Robot Ban* (May 13, 2021) https://www.hrw.org/news/2021/05/13/international-committee-red-cross-backs-killer-robot-ban

[431] UNESCO. *Compilation of Comments Received from Member States on the first Draft of the Recommendation.* (2021), https://unesdoc.unesco.org/ark:/48223/pf0000376747

[432] Council of Europe, *46 Member States* (2023). https://www.coe.int/en/web/portal/46-members-states

[433] International Justice Resource Center, *Azerbaijan, https://ijrcenter.org/country-factsheets/country-factsheets-europe/azerbaijan-human-rights-factsheet/#:~:text=It%20has%20accepted%20the%20complaints,Social%20and%20Cultural%20Rights%20(ICESCR)*

freedom" (score 38).[434] Freedom House 2022 Report describes the power in Azerbaijan as authoritarian, with high levels of corruption, persecution of political opposition, violation of civil liberties and territorial conflicts with neighboring countries.[435]

As a member of the Council of Europe, Azerbaijan participates in the Committee on Artificial Intelligence (CAI), mandated to draft a legally-binding instrument on AI for the protection of human rights, democracy and the rule of law.

In April 2022, the Council of Europe (CoE) Action Plan for Azerbaijan 2022-2025 was launched. This strategic programming instrument seeks to align legislation, institutions and practices further with CoE standards in human rights, the rule of law and democracy.[436] Among the objectives of the Action Plan are: the implementation of the UN 2030 Agenda for Sustainable Development,[437] and the identification of areas for co-operation in artificial intelligence.

Azerbaijan is also part of Partnership for Good Governance, through which the European Union and the Council of Europe cooperate to strengthen governance in the Eastern Partnership region[438] to advance localized efforts to improve "stability, prosperity and resilience."[439]

OECD AI Principles

Azerbaijan is not an OECD member and has not endorsed the OECD AI Principles. The OECD Development Centre has been supporting Azerbaijan in the promotion of enterprise digitalization. A 2022 study highlighted the significance of digitalization to allow Small Medium Enterprises access to strategic resources and integration into global markets.[440]

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[434] Freedom House, *Freedom of Net 2021*, https://freedomhouse.org/country/azerbaijan/freedom-net/2021

[435] Freedom House, *Freedom In the World 2022: Azerbaijan,* https://freedomhouse.org/country/azerbaijan/freedom-world/2022

[436] Council of Europe, *Council of Europe Action Plan for Azerbaijan 2022-2025,* https://rm.coe.int/action-plan-azerbaijan-2022-2025-eng/1680a59aa3

[437] United Nations, *Sustainable Development Goals* (2023), https://www.un.org/sustainabledevelopment/

[438] EEAS, *Eastern Partnership (EaP)* (Mar 3, 2022). https://www.coe.int/en/web/portal/46-members-states

[439] Council of Europe, *https://www.coe.int/en/web/cepej/cooperation-programmes/partnership-for-good-governance-azerbaijan,* https://www.coe.int/en/web/cepej/cooperation-programmes/partnership-for-good-governance-azerbaijan

[440] OECD (2022), *Promoting Enterprise Digitalisation in Azerbaijan*, OECD Publishing, Paris, https://doi.org/10.1787/6a612a2a-en

UNESCO Recommendation on the Ethics of Artificial Intelligence

Azerbaijan is a UNESCO member since 1992 and is one of the 193 countries that endorsed the UNESCO Recommendation on the Ethics of AI. [441] It remains to be seen which steps Azerbaijan will take to implement the Recommendation.

Evaluation

Azerbaijan has set an ambitious goal of embracing new technologies in an effort to propel the economic growth of the country. The digitalization process in Azerbaijan has been accelerating in recent years and has stimulated several initiatives, including the Arzerbaijan Artificial Intelligence Lab. The development of a National AI Strategy is a priority for Azerbaijan, and the Ministry of Economy and the Ministry of Digital Development and Transport are working toward a release in 2023. The country has not yet signed the protocol modernizing Convention 108, it still has to create an independent agency or mechanism for data (and AI) oversight, and has yet to modernize as well its data protection law regime. Concerns exist that, with the use of AI, Azerbaijan is turning into a "digital autocracy." The country has not endorsed any declaration against the use of LAWS and has been a laboratory for their use in the Nagorno-Karabakh conflict.

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[441] UNESCO, *UNESCO Member States Adopt the First Ever Global Agreement on the Ethics of Artificial Intelligence* (April. 21, 2022),
https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence

Bahrain

National AI Strategy

The Kingdom of Bahrain has declared AI as one of the focus areas of its digital strategy plans. Notwithstanding Bahrain's relatively strong position as a leader in cloud technology and e-government in the Gulf Region, and a strong Government AI readiness index,[442] the country is yet to formulate an AI policy framework. [443]

Under the leadership of HM King Hamad bin Isa Al Khalifa, King of Bahrain, the government initiated plans for the transition of Bahrain to a knowledge-based economy that keeps pace with the global trends in science and technology.[444] In the opening of the 5th legislative cycle of 2019, H.M. directed the government to undertake a national plan to increase the readiness for the digital economy "by adopting and employing artificial intelligence technology in the production and service sectors, through the establishment of the necessary systems and technical frameworks, as well as through encouraging quality investments, in order to guarantee the maximum benefit to our national economy."[445]

Elements of an AI roadmap are nested within the broader strategic digital and economic initiatives, including the Kingdom's Economic Vision 2030,[446] which addresses AI policy and development in the country[447]. The Digital Transformation Journey of the Kingdom focuses on fostering an innovation ecosystem for the use of emerging technologies for the benefit

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[442] Oxford Insights, *Government AI Readiness Index 2021* (Jan. 21, 2022), https://static1.squarespace.com/static/58b2e92c1e5b6c828058484e/t/61ead0752e7529590 e98d35f/1 642778757117/Government_AI_Readiness_21.pdf

[443] Al-Ammal. and Aljawder, *Strategy for Artificial Intelligence in Bahrain: Challenges and Opportunities, Artificial Intelligence in the Gulf*, edited by Azar and Haddad, Palgrave Macmillan (2021), pp. 47-76. https://link.springer.com/content/pdf/10.1007%2F978-981-16-0771-4.pdf

[444] Oxford Business Group. *King Hamad bin Isa Al Khalifa,* https://oxfordbusinessgroup.com/articles-interviews/eye-on-the-future-king-hamad-bin-isa-al-khalifa-on-modernisation-and-the-ongoing-transition-to-a-knowledge-based-economy-viewpoint

[445] Bahrain News Agency, *HM King Opens Second Session of 5th Legislative Term* (Oct 13, 2019), https://www.bna.bh/en/HMKingopenssecondsessionof5thLegislativeTerm.aspx?cms=q8F mFJgiscL2fwIzON1%2BDnPyGy%2FzC%2BrQlxqVtgB48bs%3D

[446] *The Economic Vision 2030 Bahrain* (2016), https://www.bahrain.bh/wps/wcm/connect/38f53f2f-9ad6-423d-9c96-2dbf17810c94/Vision%2B2030% 2BEnglish%2B%28low%2Bresolution%29.pdf?MOD=AJPERES

[447] Information & eGovernment Authority, *Emerging Technologies* (2022), https://www.iga.gov.bh/en/category/emerging-technologies

of the Bahraini society. The Kingdom *"encourages those involved in designing, developing, and deploying new technologies to ensure that they are consistent with the Kingdom's values and adhere to international norms and standards."*[448]

The Digital Transformation Journey engages key government entities across multiple sectors, such as the Bahrain Economic Development Board (EDB) - which sets the goals and policies for Vision 2030- and the Information and eGovernment Authority (IGA) - which implements digital transformation under the supervision of the ICT Government Committee (ICTGC).[449] Tamkeen, the Bahrain Labor Fund, supports the private sector through strategies for enterprise growth and workforce development, and by leveraging AI in the higher education sector. Other actors are the Bahrain Information Technology Society and AI Society, which act as a medium for civil society, under license of government regulators.[450]

This vision for a modernized and digital economy in the public and private sector helped shape Bahrain's Digital Government Strategy 2022, to digitize and transform public services and increase digital usage in the country. The strategy is part of the Government of Bahrain's Government Action Plan 2019-2022, under the supervision of the Supreme Council for Information & Communication Technology (SCICT) led by the Deputy Prime Minister. The digital initiatives are under the coordination of the National ICT Governance Committee (ICTGC).[451]

The Digital Government Strategy 2022 promotes principles of inclusion, increased digitization, design considerations, data analysis and

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[448] Bahrain's National Portal, *Government of Bahrain's Digital Transformation Journey* (Jan. 16, 2022), https://www.bahrain.bh/wps/portal/!ut/p/a1/pZLLbsIwEEV_JSyyDJ7E5EF3KaK0iEcFpSXeICcYJyixQ2_____Kg_H0NqFIrlUJV78Y6d3zvjBFBc0QE3WWcqkwKmh9r4i0ex-DZTuD0AzzDEI69zqTdBbsHrgairwBg3

[449] Information & eGovernment Authority, *Consultancy* (2022), https://www.iga.gov.bh/en/category/consultancy

[450] Al-Ammal and Aljawder, *Strategy for Artificial Intelligence in Bahrain: Challenges and Opportunities, Artificial Intelligence in the Gulf*, edited by Azar and Haddad (2021), pp. 47-76. https://link.springer.com/content/pdf/10.1007%2F978-981-16-0771-4.pdf

[451] Bahrain's National Portal, *Committees contributing to the development of ICT and digital transformation in the Kingdom of Bahrain* (Nov. 24, 2021), https://www.bahrain.bh/wps/portal/!ut/p/a0/hcrBCoJAEADQr_E8systdpQIw4tQRNteZJFBNnVGaxI_X_qCjg8eBPAQOK6pj5qE4_hzcO2lQWdsYesiv-dYNu50PZ7RVHiAGzHU_5KHZ3otSyghdMJKm4KnXtZZ3hrHljjDL1u0JsNOpimpEn1gHqrHDivtAQk!/

transparency, and has five focus areas for including artificial intelligence:

- Strengthening digital infrastructure, reinforcement of the cloud based working environment, data, and artificial intelligence to fostering AI for the digital economy
- Accelerating the transformation and collaboration efforts of various public sector entities
- Ensuring the enforcement of policies, regulations and standards by safeguarding constituents' basic rights and protecting them against cyber risks
- Strengthening accountability, transparency and civic engagement through open data and e-Participation
- Encouraging innovation & nurturing entrepreneurship.

In February 2022, Bahrain announced the 2022-2026 Telecommunications, ICT and Digital Economy Sector Strategy in line with the country Economic Recovery Plan, and the Digital Government Strategy 2022. The Minister of Transportation and Telecommunications, Kamal bin Ahmed Mohammed, explained that the strategy aims "to increase the efficiency of government services through e-transformation, digitizing documents, moving to e-payments, and expanding the use of AI, while strengthening public private partnerships."[452] Performance indicators set for evaluation of the implementation by 2026, include the increase of start-ups by 20%, automation of 200 government services, increase in the sector by 35% and training 20,000 on cybersecurity. The government of Bahrain has aligned the ICT digital strategy to the UN Sustainable Development Goals, the Government Action Plan and the Economic Vision 2030[453]

Bahrain is one of the first countries, along with the United Kingdom, to pilot test the World Economic Forum (WEF) AI procurement guidelines for the public sector.[454] The guidelines aim to "enable governments to

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[452] Sovereign Group News, _Bahrain launches Telecommunications, ICT and Digital Economy Strategy_
  (Feb. 25, 2022) https://www.sovereigngroup.com/news/news-and-views/bahrain-launches-telecommunications-ict-and-digital-economy-sector-strategy/
[453] Bahrain's National Portal, _Government of Bahrain's Digital Transformation Journey_ (Jan. 16, 2022), https://www.bahrain.bh/wps/portal/digitaltransformatonjourney
[454] World Economic Forum, _Unlocking Public Sector AI_ (Jun. 2020), https://www.business-standard.com/article/news-ani/bahrain-and-uk-first-in-the-world-to-pilot-new-artificial-intelligence-procurement-guidelines-across-government-119070401389_1.html

responsibly and sustainably deploy AI technology,"[455] and "set government use and adoption of AI on a better path."[456] The guidelines have the potential to enhance explainability and accountability in the AI systems before acquiring and deploying these solutions, at the stage of writing proposal requests.[457] Under the leadership of the Bahrain Economic Development Board (EDB), the adoption of the framework was in line with the country's "reputation as the Middle East's testbed thanks to its innovative regulatory framework, strong technology ecosystem and rapid shift to e-government."[458] To date there are no reports about the progress of the pilot in Bahrain.

Public Participation

Since 2016, Bahrain has been very active in promoting and developing public participation in relation to its digital services and technology. This has consistently involved a theme of strong encouragement of citizens and users to primarily engage with the government via digital means and social media. Bahrain's eGov Strategy 2016, included a digitized National Suggestions and Complaints System, an open data platform, and continued encouragement of uptake of eGovernment services. In 2018, the strategy directly prioritized objectives including 'Nurturing active participation and engagement with constituents.'[17]

In 2021, the Personal Data Protection Authority called a public consultation on the implementation of at least six draft regulations to complement the Personal Data Protection Law (PDPL).[459] The consultation

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[455] CIPS, *Bahrain to pilot AI procurement guidelines* (July 9, 2019), https://www.cips.org/supply-management/news/2019/july/bahrain-to-pilot-ai-procurement-guidelines/

[456] World Economic Forum, *AI Government Procurement Guidelines* (2019), https://www.weforum.org/whitepapers/ai-government-procurement-guidelines

[457] EDB Bahrain, *Bahrain and UK first in the world to pilot new artificial intelligence procurement guidelines across government* (Jul. 3, 2019), https://www.bahrainedb.com/latest-news/bahrain-and-uk-first-in-the-world-to-pilot-new-artificial-intelligence-procurement-guidelines-across-government#:~:text=Bahrain%20and%20UK%20first%20in,across%20government%20%2D%20Invest%20in%20Bahrain

[458] CIPS, *Bahrain to pilot AI procurement guidelines* (Jul. 9, 2019), https://www.cips.org/supply-management/news/2019/july/bahrain-to-pilot-ai-procurement-guidelines/

[459] Bahrain News Agency, *Consultation on implementing Bahrain's Personal Data Protection Law launched online* (Jun. 14, 2021), https://www.bna.bh/en/ConsultationonimplementingBahrainsPersonalDataProtectionLa

resulted in the enactment of ten ministerial resolutions in March 2022 to align the PDPL to international standards and the GDPR.

In 2022, within the Digital Government Strategy 2022, the government developed the "Leave No One Behind" digital policy to focus on citizen needs, underpinned by the Digital First principle.[460] This principle prioritizes the design of public services digitally first, to encourage citizens voicing their concerns and opinions via portals such as Tawasul. The design should promote the supply of data from citizens and corporations only once to a government entity, and the pooling of government data for greater public accessibility and civic engagement, which supports Bahrain's Digital Identities initiative.

Public participation in Bahrain focuses on deriving feedback from users on how to run services more efficiently and effectively. However, despite these efforts, outcomes and findings from participatory action are not always publicly available.

Data Protection

Bahrain has led the region in the enactment of legislation aligned to the highest global standards. The Kingdom was the second State in the Gulf Region, following Qatar to address personal data protection as a right, with the enactment of Law No. (30) of 2018 with Respect to Personal Data Protection Law (PDPL).[461] The Royal Decree No (78) of 2019 established the Personal Data Protection Authority (PDPA),[462] and granted the Minister of Justice, Islamic Affairs and Waqf the chair of the Board of Directors of the PDPA.[463] The PDPA has the responsibility to enforce the law and investigate potential violations.[464]

The PDPL is inspired by the EU GDPR and entered into effect in August of 2019. The Law protects the rights of individuals, regarding the collection, processing and storage of their personal data (whether by automatic or manual means), and establishes obligations to data controllers

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ne.aspx?cms=q8FmFJgiscL2fwIzON1%2BDhLTzyak%2BXqL0ckS1SQmlDM%3D

[460] Kingdom of Bahrain, *Digital-First Principle* (2022),
https://www.bahrain.bh/new/en/digitalfirst_en.html

[461] Personal Data Protection Authority, *The Law* (2018),
http://www.pdp.gov.bh/en/assets/pdf/regulations.pdf

[462] Personal Data Protection Authority, *Royal Decree No. 78* (2022),
http://www.pdp.gov.bh/en/royal-decree.html

[463] Personal Data Protection Authority, *Overview,* (2022),
http://www.pdp.gov.bh/en/about-PDPA.html

[464] Akin Gump, *Bahrain Ministry of Justice to Act as Data Protection Authority* (Oct. 15, 2019), https://www.mondaq.com/data-protection/857510/bahrain-ministry-of-justice-to-act-as-data-protection- authority

or data processors in their relationship with data owners or subjects.[465]

The PDPL shares similarities with the GDPR,[466] in the rights to notification of data collection and processing by data controllers to data subjects, right to erasure and right of rectification, but differs in some specifics: The treatment of the right to be informed (Article 18); the right to object to processing of personal data (Articles 19, 20, and 21). The exceptions in the right not to be subject to decision-making based on solely automated means (Article 22), the absence of the right to data portability; and the shorter period of response to data subjects' request (15 days vs one month in the GDPR) are important differences.

Unlike the GDPR, the PDPL mandates data managers to recognize the right of Bahraini data owners to object to personal data which causes harm or distress to the data owner or any persons. Prior written approval from the Personal Data Protection Authority is mandatory before processing certain personal data. Article 58 defines criminal and civil penalties for violations including prison, in specified cases, in contrast with GDPR where only monetary penalties are defined.

The Kingdom of Bahrain started a cycle of public consultations on the implementation of the PDPL which ended in June 2021. [467] The consultations aimed to address initial concerns around ambiguity of the implementation of the law, the actual procedure for notice of data processing and how to apply for written authorization.[468] The topics under consultation related to the Draft Regulations on at least six documents: [469] "Data Subject Rights Regulation", the "Data Record Regulation", the "Complaints Regulation", the "Adequate Protection Regulation", and the "Guardian Regulation". Notably, the consultations included the plans for "Technical and Organizational Measures Regulation" with obligations for

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[465] DLA Piper, *Bahrain Publishes Personal Data Protection Law* (Sep. 17, 2018), https://www.dlapiper.com/en/qatar/insights/publications/2018/09/bahrain-publishes-personal-data-prot ection-law/

[466] Securiti, *Bahrain's PDPL vs. GDPR* (2023), https://securiti.ai/bahrains-pdpl-vs-gdpr/

[467] Bahrain News Agency, *Consultation on implementing Bahrain's Personal Data Protection Law launched online* (Jun. 14, 2021), https://www.bna.bh/en/ConsultationonimplementingBahrainsPersonalDataProtectionLa wlaunchedonli ne.aspx?cms=q8FmFJgiscL2fwIzON1%2BDhLTzyak%2BXqL0ckS1SQmlDM%3D

[468] Akin Gump, *Bahrain Ministry of Justice to Act as Data Protection Authority* (Oct. 15, 2019), https://www.mondaq.com/data-protection/857510/bahrain-ministry-of-justice-to-act-as-data-protection- authority

[469] DataGuidance, *Ministry invites entities and individuals to consult on data protection implementing regulations* (Jun. 29, 2021), https://www.dataguidance.com/news/bahrain-ministry-invites-entities-and-individuals

a Data Protection Impact Assessment (DPIA), a Vulnerability Assessment and Penetration Testing (VAPT) and an Incident and Risk Response Plan.[470]

Terms and language such as transparency, and accountability are mentioned briefly, as well as human rights and freedoms.

Other laws in Bahrain which provide general rights to privacy including digital privacy are:

1) Article 26 of the Kingdom's constitution, which safeguards confidentiality of postal, telegraphic, telephonic or electronic communication.[471]

2) Law No. 16 on Electronic Transactions, Law No. 48 on Telecommunications, Law No. 60 on Information Technology Crimes, and Law No. 16 on Protection of State Information and Documents.[472]

3) Previous laws related to data protection which complement PDPL also include the Central Bank of Bahrain and Financial Institutions Law 2006, and Labour Law 2012 which regulates data protection between employees and employers.[473]

4) In 2009, Bahrain drafted a law on the right to access of information, but this was postponed indefinitely.[474]

5) In January 2017, Bahrain also ratified the Arab Treaty on Combating Cybercrime, in order to establish new rules on retaining user data and real-time monitoring of activities.

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[470] OneTrust DataGuidance, *Ministry invites entities and individuals to consult on data protection implementing regulations* (Jun. 29, 2021),https://www.dataguidance.com/news/bahrain-ministry-invites-entities-and-individuals

[471] Constitute Project, *Bahrain's Constitution of 2002 with Amendments through 2017* (Aug. 26, 2021), https://www.constituteproject.org/constitution/Bahrain_2017.pdf?lang=en

[472] Council of Europe, *Bahrain* (May 28, 2020), https://www.coe.int/en/web/octopus/country-wiki-ap/-/asset_publisher/CmDb7M4RGb4Z/content/bahr ain/pop_up?_101_INSTANCE_CmDb7M4RGb4Z_viewMode=print&_101_INSTANCE _CmDb7M4RG b4Z_languageId=en_GB

[473] OneTrust DataGuidance, *Bahrain Data Protection Overview* (Aug, 2021), https://www.dataguidance.com/notes/bahrain-data-protection-overview

[474] Bahrain Center for Human Rights, *Bahrain Has Yet to Enact Access to Information Law* (Sep. 28, 2021), https://bahrainrights.net/?p=136325

Bahrain is not listed as one of the members of the Global Privacy Assembly.[475] Bahrain has neither sponsored nor taken part in the 2018 GPA Resolution on AI and Ethics, [476] the 2020 GPA Resolution on AI and Accountability[477] or the 2022 GPA Resolution on AI and Accountability. [478]

Algorithmic Transparency

Bahrain has not enacted algorithmic transparency laws. The PDPL in Article 15, requires permission from the Authority before the automated processing of personal data of sensitive nature, biometric data, genetic data, linking data to two or more data controllers for different purposes. Article 22 includes the right to object to decisions based solely on automated processing for purposes of assessing performance at work, financial standing, credit scoring, reliability or conduct. Yet the PDPL does not include provisions to ensure transparency in the methods of processing.

In September 2022, Bahrain together with other member states of the Digital Cooperation Organization (DCO) adopted the Riyadh AI Call for Action Declaration (RAICA), launched during the Global AI Summit of 2022.[479] This Declaration is a commitment to develop AI technology that benefit people, communities and nations. Item 4 of the Call for Action addresses the establishment of safeguards to prevent unfairness of algorithms against individuals due to their orientation, culture, gender or race.

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[475] Global Privacy Assembly, *List of Accredited Members*, https://globalprivacyassembly.org/participation-in-the-assembly/list-of-accredited-members/.

[476] International Conference of Data Protection & Privacy Commissioners, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[477] Global Privacy Assembly (GPA), *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[478] Global Privacy Assembly (GPA), *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct 2022) https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[479] WIRED, *The Key wins of Saudi Arabia's Global AI Summit* (Sep 27, 2021), https://wired.me/technology/saudi-arabia-global-ai-summit/

Digitization

Bahrain stands for with its e-government and smart city plans. In November 2021, Bahrain launched an ambitious Economic Recovery Plan to propel growth post-COVID-19, through an investment of more than $30 billion in national infrastructure and strategic priority sectors.[480] Government entities have plans for the use of AI by the National Space Science Agency in agriculture[481], by the Supreme Judicial Council in the courtroom,[482] in research, through the University of Bahrain in labs for AI and advanced computing for applications in industry. The Kingdom has taken steps to build Smart cities, establish Smart traffic control, smart cooling systems, Smart banking.[483]

The Governmental Digital Journey issued on September 2022, focuses on modern technologies and AI in the development of government services, leveraged by digital infrastructure and data.[484]

In cooperation with UNDP Bahrain, the country developed a comprehensive plan and roadmap of implementation of the sustainable Digital economy by 2025. A range of AI related initiatives and policies related to emerging technologies included:

- A cloud-first policy approach for the public sector during procurement processes.
- AI and Robotics use in banking, retail and financial services, supported by the government agencies such as Tamkeen.
- The creation of the region's first national data repository, encompassing 73 government bodies for predictive analytics to improve public service and data access, including a partnership with AWS for a 'Big Data Hub'. Internet of Things (IoT) initiatives are also being developed with agencies including the National Space Science Agency (NSSA), the Ministry of Transportation and Telecommunication, the Ministry of Works,

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[480] Zawya, *New four-year strategy for Bahrain digital economy outlined* (Jan 13, 2022), https://www.zawya.com/en/business/new-four-year-strategy-for-bahrain-digital-economy-outlined-nwxa95in

[481] National Space Science Agency, *About 257 thousand palm trees in Bahrain and the Western regions are on top,* (Feb 27, 2021), https://www.sjc.bh/page_016.php?pID=760

[482] Supreme Judicial Council, *Courts 4.0 International Conference for Artificial Intelligence in Judiciary,* (n.d.), https://www.sjc.bh/page_016.php?pID=760

[483] Kingdom of Bahrain National Portal, *Artificial Intelligence & Smart Cities* (2023), bahrain.bh/new/en/techtelespace-ai_en.html

[484] *Government of Bahrain's Digital Journey*, https://www.bahrain.bh/wps/portal/!ut/p/a1/pZLLbsIwEEV_JSyyDJ7E5EF3KaK0iEcFpSXeICcYJyixQ2_Kg_H0NqFIrlUJV78Y6d3zvjBFBc0QE3WWcqkwKmh9r4i0ex-DZTuD0AzzDEI69zqTdBbsHrgairwBg3

Municipalities Affairs, and Urban Planning, and the Economic Development Board. Partnership of the Government of Bahrain with Amazon Web Services to establish Big Data centers.[485]

Mass Surveillance

Amnesty International reported about an ongoing investigation on the use of Pegasus Spyware to infect the devices of three political activists in Bahrain in 2021.[486] The misuse of the spyware provided Israeli NSO Group, to trace mobile phones, targeted at least 50,000 devices of journalists and human rights activists. According to Citizen Lab, Bahrain authorities used cyber surveillance since 2013, including phone forensics technology sold by Israeli company, Cellebrite, to extract private data from devices of arrested activists.[487]

The Carnegie Endowment for Peace report on AI surveillance, found that Bahrain is using facial recognition for smart policing, mainly from Chinese technology providers, such as Dahua.[488] Reports of use of surveillance cameras in public spaces, surfaced. In September 2022, the OHCHR reiterated concerns about surveillance of individuals and groups cooperating with the United Nations.[489] The Ministry of Interior has issued statements warning about legal procedures against activists and their followers who incur in cybercrime on social media.[490]

The Bahrain e-government authority released the "BeAwareBahrain" app to "ensure the safety of all its citizens and

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[485] Kingdom of Bahrain, *Digital-First Principle*
(2022),
https://www.bahrain.bh/new/en/digitalfirst_en.htm
l

[486] Amnesty International, *Bahrain: Devices of three activists hacked with Pegasus spyware* (Feb 18, 2022), https://www.amnesty.org/en/latest/news/2022/02/bahrain-devices-of-three-activists-hacked-with-pegasus-spyware/

[487] The Citizen Lab, *From Pearl to Pegasus. Bahraini Government Hacks Activists with NSO Group Zero-Click iPhone Exploits* (Aug. 24, 2021),
https://citizenlab.ca/2021/08/bahrain-hacks-activists-with-nso-group-zero-click-iphone-exploits/

[488] Carnegie Endowment for International Peace, *The Global Expansion of AI Surveillance* (Sept. 2019), https://carnegieendowment.org/files/WP-Feldstein-AISurveillance_final1.pdf

[489] OHCHR, *Report details disturbing trends as reprisals continue against people cooperating with the UN* (Sept. 29 2022), https://www.ohchr.org/en/press-releases/2022/09/report-details-disturbing-trends-reprisals-continue-against-people.

[490] Ministry of Interior of Bahrain, *Anti Cyber Crime message on Twitter* (May 21, 2019), https://twitter.com/moi_bahrain/status/1130802153663213568

residents;"[491] The app alerted individuals in case of close contact with a confirmed case of COVID-19 and was able to confirm the location of people who had moved more than 15 meter distance from their phone. A report by Amnesty International in 2020 of 11 countries using data tracing apps for COVID-19, concluded that the BeAwareBahrain app was among "the most alarming tools (…) carrying out live or near-live tracking of users' locations by frequently uploading GPS coordinates to a central server."[492] The surveillance activities included the real-time broadcast of users' locations to a government database, the publication of online sensitive information linked to their national ID, and the enforced use of a Bluetooth bracelet during quarantine.

Biometric Identification

Bahrain has integrated biometrics and digital IDs as part of the Digital First Policy. The use of a nationwide digital identity scheme to include Sijilat (the Commercial Registration Portal), the National Taxation System, and Sehati (the National Social Health Insurance Program), aims to facilitate users access to government services through one-time input into the sytem.[493] Users can visit a Government Service Center if they lack internet access.

Bahrain introduced biometric identification for automated border control in Bahrain International Airport (BIA) in 2019, as part of the Airport Modernization Programme (AMP).[494] In July 2022, Bahrain joined the Global Entry Partnership, the U.S. Customs and Border Protection (CBP) program for expedited entry into the U.S. for pre-approved, low-risk travelers. The program makes use of facial recognition and travelers can make use of biometric kiosks at airports to process

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[491] Ministry of Health, *BeAwareBahrain* (2023),
https://healthalert.gov.bh/en/category/beaware-bahrain-app
[492] Amnesty International, *Bahrain Kuwait and Norway contact tracing apps among most dangerous for privacy* (Jun. 16, 2020),
https://www.amnesty.org/en/latest/news/2020/06/bahrain-kuwait-norway-contact-tracing-apps-danger-for-privacy/
[493] Kingdom of Bahrain, *Digital-First Principle*
(2022),
https://www.bahrain.bh/new/en/digitalfirst_en.htm
l
[494] Security World Market, *Bahrain enhances border control with biometric identification* (June 6, 2019),
https://www.securityworldmarket.com/me/Newsarchive/bahrain-enhances-border-control-with-biometric-identification1

them.[495]

Tamkeen (Labour Fund), Bahrain's government agency promoting private-sector business and individual development, launched digital onboarding using biometric identification to register customers. Tamkeen uses B2B payment integrated with BENEFIT Pay.[496] BenefitPay is a financial network established in 1997 under license of the Central Bank of Bahrain.[497] Benefit uses facial recognition for validation and authentication of users, recognizing all all GCC IDs and passports of all nationalities. The service is available for Fin Tech firms, insurance, investment companies to curtail cybercrime.[498]

Lethal Autonomous Weapon Systems

Bahrain is a High Contracting party to the Convention on Certain Conventional Weapons' (CCW) Protocol III, IV and V.[499] Bahrain, is one of the 12 Arab states parties to the CCW, which in 2020 called "for a new treaty to prohibit and restrict lethal autonomous weapons systems (…) and (…) the importance of maintaining human control over the critical functions of weapons,"[500] which prohibits the use of weapons that are considered injurious or indiscriminate such as landmines and booby traps.

Bahrain, as part of the Non-Aligned Movement (NAM), expressed its position against lethal autonomous weapons systems during the UN General Assembly of 2015, due to its "moral, humanitarian, and legal challenges for the international community."[501] In a statement, presented during the Group of Governmental Experts on Emerging Technologies in

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[495] Frank Hersey, *Bahrain latest addition to US biometric global entry partnership,* BiometricUpdate (Jul. 18, 2022), https://www.biometricupdate.com/202207/bahrain-latest-addition-to-us-biometric-global-entry-partnership.

[496] *Government of Bahrain's Digital Transformation Journey*, https://www.bahrain.bh/wps/portal/!ut/p/a1/pZLLbsIwEEV_JSyyDJ7E5EF3KaK0iEcFpS XeICcYJyixQ2 Kg_H0NqFIrlUJV78Y6d3zvjBFBc0QE3WWcqkwKmh9r4i0ex-DZTuD0AzzDEI69zqTdBbsHrgairwBg3

[497] Benefit, *The pulse of Bahrain* (2023), https://benefit.bh/

[498] News of Bahrain, *BENEFIT Holds identification and verification service workshops* (Jul .25, 2022), https://www.newsofbahrain.com/business/82774.html

[499] United Nations, *High Contracting Signatories, Convention on Certain Conventional Weapons,* https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/high-contracting-parties-and-signatories-ccw/

[500] Stop Killer Robots, *Diplomatic talks re-convene* (Sept. 25, 2020), https://www.stopkillerrobots.org/news/diplomatic2020/

[501] Non-Aligned Movement, *Convention on Prohibitions or Restrictions on the use of Certain Conventional Weapons which may be deemed to be excessively injurious or to have indiscriminate effects (CCW),* (Jul. 2022), https://documents.unoda.org/wp-content/uploads/2022/08/WP-NAM.pdf

the Area of Lethal Autonomous Weapons Systems Meeting in Geneva in 2022, the NAM called for the negotiation of a "legally binding international instrument stipulating prohibitions and regulations on lethal autonomous weapons systems."

Human Rights

Bahrain is not a signatory of the Universal Declaration of Human Rights,[502] but became member of the World Human Rights Council in 2019.[503] The Prime Minister of the Country has expressed the importance of the UDHR in public statements.[504] The country has completed four cycles of Universal Periodic Reviews, with the last one in November 2022.[505] The UPR of Bahrain noted the recommendations of various States for Bahrain to ratify international human rights covenants. The country made a voluntary pledge and commitment to implement projects of the national human rights plan (102 projects), for 2022-2026 and to submit voluntary reports every two years on the ongoing efforts to enhance the country's human right system.[506]

Bahrain is one of the 16 State Parties to the Arab Charter on Human Rights,[507] and has ratified the International Covenant on Civil and Political Rights. (ICCPR) and the International Covenant on Economic, Social and cultural Rights (ICESCR).[508]

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[502] OHCHR, *Human rights by Country,*
https://www.ohchr.org/en/countries/menaregion/pages/kwindex.aspx
[503] Ministry of Foreign Affairs, *About Human Rights*,
https://www.mofa.gov.bh/AboutBahrain/HumanRights/tabid/135/language/en-US/Default.aspx
[504] Bahrain News Agency, *HRH Prime Minister highlights Universal Declaration of Human Rights* (Dec 8, 2018),
https://www.bna.bh/en/ConstitutionalCourttoconsiderConstitutionalCase1/HRHPrimeMinisterhighlightsUniversalDeclarationofHumanRights.aspx?cms=q8FmFJgiscL2fwIzON1%2BDktmz32o3rvQb7QWjpEbQ0M%3D
[505] United Nations Human Rights Council, *Universal Periodic Review, Bahrain* (2023),
https://www.ohchr.org/en/hr-bodies/upr/bh-index
[506] United Nations Human Rights Council, *Report of the Working Group on the Universal Periodic Review. Bahrain,* (Jan. 11, 2023), https://www.upr-info.org/sites/default/files/country-document/2023-02/a_hrc_wg.41_BAH_E.pdf
[507] League of Arab States, *The Arab Charter for Human Rights* (2004),
http://www.lasportal.org/ar/legalnetwork/Pages/agreements_details.aspx?RID=69
[508] Ministry of Foreign Affairs, *About Human Rights*
https://www.mofa.gov.bh/AboutBahrain/HumanRights/tabid/135/language/en-US/Default.aspx

The Freedom House rated Bahrain as "Not Free" (12/100) in 2022.[509] Restrictions to freedom of expression and beliefs, the use of spyware and surveillance technology to target activists and dissidents, are areas of concern. The Transparency International's 2022 Corruption Perception Index ranks Bahrain in 69th place out of 180 countries with a score of 44/100, signifying some level of corruption.[510]

In a report of 2019, the UN High Commissioner for Human Rights (OHCHR) urged Bahrain to align counter-terrorism and counter-extremism legislation to the international human rights standards.[511]

OECD AI Principles / G20 AI Guidelines

Bahrain is not a member of the OECD and has not endorsed the OECD AI Principles.[512] Bahrain has not submitted reports to the OECD AI Policy Observatory in relation to ongoing policies, strategies or activities associated with AI.[513]

Bahrain is a member of the MENA-OECD Initiative on Governance and Competitiveness created in 2021 to implement reforms to improve governance structures and cooperation, while not specifically related to AI.[514]

UNESCO Recommendations on the Ethics of Artificial Intelligence

Bahrain is a UNESCO member since 1972[515] and is one of the 193 member States which endorsed the Recommendation on the Ethics of AI.[516] The Kingdom and UNESCO cooperated in the establishment of the King Hamad Bin Isa Al-Khalifa Prize for the use of ICT in Education,

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[509] Freedom House, *Freedom in the World, Bahrain 2022,* https://freedomhouse.org/country/bahrain/freedom-world/2022

[510] Transparency International, *Corruption Perceptions Index* (2022) https://www.transparency.org/en/cpi/2022/index/kwt

[511] Human Rights Watch, *World Report 2021: Bahrain*, https://www.hrw.org/world-report/2021/country-chapters/bahrain

[512] OECD, *Recommendation of the Council on Artificial Intelligence*, OECD/LEGAL/0449, (May 22, 2019), https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449

[513] OECD.AI, *Country Dashboards and Data,* (2023), https://oecd.ai/en/

[514] OECD, *MENA-OECD Initiative. Governance & Competitiveness Development*, 2021 Ministerial Conference. https://www.oecd.org/fr/sites/mena/Ministerial-Declaration-2021.pdf

[515] UNESCO, *Member States, Bahrain*, https://www.unesco.org/en/countries/bh

[516] UNESCO, *UNESCO Member States Adopt the First Ever Global Agreement On the Ethics Of Artificial Intelligence* (Nov. 25, 2021), https://en.unesco.org/news/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence

since 2005.[517] However, no reports exist about how Bahrain is implementing the UNESCO recommendations.

Evaluation

Bahrain's Economic Vision 2030, Digital Government Strategy 2022 and Digital Economy Sector Strategy 2022-2026 frame the efforts of the Kingdom to provide a roadmap and KPIs for the governance of AI. The formulation of a National AI Strategy is a necessary next step in Bahrain's pathway to responsible and trustworthy innovation, provided that Bahrain takes the drafting of the Strategy as an opportunity to implement the UNESCO Recommendation on the Ethics of AI.

The participation of multiple governmental agencies advancing the digitalization and AI plans is a strength in the pathway to governing AI. Building on the experience of the public consultation for the Personal Data Protection Law (PDPL) in 2021, Bahrain has the potential to establish a formalized system for public consultation in AI policy to ensure the adoption of explainable, trustworthy and fair AI.

In terms of data protection and independent oversight, the alignment of the Bahrain's Personal Data Protection Law (PDPL) to GDPR, and the draft regulations for Data protection impact assessments (DPIA) are positive steps, which can be enhanced by the adoption of algorithmic transparency and the creation of an independent data and AI supervisory authority.

Although it has signed the Arab Charter on Human Rights, Bahrain stands as a 'not free' country in relation to human rights protections and freedom. The country is not a signatory of the Universal Declaration of Human Rights and concerns exist with regard to the use of AI for mass surveillance purposes.

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[517] UNESCO, *UNESCO King Hamad Bin Isa Al-Khalifa Prize for the Use of ICT in Education: 2019 Laureates*, https://unesdoc.unesco.org/ark:/48223/pf0000373477?posInSet=5&queryId=84896d88-79b6-4a07-92a4-82a6352fa98d

Bangladesh

National AI Strategy

Bangladesh published its National Strategy on Artificial Intelligence in March 2020.[518] The goal is to make Bangladesh a "technologically advanced nation by the next decade." The National AI Strategy for Bangladesh is driven by the slogan "AI for Innovative Bangladesh." The AI Strategy identified seven national priority sectors, which are:

1) public service delivery
2) manufacturing
3) agriculture
4) smart mobility and transportation
5) skill & education
6) finance & trade
7) health

To create a "sustainable AI Ecosystem," the report proposes six strategic pillars, namely:

1) research and development,
2) skilling and reskilling of AI workforce
3) data and digital infrastructure
4) ethics, data privacy, security & regulations
5) funding and accelerating AI startups
6) industrialization for AI technologies

Each pillar consists of a strategic brief, a roadmap, action plan, related stakeholders and lead ministries. Finally, a summary roadmap in the report includes steps for the development of AI over the next five years.

Under Strategy 4 of the AI national roadmap: "Ethics, Data Privacy, Security & Regulations," the Bangladeshi government will create a new set of AI ethics guidelines to address issues such as fairness, safety, cybersecurity, and transparency. By 2023-2024, its ICT Division and

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[518] Information and Communication Technology Division Government of the People's Republic of Bangladesh, _National Strategy for Artificial Intelligence Bangladesh_ (March, 2020), https://ictd.portal.gov.bd/sites/default/files/files/ictd.portal.gov.bd/policies/e57f1366_a62c_4d1a_8369_a9d3bc156cd5/National%20Strategy%20for%20Artificial%20Intellgence%20-%20Bangladesh%20.pdf .

Ministry of Law, Justice and Parliamentary Affairs intend to formulate RTE (Right To Explanation) Guideline For AI Algorithm.[519]

Public Participation

The National AI Strategy of Bangladesh identified engagement with media and civil societies for creating a "robust ethics, data privacy, security and regulations guideline" for emerging technologies.[520] In March 2020, as part of its National Internet of Things (IoT) Strategy, the Bangladesh government proposed to establish "an Advisory Committee including representatives from Government, industry, academia and community" to provide ongoing guidance in the emerging areas of IoT.[521]

Data Protection

Although the Constitution of Bangladesh does not explicitly grant the fundamental right to privacy, Article 43 of the Constitution recognises this right under certain restrictions and states that, "every citizen shall have the right, subject to any reasonable restrictions imposed by law in the interests of the security of the State, public order, public morality or public health – (a) to be secured in his home against entry, search and seizure; and b) to the privacy of his correspondence and other means of communication."[522]

Bangladesh has proposed a draft Data Protection Act, 2022.[523] "The proposed Data Protection Act, 2022 and the Bangladesh Telecommunication Regulatory Commission Regulation for Digital, social

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[519] *National Strategy for Artificial Intelligence Bangladesh,* pp. 40-41 (2021), https://ictd.portal.gov.bd/sites/default/files/files/ictd.portal.gov.bd/policies/e57f1366_a62 c_4d1a_8369_a9d3bc156cd5/National%20Strategy%20for%20Artificial%20Intellgence %20-%20Bangladesh%20.pdf.

[520] *National Strategy for Artificial Intelligence Bangladesh,* pp. 40-41 (2021), https://ictd.portal.gov.bd/sites/default/files/files/ictd.portal.gov.bd/policies/e57f1366_a62 c_4d1a_8369_a9d3bc156cd5/National%20Strategy%20for%20Artificial%20Intellgence %20-%20Bangladesh%20.pdf.

[521] *National Strategy for Artificial Intelligence Bangladesh,* p. 11 (2021), https://bcc.portal.gov.bd/sites/default/files/files/bcc.portal.gov.bd/page/bdb0a706_e674_4 a40_a8a8_7cfccf7e9d9b//2020-10-19-15-04-9807d52e24da56e66f7ec89f7eb540ec.pdf .

[522] Silvee, Sadiya S. and Hasan, Sabrina and Hasan, Sabrina, *The Right to Privacy in Bangladesh in the Context of Technological Advancement*, International and Comparative Law Journal 1(2), (Dec. 8, 2018), https://ssrn.com/abstract=3298069 or http://dx.doi.org/10.2139/ssrn.3298069.

[523] Information and Communication Technology Division Government of the People's Republic of Bangladesh**,** *The Proposed Data Protection Act 2022* (July.16, 2022), https://ictd.portal.gov.bd/sites/default/files/files/ictd.portal.gov.bd/page/6c9773a2_7556_ 4395_bbec_f132b9d819f0/Data%20Protection%20Bill%20en%20V13%20Unofficial%2 0Working%20Draft%2016.07.22.pdf.

media and OTT Platforms, 2021 attempt to protect citizen information against American tech companies, but both draft regulations grant Bangladesh authorities powers to control everything on the Bangladeshi internet."[524] The purpose of this law is to provide security for personal data. The law does not provide for a definition of personal data.[525] The proposed data protection law mandates storage of citizen data within Bangladesh. "The localization of the data within Bangladesh gives authorities broad powers to access people's personal data without judicial oversight and accountability for any violation of people's right to privacy," wrote Amnesty International[526] in feedback to the proposed bill.

The Telecommunications Act (2000) is a law "for the purpose of development and efficient regulation of telecommunication systems and telecommunication services in Bangladesh."[527] Under Section 67 (b) of the Act no person can "intercept any radio communication or telecommunication nor shall utilise or divulge the intercepted communication, unless the originator of the communication or the person to whom the originator intends to send it has consented to or approved the interception or divulgence." Under Section 97 of the Act, the government may ask the telecommunication operator to maintain records relating to the communications of a specific user under the broad definition of National Security and Public Interest.

The Information Communication Technology Act (2006) imposes responsibility on any individual or body corporate handling personal or sensitive data and requires them to maintain and implement reasonable security practices for this.[528] Section 46 of the Act states that the state can intercept, monitor or decrypt data if it is in the interest of:

1) "the sovereignty, integrity, or security of the state;
2) friendly relations with foreign states;

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[524] Nilesh Christopher, *Bangladesh's new data protection law grants more power to the state than its people, Rest of world* (Aug. 24, 2022) https://restofworld.org/2022/newsletter-south-asia-bangladeshs-data-protection-law/.

[525] Harisur Rohoman, *Data Protection Act 2022: More questions than answers, Dhaka Tribune* (Oct.16, 2022), https://www.dhakatribune.com/op-ed/2022/10/17/data-protection-act-2022-more-questions-than-answers.

[526] Amnesty International, *Bangladesh: New data protection bill threatens people's right to privacy* (Apr. 27, 2022) https://www.amnesty.org/en/latest/news/2022/04/bangladesh-new-data-protection-bill-threatens-peoples-right-to-privacy/

[527] Bangladesh Telecommunication Regulatory Commission, *The Bangladesh Telecommunications Act 2001*, http://old.btrc.gov.bd/sites/default/files/telecommunication_act_english_2001.pdf .

[528] Bangladesh Computer Council, *ICT Act 2006*, https://bcc.portal.gov.bd/site/page/8a843dba-4055-49af-83f5-58b5669c770d/-

3) public order;
4) for preventing incitement to the commission of any cognisable offence relating to the above;
5) for investigation of any offence.".

The Digital Security Act came into force in full on 8 October 2018 and pertains to "offences committed through digital devices."[529] Section 26 of the Act provides for "punishment for unauthorised collection, use etc. of identity information." Under the Digital Security Act two entities have been formed: the National Data Security Council (NDSC) and the Digital Security Agency (DSA) "to carry out the purposes of the Act." The NDSC under Section 13 of the Act "shall provide necessary direction and advice to the Agency" and the DSA shall have the power to "remove or block some data-information." In order to do so, the DSA will have a Digital Forensic Lab and an Emergency Response Team to: (a) "ensure the emergency security of the critical information infrastructure; (b) take immediate necessary measures for remedy if there is any cyber or digital attack and if the cyber or digital security is affected; (c) take necessary initiatives to prevent probable and imminent cyber or digital attack; (d) take overall co-operational initiatives, including exchange of information with any similar type of foreign team or organisation, for carrying out the purposes of this Act, with the prior approval of the Government; (e) do such other acts as may be prescribed by rules."

Algorithmic Transparency

While there is no public declaration of adapting the Human Rights framework for AI policy in Bangladesh as of 2021, its government acknowledged the lack of transparency of machine learning. The national AI strategy explicitly stated[530] that:

1) The EU General Data Protection Regulation (GDPR) can be a good solution to the challenge on rules about who will be responsible for an unwanted inversion.
2) There should be a rule of 'right to get an explanation' in each and every process.
3) The impacts AI will bring to human physiology, dignity and autonomy is a core challenge.
4) A strong legal and ethical framework on how AI would be implemented in applications is a must.

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[529] Bangladesh e-Government Computer Incident Response Team, *Digital Security Act 2020*, https://www.cirt.gov.bd/wp-content/uploads/2020/02/Digital-Security-Act-2020.pdf.
[530] Ibid., pp. 47-48.

5) AI ethics should be righteous, fundamentally sound, assessable, reversible and inclusive.

Biometric Identification

Since 2008, the Election Commission of Bangladesh has issued a National Identity Card (NID) which is compulsory for every Bangladeshi citizen above the age of 18 for voting and for availing 22 types of services, including banking, taxpayer identity number (TIN), driving licence and passport. In 2016, the government started issuing a machine readable "smart NID card" with a chip that can store encrypted data such as biometric and identification data for enhancing security and reducing forgery.[531]

Lethal Autonomous Weapons

Bangladesh expressed its support for multilateral talks on lethal autonomous weapons systems at the UN General Assembly in October 2016.[532] The country participated for the first time in the Convention on Certain Conventional Weapons (CCW)[533] meetings on lethal autonomous weapons systems in 2019, but did not make any statements.

Human Rights

In 2022, Freedom House report ranked Bangladesh as "partly free" with a score of 39/100 for political and civil rights.[534] The report states that, "the ruling Awami League (AL) has consolidated political power through sustained harassment of the opposition and those perceived to be allied with it, as well as of critical media and voices in civil society. Corruption is a serious problem, and anticorruption efforts have been weakened by politicised enforcement. Due process guarantees are poorly upheld and

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[531] Mizan Rahman, *Bangladesh launches smart national ID cards*, Gulf Times (Oct. 16, 2016), https://web.archive.org/web/20180517001739/http://www.gulf-times.com/story/515953/Bangladesh-launches-smart-national-ID-cards.

[532] Human Rights Watch, Mary Wareham, *Human Rights Watch, Stopping Killer Robots: Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control, Human Rights Watch* (Apr. 2021), https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and#_ftn34

[533] United Nations, *Statement under Thematic Discussion on "Conventional Weapons" in the First Committee of the 71st Session of the UN General Assembly*, (21 Oct. 2016), https://www.un.org/disarmament/wp-content/uploads/2016/10/21-Oct-Bangladesh-CW.pdf

[534] Freedom House, *Freedom in the World 2022 – Bangladesh,* https://freedomhouse.org/country/bangladesh/freedom-world/2022

security forces carry out a range of human right abuses with near impunity."
[535]

The authorities of Bangladesh "imprisoned 433 people under the Digital Security Act, the majority of whom were held on allegations of publishing "false or offensive information" under Section 25."[536] Under this law, any kind of criticism of the ruling government would be considered an act of spreading false information. This represented a "21% year-on-year increase in the number of people detained under the Act. As of 11 July, the longest-serving prisoner detained under the Act had been held since 24 December 2018. Section 25 (publication of false or offensive information), Section 29 (publication of defamatory information) and Section 31 (offence and punishment for deteriorating law and order) of the Act were used systematically to target and harass dissenting voices, including those of journalists, activists and human rights defenders. The actions contravened Bangladesh's commitments under the ICCPR as well as its domestic constitutional obligations." [537] Bangladesh authorities also arrested a 15-year-old for "defaming" Prime Minister Sheikh Hasina Wazed in a Facebook post.[538]

OECD / G20 AI Principles
Bangladesh has not endorsed OECD AI principles.

UNESCO recommendation on the Ethics of Artificial Intelligence
Bangladesh has endorsed the UNESCO Recommendation on the Ethics of Artificial Intelligence.[539] It remains to be seen how Bangladesh will implement the UNESCO Recommendation in practice.

Evaluation
Bangladesh has set out a national strategy for AI that recognizes the importance of AI ethics and endorsed the UNESCO Recommendation on the Ethics of AI. Although Bangladesh does not have a comprehensive data protection law, there is support in the national AI strategy for a GDPR-style law and also for an explicit right of explanation. In view of the country low

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[535]Freedom House, *Freedom in the World 2021 2022 – Bangladesh*, https://freedomhouse.org/country/bangladesh/freedom-world/2022
[536] Amnesty International, *Universal Periodic Review of Bangladesh*, (Sept., 2021), https://www.ohchr.org/sites/default/files/2021-11/AI_Bangladesh.pdf
[537]Ibid, p. 2.
[538] Human Rights Watch Dispatch, *Bangladesh Arrests Teenage Child for Criticising Prime Minister*, (June 25, 2020), https://www.hrw.org/news/2020/06/26/bangladesh-arrests-teenage-child-criticizing-prime-minister.
[539] UNESCO, R*ecommendation on the Ethics* of Artificial *Intelligence* (Nov. 23, 2021), https://unesdoc.unesco.org/ark:/48223/pf0000381137

credentials with regard to human rights protection, concerns exist with Bangladesh's extensive programme of biometric identification.

Belgium

National AI Strategy

In October 2022, the Council of Ministers of the Belgian Federal Government approved a National Convergence Plan for the development of artificial intelligence. The plan aims to foster AI development while emphasizing that "fundamental rights, such as privacy and non-discrimination, are protected and that new technologies should be developed within an appropriate ethical and legal framework."[540] The Plan aims to reduce the fragmentation of Belgian Regional AI strategies by establishing nine common objectives: (1)Promoting trustworthy AI; (2) Guaranteeing cybersecurity; (3) Strengthening the competitiveness and the attractiveness of Belgium through AI; (4) Developing a data-driven economy and a high-performance infrastructure; (5) Centralizing AI in healthcare; (6) Using AI for sustainable mobility; (7) Protecting the environment; (8) Providing better and life-long learning opportunities; (9) Offering citizens better service and protection.

The Convergence Plan also includes the establishment of a Governing Board to execute and coordinate it.[541] The Convergence Plan explicitly refers to the need for transparency in AI design; preventing biased outcomes; assessing the societal impact of AI; ensuring system robustness and safety; and promoting diversity. It also advocates for AI that contributes to "the protection of fundamental rights, democracy, and the rule of law" and sees more representative and responsible data use as the key to prevent discrimination against women, minorities, the elderly, and other groups. In addition, the Convergence Plan envisions Belgium's "active participation in the development of norms, standards, and recommendations in international fora" and argues for clear rules on "accuracy, transparency, accountability, explainability, and equality."[542]

Belgium is a federal state. It has three regions as well as three communities, all of which have their own government, and many of which have also developed strategies and initiatives on digitalization or AI. "The

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[540] News.belgium.be, *Nationaal convergentieplan voor de ontwikkeling van artificiële intelligentie* (Oct. 2022), https://news.belgium.be/nl/nationaal-convergentieplan-voor-de-ontwikkeling-van-artificiele-intelligentie
[541] News.belgium.be, *Nationaal convergentieplan voor de ontwikkeling van artificiële intelligentie* (Oct. 2022), https://news.belgium.be/nl/nationaal-convergentieplan-voor-de-ontwikkeling-van-artificiele-intelligentie
[542] Michel.belgium.be, *Nationaal convergentieplan voor de ontwikkeling van artificiële intelligentie* (Oct. 2022),
https://michel.belgium.be/sites/default/files/articles/Plan%20AI%20%28NL%29-compressed.pdf

Flemish Community, the French Community and the German-speaking Community are divided according to language and culture. They are responsible for language, culture, education, audiovisual media, and individual assistance such as specific parts of health policy and social welfare. The regions (the Flemish Region, the Brussels Capital Region and the Walloon Region) are divided based on territory."[543] They are responsible for the economy, employment, housing, public works, energy transportation, environmental and spatial planning and have some things to say concerning international affairs. The Federal Government is responsible for foreign affairs, defense, justice, finance, social security, healthcare and internal affairs.[544]

The Flemish Region released the *Vlaanderen Radicaal Digitaal*, in 2019, which was renewed as the *Vlaanderen Radicaal Digitaal II* in 2021. This regional digital strategy aims to foster digital public services, data processing, and automation in the public sector.[545] In 2019 as well, the Flemish government approved the Flemish policy plan on AI. It focuses specifically on algorithmic transparency, privacy, explainability, and human-centered, safe, sustainable, and trustworthy AI.[546] The plan also envisions the allocation of 5 million euros to initiatives related to AI ethics and education.[547] In 2022, the Flemish government adopted a new strategy for data governance, which also comprises initiatives for ethical data use, privacy, transparency, and AI analytics for the public sector.[548]

The Walloon government published the Digital Wallonia 2019-2024 strategy "based on values including a cross-disciplinary approach,

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[543] Belgium.be, Belgian Federal Government, *Belgium, a federal state*, https://www.belgium.be/en/about_belgium/government/federale_staat

[544] Belgium.be, Belgian Federal Government, *Belgium, a federal state*, https://www.belgium.be/en/about_belgium/government/federale_staat

[545] Digitaal Vlaanderen, *Vlaanderen Radicaal Digitaal II*, https://www.vlaanderen.be/uw-overheid/werking-en-structuur/hoe-werkt-de-vlaamse-overheid/informatie-en-communicatie/vlaanderen-radicaal-digitaal-ii

[546] De Vlaamse minister van Werk, Economie, Innovatie en Sport, *QUATERNOTA AAN DE VLAAMSE REGERING. Betreft: Vlaams Beleidsplan Artificiële Intelligentie* (2019), https://www.ewi-vlaanderen.be/sites/default/files/quaternota_aan_de_vlaamse_regering_-_vlaams_beleidsplan_artificiele_intelligentie.pdf

[547] Flanders: Department for Economy, Science and Innovation, *Vlaams actieplan Artificiële Intelligentie gelanceerd* (Mar. 22, 2019), https://www.ewi-vlaanderen.be/nieuws/vlaams-actieplan-artificiele-intelligentie-gelanceerd

[548] Digitaal Vlaanderen, *Actieplan 2022: Vlaamse Datastrategie* (Feb. 2022), https://assets.vlaanderen.be/image/upload/v1647860110/Actieplan_2022_Vlaamse_datastrategie_finaal_oldfro.pdf

transparency, coherence, openness and flexibility."[549] In 2019, the Walloon government also launched the regional strategy "DigitalWallonia4.ai". It aims to accelerate the development of the Walloon AI ecosystem and "sustainably include Wallonia in national and European AI initiatives in order to build a foundation of trust around transparent, ethical and responsible AI."[550]

In 2022, the Brussels Capital Region started a pilot project with the FARI Institute, a non-profit initiative led by Vrije Universiteit Brussel and Université Libre de Bruxelles, to develop an AI strategy for the region.[551] In January 2023, FARI published the outcomes of its 2022 Conference on AI, Data and Robotics in Cities. It included some recommendations from the Observer Committee for the Brussels Capital Region such as raising AI awareness and literacy; governing with various stakeholders, including citizens; determining AI-related responsibilities; collaborating on multi- and interdisciplinary levels; (responsibly) enabling data flows; reusing and readapting the existing AI guidelines, principles, and regulations. [552]

The adoption of the 2022 Convergence Plan was also preceded by several initiatives at national and European level.

In 2019, the Information Report on the necessary cooperation between the Federal State and the federated entities regarding the impact, opportunities, possibilities and risks of the digital "smart society" was released by a working group created by the Belgian Senate that has been meeting since 2018.[553] Their findings and recommendations are grouped in six chapters: governance, ethics and human rights, and legislation; economy, labour market and taxation; education and training; attention economy: impact on people; privacy and cybersecurity; research and

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[549] Digitalwallonia.be, *Digital Wallonia 2019-2024* (June 2018),
https://www.digitalwallonia.be/en/posts/digital-wallonia-2019-2024
[550] Digitalwallonia.be, *DigitalWallonia4.ai : artificial intelligence at the service of citizens and companies in Wallonia* (Apr. 2019),
https://www.digitalwallonia.be/en/posts/digitalwallonia4-ai-artificial-intelligence-at-the-service-of-citizens-and-companies-in-wallonia/
[551] FARI, *AI Strategy for the Brussels Region* (Sept. 2022),
https://www.fari.brussels/research-and-innovation/project/ai-strategy-for-the-brussels-region
[552] FARI, Brussels Conference 2022: Summary and Recommendations, *What can the Brussel Capital Region do to foster responsible AI?* (Jan. 2023),
https://issuu.com/faribrussels/docs/en.fari_conference_summary_2022
[553] Sénat de Belgique, *Rapport d'information relatif à la nécessaire collaboration entre l'État fédéral et les entités fédérées en ce qui concerne les retombées, les opportunités, les potentialités et les risques de la « société intelligente » numérique*, (Mar. 2019),
https://www.senate.be/www/webdriver?MItabObj=pdf&MIcolObj=pdf&MInamObj=pdfid&MItypeObj=application/pdf&MIvalObj=100664119

development. The report states that "[t]he development and use of artificial intelligence shall be based on the following guiding principles: prudence, vigilance, loyalty, reliability, justification and transparency, accountability, limited autonomy, humanity, human integrity, and balancing of individual and collective interests". "Fundamental rights, in particular human dignity and freedom, and privacy, must be the basis and starting point for all actions and legislation in the field of artificial intelligence."[554]

In October 2020, the Belgian government, along with thirteen other EU Member States, published a position paper on innovative and trustworthy AI. This paper sets out two visions for the EU's development of AI: (1) promoting innovation, while managing risks through a clear framework and (2) establishing trustworthy AI as a competitive advantage. The countries call for a borderless single market for AI in the EU. They state that "[t]he main aim must be to create a common framework where trustworthy and human-centric AI goes hand in hand with innovation, economic growth, and competitiveness in order to protect our society, maintain our high-quality public service, and benefit our citizens and businesses. This can help the EU to protect and empower its citizens, stimulate innovation and progress in society, and ensure its values are protected."[555]

Public Opinion

A 2019 opinion survey by AI4Belgium examined the public perception of AI, its perceived impact, and the role the government should play in AI implementation.[556] According to the survey, 76% of the respondents hold a positive attitude towards technological developments, while only 6% hold a negative attitude. Most respondents were worried about the loss of privacy, security and integrity of their personal information (85%), less use of human common sense (85%), less human interaction

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[554] Sénat de Belgique, *Rapport d'information relatif à la nécessaire collaboration entre l'État fédéral et les entités fédérées en ce qui concerne les retombées, les opportunités, les potentialités et les risques de la « société intelligente » numérique*, (Mar. 2019), https://www.senate.be/www/webdriver?MItabObj=pdf&MIcolObj=pdf&MInamObj=pdfi d&MItypeObj=application/pdf&MIvalObj=100664119

[555] *Non-paper - Innovative and trustworthy AI: two sides of the same coin, Position paper on behalf of Denmark, Belgium, the Czech Republic, Finland, France, Estonia, Ireland, Latvia, Luxembourg, the Netherlands, Poland, Portugal, Spain and Sweden on innovative and trustworthy AI* (2020), https://www.permanentrepresentations.nl/documents/publications/2020/10/8/non-paper---innovative-and-trustworthy-ai

[556] AI4Belgium, *Perceptie Artificiële Intelligentie* (Feb. 2019), https://www.ai4belgium.be/wp-content/uploads/2019/04/enquete_en.pdf

(83%) and the loss of trust and control over robots and artificial intelligence (77%).

When asked which activity to prioritize, the highest priority concerned "the management of ethical risks around AI. For example, discrimination, privacy, etc." (74%). This was followed by "supporting employees and employers in the transition to AI in the workplace" (65%); "improving public service through AI" (58%); "supporting research and development (R & D) and innovation in the field of AI" (52%); "facilitating and supporting enterprise access to AI technologies" (48%); and "supporting start-ups engaged in AI" (45%). The majority of citizens suspect that AI will increase inequality between highly educated and low- or unskilled people (66%) and between persons with a privileged background and persons without one (60%).

Data Protection

Since Belgium is an EU Member State, the General Data Protection Regulation (GDPR) is directly applicable in Belgium. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[557]

Taking stock of the GDPR, the Belgium Privacy Commission was reformed in 2018.[558] It is now called the Belgian Data Protection Authority (DPA) and aims to ensure compliance with the GDPR.[559] It has direct sanctioning powers as well as extended enforcement capabilities.

In March 2022, the DPA expressed concern over the Belgian draft legislation on amending the Act of 3 December 2017 establishing the Data Protection Authority. In particular, the DPA mentioned that the draft law jeopardizes its efficiency and independence. [560] The draft legislation

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[557] European Commission, *Data protection in the EU*,
https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en
[558] Hunton Andrews Kurth, *Belgium Adopts Law Reforming the Belgian Privacy Commission* (Jan. 18, 2018), https://www.huntonprivacyblog.com/2018/01/18/belgium-adopts-law-reforming-belgian-privacy-commission/
[559] PWC Legal, *The new Belgian Data Protection Authority: who's who and how will it work* (Jan. 23, 2019), https://www.pwclegal.be/en/news/the-new-belgian-data-protection-authority---whos-who-and-how-wil.html
[560] Belgian Data Protection Authority, *A new draft law threatens the independence and functioning of the BE DPA* (Mar. 8, 2022),
https://www.dataprotectionauthority.be/citizen/a-new-draft-law-threatens-the-independence-and-functioning-of-the-be-dpa

introduces parliamentary interference regarding the DPA internal organization and the setting its priorities. The European Data Protection Board expressed similar concerns in its letter of April 2022 in support of the Belgian DPA.[561] As of January 2023, there is no further progress regarding this legislative amendment.

Regarding the activities of law enforcement authorities, Belgium transposed[562] the EU Data Protection Law Enforcement Directive (LED).[563] "The directive protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[564] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[565] The LED also requires for Member States, including Belgium, to enable data subjects to exercise their rights via national data protection authorities.[566]

Following the transposition of the EU Law Enforcement Directive in Belgian law, the Supervisory Body for Police Information, "the oversight body which looks at how the police use information (COC) was reformed to function as an independent data protection body." [567] It is intended to oversee how the police use data.[568]

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[561] European Data Protection Board letter (Apr. 6, 2022). https://edpb.europa.eu/system/files/2022-04/edpb_letter_out_2022-0022_belgian_draft_legislation_en.pdf

[562] *Act on the protection of natural persons with regard to the processing of personal data* (July 30, 2018), https://www.dataprotectionauthority.be/publications/act-of-30-july-2018.pdf

[563] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[564] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[565] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[566] Article 17 of the LED.

[567] Algorithm Watch, *Automating Society Report 2020: Belgium* (2020), https://automatingsociety.algorithmwatch.org/report2020/belgium/

[568] Supervisory Body for Police Information, https://www.controleorgaan.be/en/

Both the DPA and the COC are members of the Global Privacy Assembly (GPA). The DPA co-sponsored the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence[569] but endorsed neither the 2020 Resolution on Accountability in the Development and Use of Artificial Intelligence[570] nor the 2022 GPA Resolution on Facial Recognition Technology.[571] The COC endorsed none of these resolutions.

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Belgium is also a member of the Council of Europe and ratified the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[572]

In 2019, a national human rights institution, the Federal Institute for the Protection and Promotion of Human Rights, was established. Its main goal is to facilitate cooperation between the existing human rights oversight mechanisms and fill the gaps in the existing landscape.[573] More specifically, it "ensures that the use of new technologies and the digitalisation of society contribute to strengthening our rights rather than limiting them."[574]

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[569] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[570] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[571] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology (Oct. 2022)*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[572] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[573] European Networks of National Human Rights Institutions, *ENNHRI welcomes new law adopted on National Human Rights Institution in Belgium* (May 9, 2019), http://ennhri.org/news-and-blog/ennhri-welcomes-new-law-adopted-on-national-human-rights-institution-in-belgium/

[574] Federal Institute for the Protection and Promotion of Human Rights, *What does FIRM/IFDH do?*, https://www.federalinstitutehumanrights.be/en/uw-rechten/themes/technology-digitalisation-and-human-rights

Algorithmic Transparency

Belgium is subject to the GDPR and Convention 108+. Belgians have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[575]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[576] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[577]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment,

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[575] See Recital 63 and Article 22 of the GDPR. Article 9 c) of the Convention 108+ as well as Recital 77, *Explanatory Report, Convention 108+*, p. 24, https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1

[576] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[577] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

including through the provision of easily accessible contact points and hotlines."[578]

In 2019, the Federal Institute for the Protection and Promotion of Human Rights issued its first opinion on the use of algorithms and artificial intelligence by the administration and argued in favor of more transparency from public authorities.[579]

In April 2021, Members of the Chamber of Representatives proposed a change to a 1994 law to make the use of algorithms by public administrations more transparent. Key points of the law are to "publish algorithmic processes online, specifically when used for individual decisions," to inform people of the algorithms used in making decisions on their cases, and to allow citizens to receive "comprehensible responses" to questions on algorithmic decisions.[580] The amendment has not passed yet.[581]

In the meantime, in January 2023, Brussels, in collaboration with eight other cities across Europe and with the help of Eurocities' Digital Forum, adopted an algorithm register, the Algorithmic Transparency Standard. It will be used by the data officer for the Brussels Capital region. The aim is to provide more information for residents with regard to the use of algorithm by municipalities and their impact. The register includes a range of information such as the type and purpose of an algorithm, the department using the algorithm, the geographical area and domain it relates to and a risk category. It also includes details on the data source and training data, any bias and mitigation, and human oversight. This initiative builds on similar algorithm registers launched in Amsterdam and Helsinki in September 2020.

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[578] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[579] Federal Institute for the Protection and Promotion of Human Rights, *L'IFDH demande plus de transparence sur l'utilisation des algorithmes par les autorités* (Oct. 7, 2021), https://www.federalinstitutehumanrights.be/en/nieuws/lifdh-demande-plus-de-transparence-sur-lutilisation-des-algorithmes-par-les-autorites

[580] Kenniscentrum Data & Maatschappij, *Federale overheid - Wetsvoorstel tot wijziging van de wet van 11 april 1994 betreffende de openbaarheid van bestuur, om meer transparantie te verschaffen over het gebruik van algoritmen door de overheid* (Apr. 2021), https://data-en-maatschappij.ai/beleidsmonitor/federale-overheid-wetsvoorstel-tot-wijziging-van-de-wet-van-11-april-1994-gebruik-van-algoritmen-door-de-overheid

[581] DeKamer.be, *Parlementair Document 55K1904, Wetsvoorstel tot wijziging van de wet van 11 april 1994 betreffende de openbaarheid van bestuur, om meer transparantie te verschaffen over het gebruik van algoritmen door de overheid* (2021), https://www.dekamer.be/kvvcr/showpage.cfm?section=/flwb&language=nl&cfm=/site/wwwcfm/flwb/flwbn.cfm?legislist=legisnr&dossierID=1904

According to André Sobczak, Secretary General, Eurocities, "[t]he efforts undertaken by these cities aim to set a standard for the transparent and ethical use of algorithms while their use is still in its relative infancy across city administrations in Europe. In this way, they seek to offer both a safeguard for people whose data may be used by algorithms, and have created a validated model that other cities can use straight away, without having to invest further resources themselves." [582]

Facial Recognition

The EDPB has issued guidelines on the use of facial recognition technologies in the area of law enforcement.[583] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[584]

According to AlgorithmWatch, facial recognition has been used at the Brussels Airport, football matches, for school registration and for healthcare. A "smart" video surveillance system is also in use to locate criminals, solve theft cases and collect statistical information.[585] AlgorithmWatch stressed that there is no legal framework governing this activity by the police.

The COC has criticized the use of facial recognition at the Brussels airport, stating that there is "too little information about the implementation and risks of the technology as there was no clear policy or data protection

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[582] Eurocities, *Nine cities set standards for the transparent use of Artificial Intelligence* (Jan. 23, 2023), https://eurocities.eu/latest/nine-cities-set-standards-for-the-transparent-use-of-artificial-intelligence/

[583] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

[584] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

[585] AlgorithmWatch, Automating Society 2020 (Oct. 2020), https://automatingsociety.algorithmwatch.org/report2020/belgium/

impact assessment conducted to come to a conclusion or offer advice." In a 2022 report, the COC reiterated "the lack of legal basis for the use of facial recognition technology by the Brussels airport police" and noted that it took "corrective action" in order to halt the pilot project.[586] The COC also reported that Belgian police had used the controversial facial recognition system Clearview AI without a legal basis and advised Belgian police to cease this activity."[587]

In January 2022, the Belgian Minister of Internal Affairs expressed the objective of "creating an ethical advisory board on safety that will evaluate the ethical and efficient use of technology and methods for investigation and intervention."[588] As of January 2023, there has been no further communication in this regard.

Regulatory sandboxes

In Belgium, the Flemish and Walloon regions have both developed regulatory sandboxes aimed at creating self-contained, low-regulation environments where software developers can experiment with innovative solutions without taking on significant risks. In Flanders, the Sandbox Flanders project is coordinated through the Flemish government agency for digitalization, Digital Flanders. Sandbox Flanders is designed to develop innovative solutions for the public sector by "matching" start-ups with government agencies and departments. The project also aims to be a "permanent marketplace" for ideas without a profit motive.[589] Many of the projects in question use AI systems to solve practical issues in particular "challenges," such as predicting exam enrollments and automated policy

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[586] Controleorgaan.be, *Advies betreffende een voorstel van resolutie over een driejarig moratorium op het gebruik van gezichtsherkenningssoftware en – algoritmen in vaste of mobiele beveiligingscamera's in openbare en privéplaatsen* (Jan. 2022), https://www.controleorgaan.be/files/DA210029_Advies_N.pdf

[587] Controleorgaan.be, *TOEZICHTRAPPORT VAN HET CONTROLEORGAAN OP DE POLITIONELE INFORMATIE MET BETREKKING TOT HET GEBRUIK VAN CLEARVIEW AI DOOR DE GEÏNTEGREERDE POLITIE* (Feb. 2022), https://www.controleorgaan.be/files/DIO21006_Toezichtrapport_Clearview_N_00050443.pdf

[588] Controleorgaan.be, *Advies betreffende een voorstel van resolutie over een driejarig moratorium op het gebruik van gezichtsherkenningssoftware en – algoritmen in vaste of mobiele beveiligingscamera's in openbare en privéplaatsen* (Jan. 2022), https://www.controleorgaan.be/files/DA210029_Advies_N.pdf

[589] Digitaal Vlaanderen, *Sandbox Vlaanderen: ruimte voor innovatie en experiment*, https://www.vlaanderen.be/digitaal-vlaanderen/onze-oplossingen/sandbox-vlaanderen-ruimte-voor-innovatie-en-experiment

impact assessments.[590] In the Walloon case, a private entity (LUDEBO) coordinates the sandbox ecosystem together with Digital Wallonia and the blockchain startup-collective Walchain, but the goal of this regulatory sandbox is only to foster blockchain technology development.[591]

Medical data

The use of AI in healthcare is one of the cornerstones of Belgium's AI strategy. An entire chapter of its national convergence plan is devoted to "centralizing AI in healthcare"[592] and the plan states that "the creation of a healthcare data agency reflects the importance and the necessity of facilitating the re-use of healthcare for research and innovation." The national strategy also emphasizes the "perspective of the user" in that it aims to stimulate human-centric use of AI in healthcare, while acknowledging the necessity of clear accountability rules, attention to data bias and privacy, and giving patients agency over their own data.[593]

Lethal Autonomous Weapons Systems

In 2018, the Belgian Parliament passed a "Resolution to prohibit use, by the Belgian Defense, of killer robots and armed drones."[594] In this resolution, the Parliament states that Belgium should:

1) Participate in international working groups within the framework of the United Nations and the Convention on Certain Conventional Weapons (CCW) in particular to work towards an internationally recognized definition of killer robots and to

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[590] Digitaal Vlaanderen, *Challenges Sandbox Vlaanderen,* https://www.vlaanderen.be/digitaal-vlaanderen/onze-oplossingen/sandbox-vlaanderen-ruimte-voor-innovatie-en-experiment/challenges-sandbox-vlaanderen

[591] Digitalwallonia.be, *Sandbox Wallonia (SBW)*, https://www.digitalwallonia.be/en/cartography/sandbox-wallonia/

[592] Michel.belgium.be, *Nationaal convergentieplan voor de ontwikkeling van artificiële intelligentie* (Oct. 2022), https://michel.belgium.be/sites/default/files/articles/Plan%20AI%20%28NL%29-compressed.pdf

[593] Michel.belgium.be, *Nationaal convergentieplan voor de ontwikkeling van artificiële intelligentie* (Oct. 2022), https://michel.belgium.be/sites/default/files/articles/Plan%20AI%20%28NL%29-compressed.pdf

[594] Chambre des représentants de Belgique [Belgian Chamber of Representatives], *Proposition de résolution relative à la création d'un agenda robonumérique inclusif et durable* [Proposal for a Resolution Regarding the Creation of an Inclusive and Sustainable Robo-Digital Agenda] (July 27, 2017), https://www.lachambre.be/doc/flwb/pdf/54/2643/54k2643001.pdf

determine which types of weapons will fall into this category in the future;

2) Advocate in international fora, together with like-minded countries, for a global ban on the use of killer robots and fully automated armed drones;

3) Ensure that the Belgian Defense never deploys killer robots in military operations; and

4) Support the development and use of robotic technology for civilian purposes.

A 2018 report indicated that Belgium "[does] not support negotiating new international law on fully autonomous weapons."[595] However, Belgium has recently taken a relatively central role in putting Lethal Autonomous Weapons Systems (LAWS) on the international agenda. In 2021, Belgium took on the chairmanship of the Group of Governmental Experts (GGE) on Lethal Autonomous Weapons Systems with the aim to "find consensus in relation to the clarification, consideration, and development of aspects of the normative and operational framework on emerging technologies in the area of LAWS."[596] In 2022, Belgium also signed a joint UN statement noting that the use of LAWS should be compliant with international law, emphasizing "the necessity for human beings to exert appropriate control, judgement and involvement" and calling for clear accountability rules.[597]

Belgium was one of the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International

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[595] Campaign to Stop Killer Robots, *Report on Activities. Convention on Conventional Weapons Group of Governmental Experts meeting on lethal autonomous weapons systems* (Apr. 2018), https://perma.cc/2M7K-SLGD

[596] Delegation of the European Union to the UN and other international organisations in Geneva, *EU lines to take: Group of Governmental Experts on emerging technologies in the area of Lethal Autonomous Weapons Systems* (Mar. 2022), https://www.eeas.europa.eu/eeas/eu-lines-take-group-governmental-experts-emerging-technologies-area-lethal-autonomous-weapons_en?s=62; Dig.watch, *GGE on lethal autonomous weapons systems*, https://dig.watch/processes/gge-laws

[597] unmeetings.org, *Joint Statement on Lethal Autonomous Weapons Systems: First Committee, 77th United Nations General Assembly. Thematic Debate – Conventional Weapons* (Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[598]

In February 2023, Belgium participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Belgium endorsed a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[599] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[600]

Human Rights

Belgium is a signatory to many international human rights treaties and conventions. In 2022, Belgium received a rating of 96/100 in the Freedom House Index. Freedom House reported that "Belgium is a stable electoral democracy with a long record of peaceful transfers of power.

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[598] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf
[599] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action
[600] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

Political rights and civil liberties are legally guaranteed and largely respected".[601]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[602]

OECD AI Principles

Belgium has endorsed the OECD/G20 AI Principles. In its 2021 survey, the OECD noted several examples of implementation of the AI Principles by Belgium, including the establishment of an AI Observatory, providing financial and non-financial support to retrain and attract top AI talent, development of an AI self-assessment tool, and the resolution to prohibit the use of lethal autonomous weapons by local armed forces.[603]

Belgium is a member of the Global Partnership for AI, a multi-stakeholder initiative which aims to foster international cooperation on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[604]

Belgium's 2022 national AI strategy covers all of the OECD AI principles: inclusive growth, sustainable development and well-being;

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[601] Freedom House, *Freedom in the World 2022 – Belgium*, https://freedomhouse.org/country/belgium/freedom-world/2022

[602] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[603] OECD, *State of Implementation of the OECD AI Principles: Insights from National AI Policies,* pp. 10, 14, 29, 30 (June 2021), https://www.oecd.org/digital/state-of-implementation-of-the-oecd-ai-principles-1cd40c44-en.htm

[604] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/.

human-centered values and fairness, transparency and explainability; robustness, security and safety; and accountability.[605] However, the strategy does not explicitly mention the OECD as the basis for its common objectives.[606]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Belgium is a signatory to the UNESCO Recommendation on the Ethics of Artificial Intelligence. However, Belgium's 2022 national strategy does not explicitly refer to the UNESCO Recommendation.[607]

Evaluation

In 2022, Belgium adopted a national AI strategy with a strong focus on AI ethics which should ensure coherence among the various regional AI strategies and federate them towards common objectives. Belgium's national and regional strategies are guided by values and principles that closely resemble those of the OECD AI principles. It remains to be seen how its endorsement of the UNESCO Recommendation on the Ethics of AI will translate in practice. Belgium's independent oversight bodies have curtailed the use of high-risk AI applications such as facial recognition systems. Concerns exist with regard to a draft legislation which would curtail the DPA's independence.

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[605] OECD, *OECD AI Principles overview*, https://oecd.ai/en/ai-principles
[606] Michel.belgium.be, *Nationaal convergentieplan voor de ontwikkeling van artificiële intelligentie* (Oct. 2022),
https://michel.belgium.be/sites/default/files/articles/Plan%20AI%20%28NL%29-compressed.pdf
[607] Michel.belgium.be, *Nationaal convergentieplan voor de ontwikkeling van artificiële intelligentie* (Oct. 2022),
https://michel.belgium.be/sites/default/files/articles/Plan%20AI%20%28NL%29-compressed.pdf

Brazil

National AI Strategy

      In September 2020, President Jair Bolsonaro declared before the United Nations General Assembly that Brazil is "open for the development of state-of-the-art technology and innovation efforts, such as 4.0 Industry, artificial intelligence, nanotechnology and 5G technology, with all partners who respect our sovereignty and cherish freedom and data protection".[608]

      In April 2021, following on the Digital Transformation Strategy (E-Digital),[609] the Brazilian government adopted a national AI strategy, "Estratégia Brasileira de Inteligência Artificial" (EBIA).[610] Its elaboration was delayed due to some changes in ministerial organization. The Ministry of Science, Technology, Information and Communications (MCTIC) was split into two: a Ministry of Science, Technology and Information (MCTI) and a Ministry of Communication (MCom). AI is now the responsibility of a broad Directorate on Science, and Digital Innovation (under the Secretary of Entrepreneurship and Innovation of MCTI).[611]

      The EBIA sets out six key objectives: develop ethical principles that guide responsible use of AI; remove barriers to innovation; improve collaboration between government, the private sector and researchers; develop AI skills; promote investment in technologies; and advance Brazilian technological innovation and involvement at the international level.[612]

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[608] President Jair Bolsonaro, *Remarks at the General Debate of the 75th Session of the United Nations General Assembly* (Sept. 22, 2020), https://www.gov.br/mre/en/content-centers/speeches-articles-and-interviews/president-of-the-federative-republic-of-brazil/speeches/remarks-by-president-jair-bolsonaro-at-the-general-debate-of-the-75th-session-of-the-united-nations-general-assembly-september-22-2020.

[609] The 2018 Estratégia Brasileira para a Transformação Digital (E-Digital) includes a specific action "to evaluate potential economic and social impact of (...) artificial intelligence and big data, and to propose policies that mitigate negative effects and maximize positive results". See OECD AI Policy Observatory, *Brazilian Strategy for Digital Transformation*, 2018, https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-24273.

[610] Government of Brazil, *Estratégia Brasileira para a Transformação Digital* (July 13, 2021), https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/transformacaodigital/arquivosinteligenciaartificial/ia_estrategia_portaria_mcti_4-979_2021_anexo1.pdf

[611] Ministério da Ciência, Tecnologia e Inovações, *Organization Chart*, https://www.gov.br/mcti/pt-br/imagens/organograma/sempi.pdf.

[612] Government of Brazil, *Estratégia Brasileira para a Transformação Digital*, pp. 3-4 (July 13, 2021), https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/transformacaodigital/arquivosinteligenciaartificial/ia_estrategia_portaria_mcti_4-979_2021_anexo1.pdf.

On May 12, 2022, the Governance Committee of the Brazilian AI Strategy published the Working Plan for EBIA for 2022.[613] The Governance Committee is composed of members from the public sector and government, companies and associations, NGOs and civil society, and centers for education and research.[614] The Working Plan mentions which actions will be prioritized within the scope of the EBIA for 2022. It is structured around 9 axes: (1) Legislation, regulation, and ethical use; (2) AI governance; (3) International aspects; (4) Qualifications for a digital future; (5) Workforce and training; (6) Research, development, innovation, and entrepreneurship; (7) Application in productive sectors; (8) Application in public power; (9) Public security.

The actions set forth in the Working Plan encompass: (1) Encouraging public agencies that will make use of AI for public security to submit data protection impact assessment prior to implementation; (2) Development of a framework with recommendations for an ethical AI, with mitigation of risks and biases; (3) Development of a dynamic repository of legislation and revision of regulatory model/sandboxes for active monitoring of the Bills in progress, with timely submission of multi-sectoral positioning; (4) Creation of an Artificial Intelligence observatory in Brazil, which can cooperate with other international observatories; (5) Preparation of an annual report with initiatives focused on international aspects; and (6) Expanding the offer of undergraduate and graduate courses related to Artificial Intelligence.

The Governance Committee of the Brazilian AI Strategy had two meetings in 2022. The first one, on February 9, discussed the revision of the Brazilian Strategy for Digital Transformation "Estratégia Brasileira para a Transformação Digital," to be conducted by MCTI. MCTI published the new Brazilian Strategy for Digital Transformation in November 2022.[615] The second meeting was on August 25, and had as its goal to evaluate the activities already conducted by the Committee and to plan the next steps.

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[613] Ministério da Ciência, Tecnologia e Inovações, *EBIA – Plano de Trabalho 2022*, https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/transformacaodigital/arquivosinteligenciaartificial/ebia-plano-de-trabalho-2022.pdf/view

[614] More Information about the Governance Committee of EBIA can be found at https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/transformacaodigital/inteligencia-artificial-estrategia-governanca.

[615] Ministério da Ciência, Tecnologia e Inovações, *Brazilian Strategy for Digital Transformation (E-Digital). Ciclo 2022-2026*, https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/transformacaodigital/arquivosestrategiadigital/e-digital_ciclo_2022-2026.pdf

Regarding the governance of the Brazilian AI strategy, Belli, Curzi and Gaspar,[616] analyzing the Committees' meetings from 2021, highlighted the lack of transparency with regard to the institutions taking part in the Governance Committee meetings as well as the criteria used to choose them, as they were invited by the MCTI to participate in the Committee. They also identified that, throughout the meetings, there was a constant majority of private sector associations compared to academia and civil society, which might result in biased results for the implementation of the EBIA.

AI Legislation

On September 29, 2021, the House of Representatives approved the draft Bill No. 21/2020 establishing the Legal Framework for Artificial Intelligence in Brazil (*Marco Legal da Inteligência Artificial*).[617] After approval in the House of Representatives, the draft Bill proceeded to the Federal Senate for joint analysis with two other legislative proposals: Bill No. 5051/2019 establishing the principles for the use of AI in Brazil and Bill No. 872/2021 providing for the ethical framework and guidelines that underline the development and use of AI in Brazil.

The aim of draft Bill No. 21/2020 is to create a legal framework for the development and use of AI by the government, companies, various entities and individuals.[618] AI agents, those who develop, deploy or use an AI system, will have a series of obligations, such as answering legally for decisions made by an artificial intelligence system and ensuring that the data used respects the Brazilian General Data Protection Law (LGPD).[619] The processing of personal data of customers and users of companies in both the public and private sector is covered.

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[616] Belli, Curzi and Gaspar, *AI regulation in Brazil: Advancements, flows, and need to learn from the data protection experience*, Computer Law & Security Review, (2023), p. 105767.

[617] Brazilian House of Representatives, *Câmara aprova projeto que regulamenta uso da inteligência artificial*, (Sept. 29, 2021), https://www.camara.leg.br/noticias/811702-camara-aprova-projeto-que-regulamenta-uso-da-inteligencia-artificial/

[618] Brazilian House of Representatives, *Projeto cria marco legal para uso de inteligência artificial no Brasil: Texto determina que a inteligência artificial deverá respeitar os direitos humanos e os valores democráticos* (Mar. 4, 2020), https://www.camara.leg.br/noticias/641927-projeto-cria-marco-legal-para-uso-de-inteligencia-artificial-no-brasil/

[619] Presidency of the Republic, Sub-General Secretariat for Legal Affairs, *General Law on Protection of Personal Data (LGPD)* (Aug. 14, 2020), http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2018/Lei/L13709.htm; Katitza Rodriguez and Veridiana Alimonti, *A Look-Back and Ahead on Data Protection in Latin America and Spain* (Sept. 21, 2020).

Academics and NGOs have criticized the draft Bill 21/2020, warning that the bill "may help perpetuate recent cases of algorithmic discrimination through provisions that hinder accountability for AI-induced errors and restrict the scope of the rights established in the LGPD and in the Brazilian Constitution."[620] According to them, the legislation favors a regime of subjective responsibility (requiring proof of a fault) which not only results in imposing the costs of developing AI applications on citizens – "in a patent inversion of the constitutional values" – but also does not establish the necessary incentives for the adoption of appropriate safeguards against the risks of AI.[621] The non-discrimination principle "merely mitigates the possibility of applying systems for illicit or abusive discriminatory purposes." As for the principle of neutrality, its "pursuit" creates no binding obligation. The Bill also "reduces the scope of application of the principle of non-discrimination in the LGPD, which prohibits personal data processing for illicit or abusive discriminatory purposes." The Brazilian AI Bill "gravely undermines the exercise of fundamental rights such as data protection, freedom of expression and equality."

In response to these criticisms, in March 2022, the Federal Senate appointed a temporary Commission of Jurists (*Comissão de Juristas*, "CJSUBIA") chaired by Justice Ricardo Villas Bôas Cueva from the Superior Court of Justice (*Superior Tribunal de Justiça*, STJ) and with renowned academic Laura Schertel Ferreira Mendes as the Rapporteur.[622] The Commission is responsible for analyzing the three draft AI bills and consolidate them in a proposal for a new Brazilian AI Act.

The work of the Commission of Jurists was developed in three stages. The first stage was the establishment of public participation mechanisms in order to ensure the participation of society and obtain technical and multidisciplinary contributions. The second phase consisted in conducting ordinary working meetings and an international seminar with legal AI experts across the world, such as such as Alessandro Mantelero, Marc Rotenberg, Mireille Hildebrandt, or Maria Paz Canales, with the aim

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[620] José Renato Laranjeira de Pereira and Thiago Guimarães Moraes, *Promoting irresponsible AI: lessons from a Brazilian bill*, Heinrich Böll Stiftung (Feb. 14, 2022, https://eu.boell.org/en/2022/02/14/promoting-irresponsible-ai-lessons-brazilian-bill.

[621] Change.org, *Open letter from jurists to the Federal Senate against article 6, item VI of PL 21-A/2020* (Carta aberta de juristas ao Senado Federal contra o artigo 6º, inciso VI do PL 21-A/2020), https://www.change.org/p/senado-federal-carta-aberta-de-juristas-ao-senado-federal-contra-o-artigo-6o-inciso-vi-do-pl-21-a-2020.

[622] More details about the Commission's work, statute and schedule are publicly available at https://legis.senado.leg.br/comissoes/comissao?codcol=2504.

to gather further feedbacks. The third phase was dedicated to the writing and consolidation of the inputs obtained for the elaboration of the proposal for a new Brazilian AI Act. In the third phase, 5 subgroups were created to develop the writing: 1. Concepts, fundamentals and principles (headed by Clara Iglesias Keller), 2. Rights and Governance Rules (headed by Miriam Wimmer), 3. Risk categorization and algorithmic impact assessment (headed by Bruno Bioni), 4. Measures to support innovation (headed by Mariana Valente, 5. Supervision and Oversight.[623]

The Commission of Jurists finalized its work on December 1, 2022,[624] and submitted it to the Federal Senate on December 6, 2022.[625] The proposal shall now be examined and voted on by the Brazilian Senate. The "explanatory statement" of the report stresses, "Therefore, this substitute bill is based on the premise that there is no trade-off – a mutually exclusive choice – between protection of fundamental rights and freedoms, appreciation of work and dignity of the human person in the face of the economic order and the creation of new value chains. (...) Its normative objective is to conciliate an approach based on risks with a regulatory model based on rights (...) weight of regulation is dynamically calibrated according to the potential risks of the technology application context. Were established, symmetrically to the rights, certain general measures and specific governance for, respectively, artificial intelligence systems with any degree of risk and for those categorized as high risk."

The proposal has 45 articles, divided into 9 chapters: 1) Preliminary provisions, 2) Rights, 3) Risk Categorization, 4) Governance of AI Systems, V) Civil Liability, VI) Codes of Good Practice and Governance, VII) Reporting Serious Incidents, VIII) Supervision and Enforcement, IX) Final Provisions. It has two different regulatory approaches. Overall, it is risk-based approach, imposing different obligations depending on the level of risk of the AI system. However, it also brings a rights-based approach, since there are rights recognized for all individuals affected by AI systems, regardless of their risk levels.

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[623] CJSUBIA. *001 – Regulamento Interno, Plano de Trabalho e Cronograma*, https://legis.senado.leg.br/comissoes/comissao?codcol=2504.

[624] Federal Senate, *Jurists Commission Approves Draft of the Legal Framework for Artificial Intelligence* (Dec. 1, 2022), https://www12.senado.leg.br/noticias/audios/2022/12/comissao-de-juristas-aprova-anteprojeto-do-marco-legal-da-inteligencia-artificial.

[625] Federal Senate, *Jurists Commission Concludes Text of the Legal Framework for Artificial Intelligence* (Dec. 6, 2022), https://www12.senado.leg.br/noticias/materias/2022/12/06/comissao-conclui-texto-sobre-regulacao-da-inteligencia-artificial-no-brasil.

The rights for all affected individuals include: right to prior information before interacting with AI systems, right to explanation, right to challenge decisions or predictions made by AI, right to human participation in decisions in AI systems, right to non-discrimination and right to privacy and protection of personal data.

Chapter 3 describes the risk categorization of AI systems. Prior to being placed on market or used in service every AI system will go through a preliminary evaluation, performed by the supplier of the AI system, to classify its degree of risk, according to the criteria set forth in the law. For high-risk artificial intelligence systems, it will be mandatory to conduct an algorithmic impact assessment, and its conclusions will be made public, with the protection of industrial and trade secrets when necessary. Artificial Intelligence systems classified as excessive risk are prohibited to be used or implemented, and there is a non-exhaustive list of such in the law. The law also proposes a regulation to restrict the use of remote biometric identification systems in public security.

A controversial theme since draft Bill No. 21/2020 was Civil Liability for damages caused by AI systems. The proposal defines that in the case of high risk or excessive risk of the AI systems, the supplier or operator is objectively liable for the damage caused. Otherwise, the liability will be presumed and there will be a reversal of the burden of proof in favor of the victim.

To enforce the new legislation the competent authority will be a body or entity of the Federal Government, still to be defined.

On August 11, 2021, the State of Ceará for its part adopted Law No. 17/611 establishing obligations and guidelines for the implementation and use of AI systems within the State.[626] This law establishes that AI systems must be designed in a safe way, based on ethics and in accordance with this Law and Brazilian laws more generally. It defines an AI system as computer science technologies that enable computers to interact with humans, through technological mechanisms that enable the simulation of human reasoning.

State Law No. 17/611 set some obligations for AI systems and the companies that develop them:

    (i)   establish secure mechanisms and algorithms, capable of protecting and ensuring the privacy and inviolability of users' data;

    (ii)   respect for human dignity and equal treatment for all users, non-discrimination;

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[626] Legislative Assembly of the State of Ceará, *Law No. 17.611 of 11 August 2021*, https://www2.al.ce.gov.br/legislativo/legislacao5/leis2021/17611.htm.

(iii)   enable users to have control over their personal data and how they are being used;

(iv)   ensure that the systems are always managed by humans, and submitted to them, and maintain human autonomy and supervision;

(v)   promote social well-being and not incite hatred and violence; and

(vi)   respect freedom of expression, as long as it does not contradict the previous items.

In addition, State Law No. 17/611 states that companies headquartered in the State of Ceará, or that have their artificial intelligence systems in use and operation in the State of Ceará, must be responsible for how their systems operate, being liable for any damages in accordance with the law.

Public Participation

The Ministry of Science, Technology, Innovations and Communications (MCTIC) organized an online public consultation between December 2019 and February 2020 to gather inputs for "a National Artificial Intelligence Strategy that allows to enhance the benefits of AI for the country, mitigating any negative impacts."[627] According to the terms of the public consultation, "the objective of the strategy is to solve concrete problems in the country, identifying priority areas in the development and use of AI-related technologies in which there is greater potential for obtaining benefits. It is envisaged that AI can bring gains in promoting competitiveness and increasing Brazilian productivity, in providing public services, in improving people's quality of life and in reducing social inequalities, among others."[628]

The consultation addressed thematic areas related to AI and focused on the government's role regarding the impact of AI technologies on society. Relevant documents to artificial intelligence were made available on the consultation website. The consultation collected about 1,000 contributions in total, which were taken into account for the development of the strategy proposal.[629]

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[627] Participate Brazil, Ministério da Ciência, Tecnologia, Inovações e Comunicações, *Brazilian Artificial Intelligence Strategy - Qualifications for a Digital Future,* http://participa.br/estrategia-brasileira-de-inteligencia-artificial/blog/apresentacao-e-instrucoes.
[628] Ibid.
[629] OECD AI Policy Observatory, *Policy Initiatives for Brazil,* https://oecd.ai/dashboards/policy-

Academics and NGOs have stated that the debate on Bill No. 21/2020 lacked public participation. According to José Renato Laranjeira de Pereira and Thiago Guimarães Moraes, "[t]he debate on the bill ignored the claims of experts and civil society organisations to address the high risks of the technology regarding fundamental rights. In contrast, Members of Congress delivered favorable speeches on the positive impacts of AI in society, especially as a tool for efficiency and innovation."[630]

As indicated above, the Federal Senate responded to these criticisms by establishing a Commission of Jurists to prepare a new consolidated proposal for a Brazilian AI Act, the preparation of which involved the establishment of public participation mechanisms. The Commission of Jurists initiated the organization of meetings, seminars, and public hearings divided into thematic axes, with the participation of experts and national and international representatives. 12 thematic panels were created and the Commission of Jurists received 102 statements from civil society entities, consolidated in the report submitted to the Federal Senate.[631]

Data Protection

In September 2020, Brazil's President signed the new Brazilian data protection law, *Lei Geral de Proteção de Dados Pessoais* (LGPD).[632] The LGPD is the first comprehensive data protection law in Brazil and mirrors

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initiatives?conceptUris=http:%2F%2Fkim.oecd.org%2FTaxonomy%2FGeographicalAreas%23Brazil.

[630] José Renato Laranjeira de Pereira and Thiago Guimarães Moraes, *Promoting irresponsible AI: lessons from a Brazilian bill*, Heinrich Böll Stiftung (Feb. 14, 2022), https://eu.boell.org/en/2022/02/14/promoting-irresponsible-ai-lessons-brazilian-bill.

[631] Federal Senate, *Jurists Commission Concludes Text of the Legal Framework for Artificial Intelligence* (Dec. 6, 2022), https://www12.senado.leg.br/noticias/materias/2022/12/06/comissao-conclui-texto-sobre-regulacao-da-inteligencia-artificial-no-brasil.

[632] Presidency of the Republic, Sub-General Secretariat for Legal Affairs, General Law on Protection of Personal Data (LGPD) (Aug. 14, 2020) http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2018/Lei/L13709.htm; Katitza Rodriguez, Veridiana Alimonti, *A Look-Back and Ahead on Data Protection in Latin America and Spain* (Sept. 21, 2020), https://www.eff.org/deeplinks/2020/09/look-back-and-ahead-data-protection-latin-america-and-spain.

the European Union's GDPR.[633] The LGPD is relevant to the processing of personal data in relation to AI applications.[634]

Seven principles underpin the protection of personal data in the LGPD: (1) respect for privacy; (2) informative self-determination; (3) freedom of expression, information, communication and opinion; (4) the inviolability of intimacy, honor and image; (5) economic and technological development and innovation; (6) free enterprise, free competition and consumer protection; and (7) human rights, the free development of personality, dignity and the exercise of citizenship by natural persons.

On February 10, 2022, the Brazilian Congress enacted Constitutional Amendment (EC) 115, which establishes personal data protection as a fundamental right in Brazil's 1988 Federal Constitution.[635] EC 115 also gives the Federal Government exclusive jurisdiction to legislate on personal data protection and processing.

The amendment establishes the competence of the highest court within Brazil's judiciary, the Federal Supreme Court (*Supremo Tribunal Federal*, STF), to adjudicate legal issues involving personal data. Previously, the STF had examined related cases based on other constitutional guarantees, such as the inviolability of intimacy and individuals' private life.

Brazil's alignment with international data protection trends is also reflected in EC 115. Personal data protection is recognized as a fundamental right by numerous other democratic states and international organizations, and, as an example, is established in Article 8 of the Charter of Fundamental Rights of the European Union.

Entities that process personal data in compliance with the Brazilian legislation are set to benefit from greater legal certainty with the passing of EC 115. By giving Brazil's federal government exclusive jurisdiction over data protection legislation, EC 115 prevents alternative, and possibly

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[633] Hogan Lovells Engage, *Brazil creates a Data Protection Authority* (Jan. 11, 2019), https://www.engage.hoganlovells.com/knowledgeservices/news/brazil-creates-a-data-protection-authority.

[634] Lexology, *An interview with Demarest Advogados discussing artificial intelligence in Brazil* (Nov. 27, 2020), https://www.lexology.com/library/detail.aspx?g=70705701-b4c6-4aa7-8a8a-344dd757f578.

[635] Federal Senate, *Constitutional Amendment on Protection of Personal Data Adopted* (10 Feb., 2022), https://www12.senado.leg.br/noticias/materias/2022/02/10/promulgada-emenda-constitucional-de-protecao-de-dados.

incompatible, regulations on the subject from being enacted at state or municipal level.[636]

AI Oversight

The LGPD establishes a national data protection authority in Brazil, *Autoridade Nacional de Proteção de Dados* (*ANPD*) as an agency of the federal government linked to the office of the President of Brazil.[637] The ANPD is guaranteed technical and decision-making autonomy,[638] and is given important attributions related to the LGPD interpretation, application and enforcement.[639]

Among other powers, the National Data Protection Authority (1) regulates the General Data Protection Law; (2) supervises compliance with personal data protection legislation, with a view to protecting the fundamental rights of freedom, privacy and the free development of the natural person's personality; (3) develops the guidelines of the National Data Protection Plan in order to protect the fundamental rights of freedom, privacy and the free development of the personality of the natural person; and (4) applies administrative sanctions.[640]

The ANPD is not a member of the Global Privacy Assembly (GPA). It has observer status since October 2021. The DPDC has not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial

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[636] Mattos Filho, *Personal data protection recognized as fundamental right in Brazil* (Feb. 10, 2022), https://www.mattosfilho.com.br/en/unico/protecao-dados-direito-fundamental/.

[637] Article 55-A, General Law on Protection of Personal Data (LGPD), (Aug. 14, 2020), http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2018/Lei/L13709.htm.

[638] Ibid., Article 55-B.

[639] Art. 55-J LGPD; Centre for Information Policy Leadership (CIPL) and Centro de Direito, Internet e Sociedade of Instituto Brasiliense de Direito Público (CEDIS-IDP), *The Role of the Brazilian Data Protection Authority (ANPD) under Brazil's New Data Protection Law (LGPD)* (Apr. 17, 2020), https://www.huntonprivacyblog.com/wp-content/uploads/sites/28/2020/08/en_cipl-idp_paper_on_the_role_of_the_anpd_under_the_lgpd__04.16.pdf.

[640] Article 55-J LGPD, https://www.gov.br/secretariageral/pt-br/noticias/2020/agosto/governo-federal-publica-a-estrutura-regimental-da-autoridade-nacional-de-protecao-de-dados.

Intelligence,[641] the 2020 GPA Resolution on AI Accountability,[642] or the 2022 GPA Resolution on Facial Recognition Technology.[643]

In September 2020, the Federal Government published a decree establishing the rules governing the ANPD with the objective of giving effect to the LGPD and enabling sanctions in case of non-compliance.[644]

Some concerns have been voiced regarding the ANPD's independence. Of the five members of the ANPD Board of Directors appointed by the President, three were military, including the ANPD's president.[645] In October 2020, the OECD stated that: "administrative and legal frameworks that leave open even a small possibility of a privacy enforcement authority being instructed by another administrative body on how to exercise its functions do not satisfy the independence criterion."[646] The OECD recommended that "Brazil amend the law establishing the National Data Protection Authority; ensure that the rules for appointing the ANPD's Board of Directors and the National Council for the Protection of Personal Data are transparent, fair and based on technical expertise; and guarantee an adequate and predictable budget to the ANPD through a transparent process".[647]

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[641] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[642] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[643] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology (Oct. 2022)*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[644] Government of Brazil, *Federal Government publishes the regulatory structure of the National Data Protection Authority: Measure complies with the General Personal Data Protection Law and provides conditions for the operationalization of personal data protection in Brazil* (Sept. 2, 2020), https://www.gov.br/secretariageral/pt-br/noticias/2020/agosto/governo-federal-publica-a-estrutura-regimental-da-autoridade-nacional-de-protecao-de-dados.

[645] Paula Pagani, Rafael Szmid, *Brazil's Senate approves Presidential appointees for Brazilian Data Protection Authority* (Oct. 23, 2020), https://www.jdsupra.com/legalnews/brazil-s-senate-approves-presidential-63220/.

[646] OECD, *Going Digital in Brazil* 127 (Oct. 26, 2020), https://www.oecd-ilibrary.org/docserver/e9bf7f8a-en.pdf.

[647] Ibid.

On October 26, 2022, the National Congress approved Law No. 14.460/2022 which severed the ANPD's ties with the Presidency.[648] Thanks to its special nature, the ANPD preserves its technical and decision-making autonomy in relation to direct public administration. Like other autarchies, it will benefit from administrative and budgetary autonomy.

On November 8, 2022, the Brazilian Data Protection Authority (ANPD) published its regulatory agenda for 2023-2024 with the goal to provide greater predictability, publicity, transparency and efficiency to its regulatory process. According to the ANPD, in addition to ensuring the proper application of the LGPD, in particular its Article 20 which deals with the right of the data subject to request the review of automated decisions, the ANPD can better address the issue of AI by means of guidance documents (such as guides and technical studies). The ANPD states that it is essential that it studies and monitors the subject from the perspective of personal data protection and, in particular, the application of the LGPD, since these guidelines will serve as a basis for the development of other rules that may be necessary for the discipline of AI systems.[649]

Algorithmic Transparency

Article 20 of the LGPD establishes the right of any individual "to request the review of decisions taken solely on the basis of automated processing of personal data that affect his interests, including decisions designed to define his personal, professional, consumer and credit profile or aspects of his personality."[650]

As a result, "the controller shall provide, whenever requested, clear and adequate information regarding the criteria and procedures used for the automated decision, observing the commercial and industrial secrets."[651] Where the information is not provided due to the observance of commercial and industrial secrecy, the national data protection authority "may perform

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[648] Brazilian Government, *National Congress adopts Law No. 14.460 which transforms ANPD in an autarchy of special nature* (Oct. 26, 2022), https://www.gov.br/anpd/pt-br/assuntos/noticias-periodo-eleitoral/congresso-nacional-promulga-a-lei-no-14-460-que-transforma-a-anpd-em-autarquia-de-natureza-especial.

[649] Autoridade Nacional de Proteção de Dados, ANPD. Agenda regulatória 2023-2024 (Nov. 4, 2022), https://www.gov.br/anpd/pt-br/assuntos/noticias/anpd-publica-agenda-regulatoria-2023-2024/AgendaRegulatria20232024.pdf/view.

[650] Presidency of the Republic, Sub-General Secretariat for Legal Affairs, General Law on Protection of Personal Data (LGPD) (Aug. 14, 2020) http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2018/Lei/L13709.html; Katitza Rodriguez, Veridiana Alimonti, *A Look-Back and Ahead on Data Protection in Latin America and Spain* (Sept. 21, 2020).

[651] Article 20.1 LGPD.

audits to verify discriminatory aspects in automated processing of personal data."[652]

Some Brazilian researchers, such as Prof. Renato Leite Monteiro, have stated that a comprehensive interpretation of the LGPD, in conjunction with the Constitution, consumer law and other legal provisions, guarantees the existence of a right to explanation in Brazil. However, this position demands greater judicial consolidation.[653]

The national AI strategy heavily features algorithmic transparency as a goal for the development of AI capabilities and policies in Brazil. One of the critical strategic actions delineated in the EBIA is "[e]ncouraging transparency and responsible disclosure actions regarding the use of AI systems, and promoting compliance by such systems with human rights, democratic values and diversity."[654] The EBIA also outlined algorithmic transparency as a critical theme to be pursued in AI research. The strategy outlined transparency as a critical element of AI governance both regarding explainability of decisions taken by autonomous systems and the transparency of methodologies used in the development of AI systems, including data sources and project procedures.[655]

Algorithm-based Advertising

In December 2021, the Brazilian Advertising Self-Regulation Council (CONAR)[656] decided a case involving algorithm-based advertising.[657] The ruling was issued with regard to Complaint No. 203/2021, filed by a consumer against a streaming platform, alleging that an ad did not reflect the actual content of the platform. In its defense, the streaming platform clarified that its ads are created automatically through algorithms, which, having identified the consumer's interest in the film, would have then used the film to increase the consumer's engagement with

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[652] Article 20.2 LGPD.

[653] Institute for Research on Internet and Society, *Automated decisions and algorithmic transparency* (Nov. 16, 2019), https://irisbh.com.br/en/automated-decisions-and-algorithmic-transparency/.

[654] Ministério da Ciência, Tecnologia e Inovações, *Estratégia Brasileira de Inteligência Artificial*, p. 23 (July 13, 2021), https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/transformacaodigital/arquivosinteligenciaartificial/ebia-diagramacao_4-979_2021.pdf.

[655] Ibid., p. 25 (July 13, 2021).

[656] CONAR is a non-governmental organization that acts as a tribunal within the advertising industry, seeking to ensure advertising practices are lawful and ethical (CONAR, About CONAR, http://www.conar.org.br/).

[657] CONAR, *Complaint No. 203/21, Ruling issued on 7 Dec. 2021*, in CONAR, Conar Gazette: Ethics in Practice, Issue 222, (Jan. 2022), pp. 6-7, http://www.conar.org.br/pdf/conar222.pdf.

the ad. CONAR did not consider that the streaming platform had committed any irregularities through this practice. However it warned that advertisers should be cautious when using algorithm-based advertising, as those may hinder consumers from obtaining the solutions they actually seek.

EdTech

The EdTech apps Descomplica and Stoodi used in Sao Paulo were part of a 2022 global study conducted by Human Rights Watch on the education technology endorsed by 49 governments, including Brazil, for children's education during the pandemic. Based on technical and policy analysis of these EdTech products, Human Rights Watch found that Brazil's endorsement of these online learning platforms put at risk or directly violated children's rights.

Human Rights Watch found that both Descomplica and Stoodi have "the ability to collect their users' advertising IDs. This allowed these apps to tag children and identify their devices for the sole purpose of advertising to them." According to Human Rights Watch, in line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop, refine, and enforce modern child data protection laws and standards, and ensure that children who want to learn are not compelled to give up their other rights in order to do so.[658]

Medical Data

According to a 2020 OECD report for the G20 Digital Economy Task Force, Brazil is in the process of establishing regulation in the area of privacy and personal data protection in health systems, consistent with existing legislation, including the LGPD. To this end, the country is developing a national electronic health records system, which aims to provide a robust database for current medical use, as well as for technology development and innovation.[659]

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[658] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[659] OECD G20 Digital Economy Task Force, *Examples of AI National Policies* 10 (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf.

On March 24, 2022, the Brazilian Health Regulatory Agency (ANVISA)[660] published a Resolution about the regularization of Software as a Medical Device (SaMD). Resolution (RDC) 657/2022 entered into force on July 1, 2022.[661] ANVISA clarified that the purpose of the device must be respected. There is currently no provision for specific regulation of SaMD that includes AI or ML technology; however, manufacturers of SaMD using this type of technology should submit, at the time of regularization, a description of the databases used for AI learning, training and verification activities, information regarding the origin, the amount and the description of the data used together with a report containing a justification for the AI technique applied, the size of the databases used and a report on the training history. The absence of such information at the time of submission of the device regularization may lead to a negative outcome, for lack of sufficient explanation regarding the technology applied to the product, as required in the medical device regulation.[662]

AI and the Judiciary

With a current backlog of 78 million lawsuits, the Brazilian judicial system operates with substantial challenges in case flow management. The lack of resources to meet this demand[663] has led to numerous initiatives involving Artificial Intelligence.[664]

In this context, the President of the National Council of Justice (CNJ), a judicial agency responsible for the administrative and financial

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[660] The Brazilian Health Regulatory Agency (Anvisa) is an autarchy linked to the Ministry of Health, part of the Brazilian National Health System (SUS) as the coordinator of the Brazilian Health Regulatory System (SNVS), present throughout the national territory. Anvisa's role it to promote the protection of the population's health by executing sanitary control of the production, marketing and use of products and services subject to health regulation, including related environments, processes, ingredients and technologies, as well as the control in ports, airports and borders. More information at https://www.gov.br/anvisa/pt-br/english.

[661] Brazilian Government, *Resolution No. 657 of 24 March 2022*, https://www.in.gov.br/en/web/dou/-/resolucao-de-diretoria-colegiada-rdc-n-657-de-24-de-marco-de-2022-389603457.

[662] ANVISA, *Perguntas e Respostas*, pp. 40-41, https://www.gov.br/anvisa/pt-br/assuntos/noticias-anvisa/2022/software-como-dispositivo-medico-perguntas-e-respostas/perguntas-respostas-rdc-657-de-2022-v1-01-09-2022.pdf

[663] SIPA, *The Future of AI in the Brazilian Judicial System: AI Mapping, Integration and Governance*, https://itsrio.org/wp-content/uploads/2020/06/SIPA-Capstone-The-Future-of-AI-in-the-Brazilian-Judicial-System-1.pdf.

[664] AI devices (called "robots"), tested in the Brazilian Judiciary include Leia, Poti, Jerimun, Clara, Radar, Elis, Sinapse, Victor, each with a specific function.

control of the judiciary and the supervision of judges,[665] published in August 2020 a Resolution on ethics, transparency and governance in the production and use of Artificial Intelligence in the Judiciary. [666] The NCJ Resolution addresses AI-related requirements such as respect for human rights, preservation of equality, non-discrimination, plurality and solidarity, transparency (from disclosure to explainability), data security, user control and accountability.

The Public Prosecutor's Office[667] of the State of Rio de Janeiro has reportedly invested in data science and AI to expedite investigations and prevent crimes.[668] The system has allowed information from different sources and bodies to be collected as well as real-time data to be collected from suspected criminals. Likewise, Brazil's federal and state police are using AI applications such as military drones[669] and crime prediction software.[670]

Similar to the EU GDPR, the LGPD (Art. 4) excludes "the processing of data for the purposes of public security" from its scope and states that such processing "shall be governed by specific legislation, which shall provide proportional and strictly necessary measures in order to serve

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[665] US Law Library of Congress, *Brazil, Legal Research Guide – The Judicial Branch* (2011), https://www.loc.gov/law/help/legal-research-guide/brazil-judicial-branch2_2011-005662_RPT.pdf.

[666] National Council of Justice, *Resolution No. 332 provides for ethics, transparency and governance in the production and use of Artificial Intelligence in the Judiciary and provides other measures* (Aug. 21, 2020), https://atos.cnj.jus.br/atos/detalhar/3429.

[667] In Brazil, the Prosecution Service is not part of the Executive. The legislative and judicial branches are totally independent. It cannot be terminated and its duties cannot be transferred to other government agencies. Prosecutors have their independence guaranteed by the Brazilian Constitution. They are subordinated to an authority for administrative purposes only, but each member of the Prosecution Service is free to act according to their conscience and convictions under the law. See Brazilian Prosecution Service, https://www.mpf.mp.br/rj.

[668] MPRJ, *Aposta em Inteligência Artificial para Agilizar Investigações no Rio*, G1 (Oct. 1, 2018), https://g1.globo.com/rj/rio-de-janeiro/noticia/2018/10/01/mp-aposta-em-inteligencia-artificial-para-agilizar-investigacoes-no-rj.ghtml.

[669] ISTOE*, Against organized crime, PF puts unmanned aerial vehicle in the Amazon (Aug, 20, 2016),* https://istoe.com.br/contra-o-crime-organizado-pf-poe-veiculo-aereo-nao-tripulado-na-amazonia/.

[670] Sarah Griffiths, *CrimeRadar is using machine learning to predict crime in Rio*, Wired UK (Aug. 18, 2016), https://www.wired.co.uk/article/crimeradar-rio-app-predict-crime. See also United for Smart Sustainable Cities, *Crime prediction for more agile policing in cities –Rio de Janeiro, Brazil: Case study of the U4SSC City Science Application Framework* (Oct. 2019), https://igarape.org.br/wp-content/uploads/2019/10/460154_Case-study-Crime-prediction-for-more-agile-policing-in-cities.pdf.

the public interest." However, such specific legislation does not yet exist in Brazil.[671]

Computational Propaganda

According to Freedom House, Brazil is only "partly free" when it comes to "Freedom on the net". "Manipulated content is common in the Brazilian online environment, with a notable proliferation of disinformation during the 2018 and 2022 election campaigns."[672] Several studies[673] have pointed out the use of bots on online gatekeepers in the electoral context. Misinformation campaigns in Brazil have consisted in "pro-government and pro-party propaganda"; "attack[ing] the opposition and mount[ing] smear campaigns"; "suppress[ing] participation through trolling and harassment"; "driv[ing] division and polariz[ing] citizens."[674]

Global Voice also reported that "in February 2022, the Federal Police delivered a partial report to the Supreme Court in which it further detailed the structure of these "digital militias" charged with coordinating attacks against rival politicians, democratic institutions, and the dissemination of "false news." This report was part of a Supreme Court probe (dubbed "the digital militias probe") opened in 2021."[675]

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[671] Mariana Canto, *Submission to the UN Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression: The Surveillance Industry* (Feb. 2019), https://ohchr.org/Documents/Issues/Opinion/Surveillance/MARIANA%20CANTO.pdf.

[672] Freedom House, *Freedom on the Net 2022 - Brazil Country Report*, https://freedomhouse.org/country/brazil/freedom-net/2022.

[673] See Samantha Bradshaw, Hannah Bailey, Philip N. Howard, *Industrialized Disinformation – 2020 Global Inventory of Organized Social Media Manipulation*, Oxford Internet Institute (2021), https://demtech.oii.ox.ac.uk/wp-content/uploads/sites/12/2021/02/CyberTroop-Report20-Draft9.pdf; Joao Guilherme Bastos dos Santos, Arthur Ituassu, Sergio Lifschitz, Thayane Guimaraes, Diego Cerqueira, Debora Albu, Redson Fernando, Julia Hellen Ferreira, Maria Luiza Mondelli, *Das milícias digitais ao comportamento coordenado: metodosinterdisciplinares de analise e identificacao de bots nas eleicoes brasileiras*, Sociedade Brasileira de Computação (2021), pp. 187-192, https://doi.org/10.5753/brasnam.2021.16138.

[674] Samantha Bradshaw, Hannah Bailey, Philip N. Howard, *Industrialized Disinformation – 2020 Global Inventory of Organized Social Media Manipulation*, Oxford Internet Institute (2021), https://demtech.oii.ox.ac.uk/wp-content/uploads/sites/12/2021/02/CyberTroop-Report20-Draft9.pdf.

[675] Lais Martins, *Under Bolsonaro, political attacks gain institutional legitimacy in Brazil*, Global Voices (Oct. 2, 2022), https://advox.globalvoices.org/2022/10/02/under-bolsonaro-political-attacks-gain-institutional-legitimacy-in-brazil/.

Facial Recognition

Facial recognition is implemented by both the public and private sectors in Brazil. According to Instituto Igarapé, a Brazilian think tank, there were at least 48 facial recognition applications throughout 16 Federal States between 2011 to 2019.[676] The main use sectors are (i) public security, (ii) border control, (iii) transportation and (iv) education.[677]

In August 2018, the Brazilian Institute for Consumer Protection (IDEC) brought a civil public class action[678] before the Court of Justice of Sao Paulo for breach of privacy and consumer legislation against the São Paulo Metro operator, regarding an AI crowd analytics system that claimed to predict the emotion, age, and gender of metro passengers without processing personal data.[679] In May 2021, the São Paulo 37th Civil Court ordered the company to pay compensation for passengers' data collection without their consent and prohibited it from continuing the implementation and use of cameras which recognized human presence or identified emotion, gender, and age groups.[680]

Another monitoring system with built-in facial recognition installed in São Paulo subway network was challenged in Court. Early 2020, the operating company was requested to provide clarifications on the risks and impact assessment expected with the implementation of the new technology, on how personal data will be processed, on technical databases and security systems issues, and on actions to mitigate the potential risk of a data breach.[681] In March 2022, the 6th Public Treasury Court of São Paulo

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[676] Instituto Igarapé, *Facial Recognition in Brazil*, https://igarape.org.br/infografico-reconhecimento-facial-no-brasil/ ("Facial recognition became especially popular in 2019. The year began with the announcement of a PSL delegation to China to acquire the technology.")

[677] Thiago Moraes, *Facial Recognition in Brazil*, Wired (Nov. 20, 2019), https://medium.com/@lapinbr/face-recognition-in-brazil-f2a23217f5f7.

[678] Instituto Brasileiro de Defesa do Consumidor (Aug. 30, 2018), https://idec.org.br/sites/default/files/acp_viaquatro.pdf.

[679] AccessNow, *Facial recognition on trial: emotion and gender "detection" under scrutiny in a court case in Brazil* (June 29, 2020), https://www.accessnow.org/facial-recognition-on-trial-emotion-and-gender-detection-under-scrutiny-in-a-court-case-in-brazil/.

[680] Tribunal de Justicia do Estado de São Paulo, 37th Civil Court, *IDEC v. ViaQuatro* (May 7, 2021) https://idec.org.br/sites/default/files/75432prot_sentenca-viaquatro.pdf.

[681] Tribunal de Justicia do Estado de São Paulo,1st Public Treasury Court of São Paulo, *Defensoria Publica do Estado de Sao Paulo e outros v. Companhia do Metropolitano de Sao Paulo - METRO* (Feb. 12, 2020), https://idec.org.br/sites/default/files/doc_76725029_1.pdf; Tozzini Freire, *Facia Recognition is Disputed in Court* (Feb. 14, 2020), https://tozzinifreire.com.br/en/boletins/facial-recognition-is-disputed-in-court.

delivered a preliminary injunction ordering the operating company to suspend the deployment and use of a facial recognition system in the São Paulo metro stations.[682] In April 2022, the preliminary injunction was confirmed in appeal by the São Paulo 5th Public Law Chamber.[683] However, in October 2022, the same Chamber ruled that the operating company was entitled to deploy and use facial recognition technology on the ground that the LGPD allows such use for public security purposes. Governor Rodrigo Garcia officially inaugurated the facial recognition system on 21 November. The aim is for 5.000 biometric cameras to be deployed in transit stations over the next 30 months.[684]

The Brazilian police has also been using live facial recognition for Carnival and has plans to use the technology in events involving crowds to find wanted criminals. In 2020, police forces rolled out facial recognition in six capitals across the country. When announcing the use of live facial recognition, the São Paulo police said a "situation room" would monitor the images from the cameras, which would then be compared with a database managed by a biometrics lab. According to the police, the aim is to reduce the likelihood of mistakes, such as wrongful arrests.[685]

In 2021, Brazil rolled out end-to-end biometric identification technologies by IDEMIA, a technology solution provider, for use in passenger identification at several airports, including domestic airports in São Paulo and Rio de Janeiro.[686] Many have voiced concern at the

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[682] Tribunal de Justicia do Estado de São Paulo, 6th Public Treasury Court of São Paulo, *Defensoria Publica do Estado de Sao Paulo e outros v. Companhia do Metropolitano de Sao Paulo – METRO* (March 22, 2022), https://images.jota.info/wp-content/uploads/2022/03/liminar-metro-reconhecimento-facial.pdf.
Angelica Mari, *São Paulo subway ordered to suspend use of facial recognition* (Mar. 25, 2022), https://www.zdnet.com/article/sao-paulo-subway-ordered-to-suspend-use-of-facial-recognition/.
[683] Tribunal de Justicia do Estado de São Paulo,5th Public Law Chamber (Appeal), *Defensoria Publica do Estado de Sao Paulo e outros v. Companhia do Metropolitano de Sao Paulo – METRO* (April 12, 2022), https://internetlab.org.br/wp-content/uploads/2022/04/doc_429164790.pdf.
[684] Biometric update.com, *Brazil deploys ISS facial recognition to secure São Paulo metro* (Dec. 9, 2022), https://www.biometricupdate.com/202212/brazil-deploys-iss-facial-recognition-to-secure-sao-paulo-metro.
[685] Angelica Mari, *Brazilian police introduces live facial recognition for Carnival,* Brazil Tech (Feb. 25, 2020), https://www.zdnet.com/article/brazilian-police-introduces-live-facial-recognition-for-carnival/.
[686] Angelica Mari, *Brazilian airports expand facial recognition trials*, ZDNet (Nov. 22, 2021), https://www.zdnet.com/article/brazilian-airports-expand-facial-recognition-trials/; Chris Burt, *Brazil's Pilot of IDEMIA Face Biomentrics Advances to Simultaneous Operation at Capital Airports, Biometric Update* (June 16, 2021),

government's embrace of facial recognition technology, especially surrounding issues of racial bias, given that the LGPD does not address these technologies.[687]

In the first quarter of 2022, several campaigns started in Brazil opposing the widespread use of facial recognition technologies in public spaces.

One of them is called *Sai da minha cara* (Get off my face) and is led by civil society organizations, including the IDEC.[688] A localized campaign with several states and cities joining it, "Sai da minha cara" advocates in favour of the adoption of laws to ban facial recognition. Some examples (all of which are yet to be adopted) are:

- In the state of Sao Paulo (the most populous in Brazil), there is currently a bill pending before the State Legislative Assembly, seeking to restrict the use of facial recognition by public authorities;[689]
- In the city of Curitiba (capital city of the State of Paraná), there is currently a bill before the City Council, seeking to restrict the use of facial recognition for mass surveillance by public authorities;[690]
- In the city of Porto Alegre (capital city of the State of Rio Grande do Sul), there is currently a bill before the City Council, seeking to restrict the use of facial recognition by public authorities.[691]

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https://www.biometricupdate.com/202106/brazils-pilot-of-idemia-face-biometrics-advances-to-simultaneous-operation-at-capital-airports.

[687] Charlotte Peet, *Brazil's embrace of facial recognition worries Black communities*, Rest of World (Oct. 22, 2021), https://restofworld.org/2021/brazil-facial-recognition-surveillance-black-communities/; Leaders League The controversial use of facial recognition in Brazil and Europe (Aug. 12, 2021), https://www.leadersleague.com/fr/news/the-controversial-use-of-facial-recognition-in-brazil-and-europe.

[688] IDEC, *Lawmakers from all regions of Brazil present bills to ban facial recognition in public spaces* (Jun. 20, 2022), https://idec.org.br/release/parlamentares-de-todas-regioes-do-brasil-apresentam-projetos-de-lei-pelo-banimento-do.

[689] Sao Paulo Legislative Assembly, *State Law Proposal No. 385/2022* (June 23, 2022), https://www.al.sp.gov.br/propositura/?id=1000448817.

[690] Curitiba City Council, *Law Proposal No. 005.00138.2022* (July 1, 2022), https://www.cmc.pr.gov.br/wspl/sistema/ProposicaoDetalhesForm.do?select_action=&pro_id=459750.

[691] Porto Alegre City Council, *Process No. 00499/22* (June 21, 2022), https://www.camarapoa.rs.gov.br/processos/137992.

Another campaign started in May 2022 under the name "Tire o Meu Rosto da Sua Mira"
(Get My Face Out of Your Sight).[692] Civil society organizations demand a total ban on the use of facial recognition technologies for public security purposes in Brazil. According to the campaign's open letter, in Brazil, a country with the third largest incarcerated population in the world, the use of facial recognition technologies for public security purposes would lead to the worsening of racist practices.

On 31 August 2022, a Federal Law proposal seeking to regulate the use of facial recognition technologies in Brazil both for the private and public sectors was submitted to the Brazilian House of Representatives.[693] On 5 October 2022, the legislative process started and the proposed legislation was forwarded to the responsible commissions.

The banning of the use of facial recognition systems for public security purposes was one of the key points that emerge during the public hearings promoted by the Commission of Jurists which elaborated the proposal for the regulation of artificial intelligence in Brazil.[694]

Lethal Autonomous Weapons

During the 2018 discussions of the Group of Governmental Experts (GGE) on lethal autonomous weapons (LAWS),[695] Brazil issued a joint statement along with Austria and Chile, which proposed to establish an open-ended GGE to negotiate a legally binding instrument to ensure meaningful human control over critical functions in LAWS.[696]

At the 77th UN General Assembly First Committee meeting in October 2022, Brazil's representative emphasized the need for a regulation that recognizes the centrality of human control in the development and use

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[692] https://tiremeurostodasuamira.org.br.

[693] Brazilian House of Representatives, *Federal Law Proposal No. 2392/2022* (Aug, 31, 2022),
https://www.camara.leg.br/proposicoesWeb/fichadetramitacao?idProposicao=2334803.

[694] Federal Senate, *Debates suggest the end of facial recognition in public security* (May 18, 2022), https://www12.senado.leg.br/noticias/materias/2022/05/18/debates-apontam-para-fim-do-reconhecimento-facial-na-seguranca-publica

[695] Group of Governmental Experts on emerging technologies in the area of lethal autonomous weapons systems (GGE LAWS) of the High Contracting Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects.

[696] GGE LAWS, *Proposal for a Mandate to Negotiate a Legally-binding Instrument that Addresses the Legal, Humanitarian and Ethical Concerns Posed by Emerging Technologies in the Area of Lethal Autonomous Weapons Systems (LAWS)*, U.N. Doc. CCW/ GGE.2/2018/WP.7 (Aug. 30, 2018), https://documents-dds-ny.un.org/doc/UNDOC/GEN/G18/264/05/PDF/G1826405.pdf?OpenElement.

of autonomous systems, in line with international humanitarian law.[697] However, Brazil was not among the 70 countries that endorsed a joint statement on autonomous weapons systems at the October UN General Assembly meeting. In this joint statement, States urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[698]

In February 2023, Brazil endorsed, along with more than 30 other Latin American and Caribbean states, the Belén Communiqué,[699] which calls for "urgent negotiation" of a binding international treaty to regulate and prohibit the use of autonomous weapons to address the grave concerns raised by removing human control from the use of force.

Human Rights

Brazil is a signatory to many international human rights treaties and conventions and is considered as a free country in the world for the protection of human rights and transparency.[700] In 2022 Freedom House gives Brazil a "free" (73/100) rating for political rights and civil liberties. Brazil's status dropped from 2021 (74/100).[701] According to Freedom House, Brazil is "a democracy that holds competitive elections, and the political arena, though polarized, is characterized by vibrant public debate. However, independent journalists and civil society activists risk harassment and violent attack, and the government has struggled to address high rates

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[697] UN press release, *Enough Bullets Made Each Year to Kill 'Twice the Number of Planet's Inhabitants'*, First Committee Hears during Debate on Conventional Weapons (Oct. 21, 2022), https://press.un.org/en/2022/gadis3695.doc.htm.

[698] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022),
https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw 9WYcSnnAm_en.pdf.

[699] Communiqué of the Latin American and the Caribbean Conference of Social and Humanitarian Impact of Autonomous Weapons (Feb. 24, 2023),
https://www.rree.go.cr/files/includes/files.php?id=2261&tipo=documentos

[700] Freedom House, *Freedom in the World 2022 – Brazil*,
https://freedomhouse.org/country/brazil/freedom-world/2022.

[701] Freedom House, *Freedom in the World 2021 - Brazil*,
https://freedomhouse.org/country/brazil/freedom-world/2021.

of violent crime and disproportionate violence against and economic exclusion of minorities."[702]

As indicated in the Data protection section of this report, in February 2022, the Brazilian Congress enacted a Constitutional Amendment establishing personal data protection as a fundamental right in the Brazilian Constitution.

OECD AI Principles

Brazil has endorsed the OECD and the G20 AI Principles and referred to the OECD Principles as important guidance for the development of its national AI strategy. Brazil has also joined the Global Partnership on AI, a multi-stakeholder initiative which aims to foster internationational cooperation on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[703]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Brazil has endorsed the UNESCO Recommendations on ethics of AI and recognizes its obligation to implement the framework. On May 11, 2022, UNESCO, in cooperation with the Regional Centre for Information Society Development Studies ("CETIC.br"), held an event to launch the Portuguese version of the UNESCO AI Recommendation, which aimed to "discuss and promote this subject in Brazilian society".[704] In 2019, Brazil hosted the UNESCO Latin American AI forum organized by CETIC.br involving different UNESCO members and officers. According to Marlova Noleto, director and UNESCO representative in Brazil, the country was actively engaged in the preparation of the UNESCO AI Recommendation and aligned with the contents thereof even before formal adoption.[705]

The Brazilian Ambassador to UNESCO and president of UNESCO's 41st General Conference, Santiago Mourão, emphasized that the UNESCO AI Recommendations fully align with the Brazilian government's guidelines and actions on AI themes. He highlighted that the importance

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[702] Freedom House, *Freedom in the World 2022 – Brazil*, https://freedomhouse.org/country/brazil/freedom-world/2022.
[703] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/.
[704] UNESCO, *UNESCO launches Portuguese version of publication of artificial intelligence* (May 11, 2022), launch webinar available at https://brasil.un.org/pt-br/181308-unesco-lanca-versao-em-portugues-de-publicacao-sobre-inteligencia-artificial.
[705] Ibid.

given to ethics in AI by Brazil is reflected in its engagement in intergovernmental negotiations, as well as in the inclusion of the theme in the Brazilian Strategy for AI.[706]

CAF, the development bank of Latin America, and UNESCO signed a letter of intent to collaborate on the implementation of the recommendation on artificial intelligence ethics in Latin America and the Caribbean. They pledged to create a Regional Council composed of national and local governments in the region which will support their implementation efforts. According to Gabriela Ramos, UNESCO Assistant Director-General for Social and Human Sciences, Brazil will be a member of the Regional Council.[707]

Evaluation

Brazil has developed a robust national strategy for AI and is in the process of adopting a new AI legislation. It has also made efforts to promote public participation in the development of AI policy. Brazil has established a comprehensive law for data protection which promotes algorithmic transparency.

Brazil has endorsed the OECD / G20 AI Principles as well the UNESCO Recommendation on the ethics of AI. It has also recognized its obligation to implement the UNESCO Recommendation.

Although Brazil has a fairly good record on human rights, its rating by Freedom House has been slowly decreasing in recent years. Attacks on democracy have been spreading through the use of computational propaganda during electoral campaigns. The growing use of facial recognition, mixed courts' decisions and the absence of any ANPD decisions in this regard are also matters of concern.

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[706] Ibid.

[707] G. Ramos, *Inteligência Artificial ética e responsável: das palavras aos fatos e direitos*, Somos Ibero-America (Feb. 1, 2023), https://www.somosiberoamerica.org/pt-br/tribunas/inteligencia-artificial-etica-e-responsavel-das-palavras-aos-fatos-e-direitos/.

Canada

National AI Strategy

The Canadian government has stated "Artificial intelligence (AI) technologies offer promise for improving how the Government of Canada serves Canadians. As we explore the use of AI in government programs and services, we are ensuring it is governed by clear values, ethics, and laws."[708] Canada has set out five Guiding Principles to "ensure the effective and ethical use of AI." The government has committed to "understand and measure" impacts, be transparent about use, "provide meaningful explanations" for AI decision-making, "be as open as we can be," and provide sufficient training."[709]

The government of Canada and the government of Quebec have announced a joint undertaking to "advance the responsible development of AI."[710] The establishment of the Centre of Expertise in Montréal for the Advancement of Artificial Intelligence (ICEMAI)[711], "enables Quebec to highlight the important role of its AI ecosystem, specifically in the area of responsible development of AI, and to take its place internationally as an essential partner and subject-matter expert."

In 2017, the Canadian Institute for Advanced Research (CIFAR) launched the Pan-Canadian Artificial Intelligence Strategy that includes the AI and Society Program and AI Policy Initiatives.[712] The Pan-Canadian AI Strategy hosted the AICan Symposium virtually in March 2021. The work is funded by the Government of Canada, Facebook, and the RBC Foundation.[713] Canada's federal and provincial governments have dedicated

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[708] Government of Canada, *Responsible use of artificial intelligence (AI)*, https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai.html.

[709] Government of Canada, *Responsible use of artificial intelligence (AI), Guiding Principles*, https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai.html#toc1.

[710] Government of Canada, *The governments of Canada and Quebec and the international community join forces to advance the responsible development of artificial intelligence* (June. 15, 2020), https://www.canada.ca/en/innovation-science-economic-development/news/2020/06/the-governments-of-canada-and-quebec-and-the-international-community-join-forces-to-advance-the-responsible-development-of-artificial-intelligence.html.

[711] *Ibid.*

[712] CIFAR, *Pan-Canadian Artificial Intelligence Strategy*, https://www.cifar.ca/ai/pan-canadian-artificial-intelligence-strategy.

[713] CIFAR, *AICan2019: Annual Report of the CIFAR Pan-Canadian AI Strategy*, https://cifar.ca/wp-content/uploads/2020/04/ai_annualreport2019_web.pdf.

over USD 227 million (CAD 300 million) to AI research over 2017- 22, anchored in the three AI institutes created under the CIFAR Pan-Canadian AI Strategy.[714] "In June, 2022 the second phase of CIFAR's Pan-Canadian Artificial Intelligence Strategy was announced, consisting of $443 million over ten years (with $208 million dedicated to CIFAR). The second phase entails collaboration with Alberta Machine Intelligence Institute[715] (Amii), Montreal Institute for Learning Algorithm[716] (Mila), and the Vector Institute for AI [717] and other partners."[718]

In October 2020, CIFAR released the Pan-Canadian AI Strategy Impact Assessment Report.[719] This report highlights the strategy's impact on the following domains and Canadian regions:

- Commercialization and adoption of AI: 50% growth in foreign direct investment in ICTs from 2017 to 2019.
- Research & development: 109 leading researchers recruited and retained in Canada through the Canada CIFAR AI Chairs program. In 2019, Canadians Yoshua Bengio and Geoffrey Hinton (along with their colleague Yann LeCun), won the ACM A.M. Turing Award, widely considered the "Nobel Prize of Computing".
- Talent and job creation: The strategy helped create a Canadian ecosystem that attracts and retains highly skilled talent.
- Education: enrollment in math, computer and information science postsecondary programmes grew by 26% since 2015/16, compared to 3% growth for all topics. Social: Canadian research institutes CIFAR, Amii, Mila and the Vector Institute prioritize AI for Good across societal causes including health, education, and the environment through a portfolio of programs.
- Responsible AI: Canada and France founded the Global Partnership on AI (GPAI) focusing on responsible AI.

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[714] OECD, *State of implementation of the OECD AI Principles: Insights from national AI policies* (Jun. 18, 2021), https://doi.org/10.1787/1cd40c44-en.

[715] Alberta Machine Intelligence Institute (Amii), https://www.amii.ca/.

[716] Quebec AI Institute, https://mila.quebec/en/.

[717] Vector Institute for AI, https://vectorinstitute.ai/.

[718] CIFAR, "CIFAR Announces Plans for Second Phase of the Pan-Canadian Artificial Intelligence Strategy', June 2022, https://cifar.ca/cifarnews/2022/06/22/cifar-announces-plans-for-second-phase-of-the-pan-canadian-artificial-intelligence-strategy/.

[719] CIFAR (2020), Pan-Canadian AI Strategy Impact Assessment Report, https://cifar.ca/wp-content/uploads/2020/11/Pan-Canadian-AI-Strategy-Impact-Assessment-Report.pdf.

- Regional Impact Evaluation: The establishment of three AI institutes, Amii, Mila, and the Vector Institute, created a collaborative network across Canada, enabling regions to deepen their respective specialized strengths while building cross-regional synergies.[720]

Directive on Automated Decision-making

Government of Canada's Treasury Board Secretariat (TBS) has established a Directive on Automated Decision-making and the Pre-qualified AI Vendor Procurement Program to ensure that administrative decisions are "compatible with core administrative law principles such as transparency, accountability, legality, and procedural fairness."[721] Canada has developed a questionnaire for an Algorithmic Impact Assessment to "assess and mitigate the risks associated with deploying an automated decision system" and to comply with the Directive on Automated Decision-making.[722] The Directive took effect on April 1, 2019, with compliance required by no later than April 1, 2020.

In 2022, the Treasury Board of Canada Secretariat (TBS) is completing the third review of the Directive on Automated Decision-Making. "The review takes stock of the current state of the directive and identifies risks and challenges to the government's commitment to responsible artificial intelligence (AI) in the federal public service."[723]

In a parallel effort to support the Directive, the TBS worked with Public Services and Procurement Canada to establish a Pre-qualified AI Vendor Procurement Program to streamline the procurement of AI solutions and services in the government. This new AI public procurement programme was used to help government departments and agencies build awareness of the solutions offered by AI. It also provided small and medium

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[720] *Ibid*, Page 3.

[721] Government of Canada, *Directive on Automated Decision-Making,* (May. 2, 2019), https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32592

[722] Government of Canada, *Algorithmic Impact Assessment (AIA)*, (July. 28, 2020), https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/responsible-use-ai/algorithmic-impact-assessment.html.

[723] *The Third Review of Directive on Automated Decision-Making*, 2022. https://wiki.gccollab.ca/Third_Review_of_the_Directive_on_Automated_Decision-Making?utm_source=Nutshell&utm_campaign=Next_Steps_on_TBSs_Consultation_on_the_Directive_on_Automated_Decision_Making&utm_medium=email&utm_content=Council_Debrief__July_2021.

AI companies with an opportunity to provide their services to the government. In practice, the initiative did not yet gain traction.[724]

Digital Charter Implementation Act

In June, 2022 the Canadian government introduced Bill C-27, the Digital Charter Implementation Act (DCIA).[725] It consists of three separate pieces of legislation: the Consumer Privacy Protection Act (CPPA), Personal Information and Data Protection Tribunal Act (PIDPTA), and the Artificial Intelligence and Data Act (AIDA).[726] The DCIA's provisions include:

- notification to individual of data breaches that allows them to understand the significance of the breach and actions, access and amendment of personal information;
- explanations of "the predictions, recommendations or decision";
- a list of grounds for objection to such requests (e.g., national security, money laundering or terrorist activities, or enforcement of law and gathering of intelligence to support such activities;
- Standards of information use are also addressed including de-identification of personal information and prohibited uses of that personal information.

The AIDA will establish a common set of requirements for the regulation of international and interprovincial trade and commerce, including the prohibition of certain conducts. This includes processing or making available data related to human activities used to design, development, or implementation of artificial intelligent systems. For systems that can significantly impact human activities, AIDA introduces guidelines for the identification, assessment, and mitigation of risks of harm or biased results from the use of these systems, monitoring and compliance mechanisms, and the publication of plain-language explanations of these systems."

Public Participation

In 2019, Canada established an Advisory Council on Artificial Intelligence to "inform the long-term vision for Canada on AI both

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[724] OECD (2021), *State of implementation of the OECD AI Principles: Insights from national AI policies* (Jun. 18, 2021), https://doi.org/10.1787/1cd40c44-en.
[725] Bill C27, Parliament of Canada, Digital Charter Act, (June 2022), https://www.parl.ca/legisinfo/en/bill/44-1/c-27.
[726] *Ibid.*

domestically and internationally."[727] Composed of researchers, academics, and business leaders, the Council advises the Government of Canada on how to build on Canada's AI strengths to support entrepreneurship, drive economic growth and job creation and build public trust in AI. The Council has created two working groups to date, one on Commercialization and another one on Public Awareness. Public awareness is a key area for the Council that emphasized that policy design, including sectoral priorities, require the trust and support of the public to succeed.[728]

Canada's AI Advisory Council created its public engagement and consultation processes using both consultation and deliberation. The national survey elicited an array of citizens' input on AI use in different sectors. Online workshops aimed to find ways to address ethical concerns raised by citizens via the survey. Among the goals of the deliberative process is to shape a new set of guidelines and recommendations for the development of AI.[729]

Data Protection

The Office of the Privacy Commissioner of Canada provides advice and information for individuals about protecting personal information.[730] The agency also enforces two federal privacy laws that set out the rules for how federal government institutions and certain businesses must handle personal information. The Privacy Act regulates the collection and use of personal data by the federal government.[731] The Personal Information Protection and Electronic Documents Act (PIPEDA) applies to personal data collected by private companies.[732]

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[727] Government of Canada, *Protecting and Promoting Privacy Rights*, https://www.priv.gc.ca/en

[728] Public Awareness Working Group, Innovation Science and Economic Development Canada, https://ised-isde.canada.ca/site/advisory-council-artificial-intelligence/en/public-awareness-working-group.

[729] OECD (2021), *State of implementation of the OECD AI Principles: Insights from national AI policies* (Jun 18, 2021), https://doi.org/10.1787/1cd40c44-en; OECD, *AI Policy Observatory* (2020), https://oecd.ai/dashboards/countries/Canada.

[730] Office of the Privacy Commissioner of Canada, The Privacy Act in brief (Aug. 2019), https://www.priv.gc.ca/en/privacy-topics/privacy-laws-in-canada/the-privacy-act/pa_brief/.

[731] Office of the Privacy Commissioner of Canada, *The Privacy Act in brief* (Aug. 2019), https://www.priv.gc.ca/en/privacy-topics/privacy-laws-in-canada/the-privacy-act/pa_brief/.

[732] Office of the Privacy Commissioner of Canada, *PIPEDA in brief* (May 2019), https://www.priv.gc.ca/en/privacy-topics/privacy-laws-in-canada/the-personal-information-protection-and-electronic-documents-act-pipeda/pipeda_brief/.

First in November 2020, and then in November 2022, after an extensive period of consultation, the Privacy Commissioner issued proposals on regulating artificial intelligence.[733] The recommendations "aim to allow for responsible AI innovation and socially beneficial uses while protecting human rights." The Commissioner recommend amending PIPEDA to:

- allow personal information to be used for new purposes towards responsible AI innovation and for societal benefits
- authorize these uses within a rights-based framework that would entrench privacy as a human right and a necessary element for the exercise of other fundamental rights
- create a right to meaningful explanation for automated decisions and a right to contest those decisions to ensure they are made fairly and accurately
- strengthen accountability by requiring a demonstration of privacy compliance upon request by the regulator
- empower the OPC to issue binding orders and proportional financial penalties to incentivize compliance with the law
- require organizations to design AI systems from their conception in a way that protects privacy and human rights

The Commissioner also highlighted a public consultation, initiated by the OPC, that received 86 comments from industry, academia, civil society, and the legal community, among others. Those inputs were incorporated in a separate report which informs the recommendations for law reform.[734]

Bill C-27, the Digital Charter Implementation Act, 2022[735] will implement the Consumer Privacy Protection Act (CPPA) to replace the federal Personal Information Protection and Electronic Documents Act (PIPEDA), which has regulated the collection, use and disclosure of

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[733] Office of the Privacy Commissioner of Canada, *Commissioner issues proposals on regulating artificial intelligence* (Nov. 2020), https://www.priv.gc.ca/en/opc-news/news-and-announcements/2020/nr-c_201112/; *Commissioner issues proposals on regulating artificial intelligence* (Nov. 12, 2022), https://www.priv.gc.ca/en/about-the-opc/what-we-do/consultations/completed-consultations/consultation-ai/reg-fw_202011/

[734] Office of the Privacy Commissioner of Canada, *Policy Proposals for PIPEDA Reform to Address Artificial Intelligence Report (Nov. 2020),* https://www.priv.gc.ca/en/about-the-opc/what-we-do/consultations/completed-consultations/consultation-ai/pol-ai_202011/.

[735] Bill C27, Parliament of Canada, Digital Charter Implementation Act, (June, 2022), https://www.parl.ca/legisinfo/en/bill/44-1/c-27.

personal information in the course of commercial activity in Canada since 2001.

Algorithmic Transparency

The PIPEDA includes strong rights for individual access concerning automated decisions.[736] The PIPEDA Reform Report for AI builds on public consultations and proposes to "Provide individuals with a right to explanation and increased transparency when they interact with, or are subject to, automated processing."[737] The Cofone Report also explains that "the right to explanation is connected to the principles of privacy, accountability, fairness, non-discrimination, safety, security, and transparency. The effort to guarantee these rights supports the need for a right to explanation."

The Digital Charter Implementation Act[738] would modernize the framework for protection of personal information in the private sector. The Consumer Privacy Protection Act (CPPA), "contains new transparency requirements that apply to automated decision-making systems like algorithms and artificial intelligence." [739]

In the last Open Algorithms Network meeting,[740] that was co-chaired by the Government of Canada, with participation from the Governments of Estonia, Norway, the United Kingdom and Scotland as well as civil society respondents, the participants have started considering issues of "equality, bias, and discrimination in their algorithmic commitments in Open Government Partnership (OGP) action plans and across government AI strategies."[741] "Many of these commitments are

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[736] Office of the Privacy Commissioner, Canada, PIPEDA Fair Information Principle 9 – Individual Access (Aug. 2020), https://www.priv.gc.ca/en/privacy-topics/privacy-laws-in-canada/the-personal-information-protection-and-electronic-documents-act-pipeda/p_principle/principles/p_access/.

[737] Professor Ignacio Cofone, *Policy Proposals for PIPEDA Reform to Address Artificial Intelligence Report* (Nov. 2020), https://www.priv.gc.ca/en/about-the-opc/what-we-do/consultations/completed-consultations/consultation-ai/pol-ai_202011/.

[738] Bill C27, Parliament of Canada, Digital Charter Implementation Act, (June, 2022), https://www.parl.ca/legisinfo/en/bill/44-1/c-27.

[739] Innovation, Science and Economic Development, *Factsheet: Digital Charter Implementaion Act*, 2020, https://ised-isde.canada.ca/site/innovation-better-canada/en/canadas-digital-charter/strengthening-privacy-digital-age/fact-sheet-digital-charter-implementation-act-2020.

[740] Open Government Partnership, *Open Algorithms Network*, https://www.opengovpartnership.org/about/partnerships-and-coalitions/open-algorithms-network/.

[741] Open Government Partnership, *Three Recommendations for More Inclusive and Equitable AI in the Public Sector*, (Jan, 2023),

grounded in the idea that opening data and design of algorithms is an avenue to reduce bias and discrimination, and that the process of collecting data or design is as important as the outcome." [742] Algorithmic transparency[743] is an emerging commitment[744] area for OGP.

Facial Recognition

Canada continues to ensure that facial recognition technologies do not threaten the rights of its citizens. In 2021, Canada took decisive action against Clearview AI after discovering the organization had scraped 3 billions of images of people from across the Internet, in clear violation of the privacy rights of Canadians.[745] In May 2022, the privacy commissioners of Canada, Ontario, and Québec, issued a joint statement recommending the creation of a legal regulatory framework for the use of facial recognition technology by police. The recommendation identifies four requirements[746]:

1. Clear and explicit definitions for the appropriate and prohibited use of facial recognition technologies by law enforcement. This should include 'no-go' zones and the prohibition of mass surveillance.
2. Restricting the use of such technologies based on strict necessity and proportionality,
3. The use of strong independent oversight that are based on proactive engagement including program pre-authorization and advanced notice before initiating initiatives based on facial recognition technology
4. Privacy rights protection that limits the risk to individuals including limitations on the duration of information retention and measures to ensure that data is accurate

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https://www.opengovpartnership.org/stories/three-recommendations-for-more-inclusive-and-equitable-ai-in-the-public-sector/.

[742] *Ibid.*

[743] Open Government Partnership, Transparency, https://www.opengovpartnership.org/glossary/transparency/.

[744] Open Government Partnership, Commitment, https://www.opengovpartnership.org/glossary/commitment/.

[745] Government of Canada, office of the Privacy Commissioner, Clearview AI's unlawful practices represented mass surveillance of Canadians, commissioners say (Feb. 3, 2021), https://www.priv.gc.ca/en/opc-news/news-and-announcements/2021/nr-c_210203/?=february-2-2021.

[746] Office of Privacy Commissioner of Canada, *Joint Statement by Federal, Provincial and Territorial Privacy Commissioners*, (May. 2, 2022), https://www.priv.gc.ca/en/opc-actions-and-decisions/advice-to-parliament/2022/s-d_prov_20220502/.

Following public consultation, the commissioners also indicated that federal and provincial agencies will be provided with specific advances based on specific implementation cases."

Canada Innovation Clusters

Canada's Innovation Superclusters Initiative invites industry-led consortia to invest in regional innovation ecosystems and supports partnerships between large firms, SMEs and industry-relevant research institutions.[747] It has developed innovative AI research ecosystems by establishing networking and collaborative platforms.

Lethal Autonomous Weapons

In 2017 Canadian academics urged Prime Minister Trudeau to oppose Autonomous Weapon Systems, as part of the #BanKillerAI campaign.[748]

In December 2019, Canadian Prime Minister Justin Trudeau gave Foreign Affairs Minister François-Philippe Champagne a mandate to "Advance international efforts to ban the development and use of fully autonomous weapons systems.[749] However, this mandate has not been fulfilled by Champagne or subsequent ministers. In addition to Australia, Japan, South Korean, the United Kingdom, and the United States, Canada was also involved in a proposal to establish "Principles and Good Practices on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems."[750]

In February 2023, the government of the Netherlands hosted the first global Summit on Responsible Artificial Intelligence in the Military

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[747] Innovation, Since and Economic Development, Global Innovation Cluster, Accessed Jan 30, 2023, https://ised-isde.canada.ca/site/global-innovation-clusters/en.

[748] Ian Kerr, *Weaponized AI would have deadly, catastrophic consequences. Where will Canada side*? The Globe and Mail, Nov. 6, 2017, https://www.theglobeandmail.com/opinion/weaponized-ai-would-have-deadly-catastrophic-consequences-where-will-canada-side/article36841036/.

[749] Minister of Foreign Affairs Mandate Letter, (Dec. 13, 2019), https://pm.gc.ca/en/mandate-letters/2019/12/13/archived-minister-foreign-affairs-mandate-letter.

[750] Delegation of Japan to the Conference on Disarmament, Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects ("the Convention" or "CCW"), *Principles and Good Practices on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems,* (March. 7, 2022), https://www.disarm.emb-japan.go.jp/Final%20proposal%20-%20laws%20principles%20and%20good%20practices%20-%20March%207%202022.pdf.

Domain, REAIM 2023. Canada, together with other countries, have agreed a joint call to action on the responsible development, deployment and use of artificial intelligence (AI) in the military domain.[751]

EdTech

In May 2022, Human Rights Watch published a global investigative report on the education technology (EdTech) endorsed by 49 governments, including Canada, for children's education during the pandemic. One of the case studies concerned "CBC Kids", offered by the Canadian Broadcasting Corporation and recommended by Canada's Quebec Education Ministry for pre-primary and primary school-aged children's learning. Based on technical and policy analysis of this EdTech product, Human Rights Watch found that the endorsement of this online learning platforms put at risk or directly violated children's rights, due to its tracking and profiling practices for advertising purposes. According to Human Rights Watch, in line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop, refine, and enforce modern child data protection laws and standards, and ensure that children who want to learn are not compelled to give up their other rights in order to do so.[752]

Human Rights

Canada is a signatory to many international human rights treaties and conventions. Canada typically ranks among the top ten nations in the world for the protection of human rights and transparency (98/100 in 2021).[753] Freedom House reported that, "Canada has a strong history of respect for political rights and civil liberties, though in recent years citizens have been concerned about fair elections and transparent governance;

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[751] Government of Netherlands*, Call to action on responsible use of AI in the military domain,* (Feb. 16, 2023) [Press Release], https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action.

[752] Human Rights Watch, *How Dare They Peep into My Private Life* (May. 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-government

[753] Freedom House, *Freedom in the World 2021 – Canada* (2021), https://freedomhouse.org/country/canada/freedom-world/2021.

humane treatment of prisoners; citizens' right to privacy; and religious and journalistic freedom. While Indigenous peoples and other vulnerable populations still face discrimination and other economic, social, and political challenges, the federal government has acknowledged and made some moves to address these issues."[754] Canada's Status remains the same (98/100) in the 2023 report.[755]

OECD / G20 AI Principles

Canada endorsed the OECD and the G20 AI Principles.

In 2020, Canada and France, and a dozen other countries announced the Global Partnership on Artificial Intelligence to "support the responsible and human-centric development and use of AI in a manner consistent with human rights, fundamental freedoms, and our shared democratic values."[756] According to the statement, the "GPAI will be supported by a Secretariat, to be hosted by the OECD in Paris, as well as by two Centres of Expertise – one each in Montréal and Paris." As the 2020-2021 GPAI Chair, Canada hosted the inaugural GPAI Summit in December 2020.

In 2020, Canada and the European Union recently announced that they were collaborating to leverage AI to help the international community respond to COVID-19. The initiative included the GPAI's group on AI and Pandemic Response and the annual EU-Canada Digital Dialogue.[757]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Canada is a signatory of the UNESCO Recommendation on the Ethics of Artificial Intelligence.[758] It remains to be seen which steps Canada will take to implement the UNESCO Recommendation.

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[754] Freedom House, *Freedom in the World 2020 – Canada* (2020), https://freedomhouse.org/country/canada/freedom-world/2020; Freedom House, *Freedom in the World 2021 –Canada* (2021), https://freedomhouse.org/country/canada/freedom-world/2021.

[755] Freedom House, *Freedom in the World 2022* - Canada (2022), https://freedomhouse.org/country/canada/freedom-world/2022.

[756] Government of Canada, Joint Statement from founding members of the Global Partnership on Artificial Intelligence (June. 15, 2020), https://www.canada.ca/en/innovation-science-economic-development/news/2020/06/joint-statement-from-founding-members-of-the-global-partnership-on-artificial-intelligence.html.

[757] European Union, Joint press release following the European Union-Canada Ministerial Meeting (Sept. 9, 2020), https://eeas.europa.eu/headquarters/headquarters-homepage/84921/joint-press-release-following-european-union-canada-ministerial-meeting_en.

[758] UNESCO, *Recommendation on the Ethics of Artificial Intelligence*, (November. 23, 2021), https://unesdoc.unesco.org/ark:/48223/pf0000381137.

Evaluation

Canada is among the leaders in national AI policies. In addition to endorsing the OECD/G20 AI Principles and establishing the GPAI with France, Canada has also taken steps to establish model practices for the use of AI across government agencies. The new Digital Charter Implementation intends to improve transparency criteria for AI systems. Canada has an admirable record on human rights and is now working to update its national privacy law to address the challenges of AI. In 2021, Canada took decisive action against Clearview AI and continued to lead, with France, the Global Partnership on AI.

Chile

National AI Strategy

Chile's National AI Policy was published in October 2021[759] following public consultations held in 2020 by the Ministry of Science, Technology, Knowledge and Innovation.[760]

The National AI Policy identifies a main objective, four transversal AI policy principles, and three interdependent axes. The axes address current opportunities and gaps in AI regulation by defining the scope of actions for relevant actors to achieve AI policy objectives by 2031.[761] The National AI Policy is complemented by an AI Action Plan, which combines around 70 priority tasks in the areas of education, product development, talent management and others. The AI Action Plan also deals with accountability and establishes timelines for priority tasks implementation.[762] However, the AI Policy does not provide for implementation deadlines, possible funding mechanisms or monitoring instruments, which could be beneficial for the implementation of the AI Action Plan.[763]

The main AI Policy objective for Chile is "to place the country at the forefront of AI research, development, and innovation, with an ecosystem that creates new capacities in various sectors."[764] Such an ecosystem should be designed according to transversal concepts of

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[759] Government of Chile, *Chile presents the first National Policy on Artificial Intelligence* (Oct. 28, 2021), https://www.gob.cl/en/news/chile-presents-first-national-policy-artificial-intelligence/.

[760] Ministerio de Ciencia, Conocimiento, Tecnología e Innovación, *Política Nacional de Inteligencia Artificial (National AI Policy),* https://www.minciencia.gob.cl/uploads/filer_public/bc/38/bc389daf-4514-4306-867c-760ae7686e2c/documento_politica_ia_digital_.pdf

[761] Ibid., p. 16.

[762] Macarena Gatica, Ignacia Ormeño Sarralde, Jaime Urzúa, *Chile: Principles and axes of Chile's AI Policy* (Dec. 2021), https://www.dataguidance.com/opinion/chile-principles-and-axes-chiles-ai-policy

[763] OECD Public Governance Reviews, *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean* (March 22, 2022), Chapter 2 "LAC Artificial Intelligence strategies", https://www.oecd-ilibrary.org/governance/the-strategic-and-responsible-use-of-artificial-intelligence-in-the-public-sector-of-latin-america-and-the-caribbean_1f334543-en.

[764] *Política Nacional de Inteligencia Artificial (National AI Policy),* p. 18, https://minciencia.gob.cl/uploads/filer_public/bc/38/bc389daf-4514-4306-867c-760ae7686e2c/documento_politica_ia_digital_.pdf.

opportunity and responsibility, contribute to sustainable development, and improve the quality of life.[765]

To achieve this, the AI Policy provides for the following transversal principles:[766]

1)   AI with a focus on the well-being of people, respect for human rights and security

The activities will be targeted at improving people's quality of life by capitalizing on the benefits of AI while taking into account its risks and potential negative outcomes, in the light of human rights protection norms. Both the algorithms and the data used for training automated systems should be trustworthy.

2)   AI for sustainable development

The actions will aim to promote AI use and development, and the inclusion of AI in Chile's sustainable development efforts.

3)   Inclusive AI

The actions will put an emphasis on integrity and data quality to address their biases. Chile will ensure that AI does not discriminate based on gender, sexual orientation, and among vulnerable groups, including indigenous peoples, people with disabilities, etc.

4)   AI and globalization

Chile's AI initiatives will be developed in alignment with international efforts in the field of AI. These initiatives will be consistent with the principles and agreements Chile has already signed, such as the OECD AI Principles, and will be updated in accordance with any further international commitments the country will enter into.[767]

The National AI Policy also provides for an AI Action Plan and its implementation. The first axis, "Enabling Factors," refers to the structural components of AI design and deployment, such as talent development, technology infrastructure, and data.[768] The second axis, "Development and Adoption," covers Chile's targets regarding fundamental and applied research, technology transfer, innovation, entrepreneurship, public service improvement, and technology-based economic growth, as well as the participation of various actors in these processes, such as academia, government, private sector and civil society.[769] The third axis, "Ethics, Regulatory Aspects, and Socioeconomic Impacts," tackles human-machine

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[765] Ibid.
[766] Ibid.
[767] Ibid, pp. 18-20.
[768] Ibid, pp. 24-39.
[769] Ibid, pp. 40-48.

interaction and the socio-technical system, considering several important issues identified during the consultations: AI in consumer protection, intellectual property, cybersecurity, AI influence on the labour market and gender dimension, explainability and transparency of the algorithms, etc.[770] Thus, throughout its AI Policy Chile stresses the importance of international standards for AI regulation and the protection of fundamental rights and the rule of law in AI use and deployment.

LATAM 4.0

Chile is also actively working to building regional cooperation through the LATAM 4.0,[771] which was launched in November of 2022. Its purpose is to regionalize AI development to exchange best practices among Latam countries, unify governance criteria, as well to promote regional integration. Moreover, institutionalizing Digital Rights Protection Treaties is one of the key regional strategies envisioned in the LATAM 4.0 regional coalition.

Public Participation

The drafting of the National AI Policy was marked by an effort to ensure wide and inclusive participation across the industry, academia, civil society and the public at large. The core team was composed of 12 experts in the field.[772] Virtual and in-person AI seminars, discussion groups and workshops were held across the country, including the regions, where inputs for the AI Policy were collected.[773] After the first draft of the AI Policy was produced, a citizens' consultation was held to collect their views. Overall, a total of more than 9,000 people participated in the process.[774] The civil society expressed criticism regarding the lack of transparency regarding the output of regional and online workshops and difficulties accessing meeting

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[770] Ibid, pp. 50-67.

[771] LATAM 4.0, https://www.genia.ai/latam-4-0

[772] Ministry of Science, Technology, Knowledge and Innovation, *AI Policy development process*, https://minciencia.gob.cl/areas-de-trabajo/inteligencia-artificial/politica-nacional-de-inteligencia-artificial/proceso-de-elaboracion/

[773] Government of Chile, *Ministry of Science opens participatory process for the National Artificial Intelligence Policy*, https://www.gob.cl/noticias/ministerio-de-ciencia-abre-proceso-participativo-para-la-politica-nacional-de-inteligencia-artificial/

[774] Ministry of Science, Technology, Knowledge and Innovation, *AI Policy development process*, https://minciencia.gob.cl/areas-de-trabajo/inteligencia-artificial/politica-nacional-de-inteligencia-artificial/proceso-de-elaboracion/. For a detailed breakdown of participants per initiative, see OECD, *Chilean participation process on AI*, (no date), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-2673.2

minutes.[775] The inclusivity of the process was also called into question as only 21% of respondents to the second stage consultation were female and a consultation questionnaire was available only in Spanish.[776]

Data Protection

Article 19 of Chile's Constitution (*Constitución Política de la República de Chile*) of 1980 protects the right to private life.[777] In 2018, the constitutional guarantee was extended to explicitly protect personal data.[778]

The Law on Protection of Private Life (*Ley Sobre Protección De La Vida Privada*) (LPPL) of 1999 regulates the processing of personal data in public and private databases.[779] In addition to LPPL, the processing of personal data in the financial and healthcare sectors is regulated by relevant sectoral laws.[780] As of today, there is no authority in Chile with the overall responsibility for data protection supervision. Legal actions regarding the violations of the constitutionally protected right to personal data can be brought before courts.[781] Limited supervisory powers are shared between two authorities:

The Transparency Council (*Consejo para la Transparencia*) is an independent oversight agency which, as a part of its mandate, monitors compliance with the data protection law by the organs of the state administration. The Transparency Council does not have the power to impose fines.[782] The Transparency Council is a member of the Ibero-American Data Protection Network (*Red Iberoamericana de Protección de datos*)[783] and the Global Privacy Assembly.[784] The Transparency Council

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[775] Velasco (Derechos Digitales), *The National Artificial Intelligence Policy of Chile and a process for citizen participation* (Nov. 5, 2021), https://www.derechosdigitales.org/17010/la-politica-nacional-de-inteligencia-artificial-chilena-y-su-proceso-de-participacion-ciudadana/

[776] Ibid.

[777] *Constitution of the Republic of Chile, 24 October 1980* (consolidated March 11, 2022), Article 19 para 4, https://www.bcn.cl/leychile/navegar?idNorma=242302.

[778] *Law No 21096 Concerning the Right to Protection of Personal Data* (June 16, 2018), https://www.leychile.cl/Navegar?idLey=21096&tipoVersion=0.

[779] *Law No 19628 on Protection of Private Life, 18 August 1999* (consolidated version as of Feb. 28, 2020), https://www.bcn.cl/leychile/navegar?idNorma=141599.

[780] Ibid.

[781] Ibid.

[782] Ibid.

[783] Ibero-American Data Protection Network, *List of member of the IADPN*, https://www.redipd.org/es/la-red/entidades-acreditadas

[784] Global Privacy Assembly, *List of accredited members*, https://globalprivacyassembly.org/participation-in-the-assembly/list-of-accredited-members/

has not endorsed any AI-related GPA Resolutions[785] or the ICDPPC Declaration on Ethics and Data Protection in Artificial Intelligence (2018).[786]

- Since December 2021, a consumer protection agency SERNAC (*Servicio Nacional del Consumidor*) has had a competency to monitor data protection compliance in consumer matters. It cannot impose fines but may initiate and participate in judicial proceedings and collective voluntary proceedings.[787]

In March 2017, the Government of Chile presented a Bill Regulating the Processing and Protection of Personal Data and Creating the Data Privacy Authority (*Proyecto de Ley Regula la protección y el tratamiento de los datos personales y crea la Agencia de Protección de Datos Personales*) (PPPD Bill).[788] The PPPD Bill aims to modernize the LPPL and align it with international standards. The PPPD Bill establishes a supervisory authority with the competence to impose sanctions for violation of data protection obligations. If the Bill is adopted, the authority will have the power to impose fines of up to 10,000 Monthly Tax Units (approx. $670,000 or €592,080).[789] In January 2022, the PPPD Bill passed the

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[785] See e.g. Global Privacy Assembly, *Adopted Resolution on accountability in the development and use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf. Notably, the first time Chile's Transparency Council joined GPA as a full member was at the GPA's 42nd assembly in October 2020, see Transparency Council, *CPLT participates for the first time as a full member in the global forum on privacy and protection of personal data* (Oct. 15, 2020), https://www.consejotransparencia.cl/cplt-participa-por-primera-vez-como-miembro-pleno-en-foro-global-sobre-privacidad-y-proteccion-de-datos-personales/

[786] 40th International Conference of Data Protection and Privacy Commissioners, *Declaration on ethics and data protection in Artificial Intelligence* (Oct. 23, 2018), http://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[787] DLA Piper, *Data protection laws of the world – Chile* (Jan. 24, 2022), https://www.dlapiperdataprotection.com/index.html?t=law&c=CL

[788] *Bill Regulating the Protection and Processing of Personal Data and Creating the Personal Data Protection Agency*, Bulletin Nos 11144-07 and 11092-07 (March.15, 2017), https://www.camara.cl/legislacion/ProyectosDeLey/tramitacion.aspx?prmID=11661&prmBoletin=11144-07. The version approved by the Senate on 25 January 2022 has been consulted for the purpose of the report, see Trendtic, *Personal data protection law: Senate approves project and creates the Personal Data Protection Agency* (Jan. 26, 2022), https://www.trendtic.cl/2022/01/ley-proteccion-de-datos-personales-senado-aprueba-proyecto-y-crea-la-agencia-de-proteccion-de-datos-personales/ .

[789] DataGuidance, *Chile - Data Protection Overview* (Nov., 2021), https://www.dataguidance.com/notes/chile-data-protection-overview

Chilean Senate and at the time of writing is being considered by the Chilean Chamber of Deputies.[790]

Algorithmic Transparency

There is currently no legally established right to algorithmic transparency in Chile, and the LPPL does not provide for individual rights related to automated decision-making (ADM).

Article 8.7 of the PPPD Bill introduces a "right not to be subject to automated decision-making"[791] unless this is necessary for the conclusion or performance of the contract or is based on the data subject's consent or a legal obligation. This is defined as the right to object to solely automated decisions, including profiling. If exercised, the data controller must take necessary measures to ensure individual rights, in particular, the right to obtain human intervention by the controller, to express their point of view, and to request a review of the decision.[792] Compared to Article 22 of the GDPR,[793] the right under the PPPD Bill appears to be broader in scope as it extends to all solely automated decisions and does not include a qualifying factor that appears in the GDPR, i.e. a requirement that such decisions produce legal or similarly significant effects on a data subject.[794] However, the PPPD Bill does not require provision of information about the existence and logic of ADM. In the absence of such information provided before the data processing commences, it will be challenging for individuals to anticipate ADM and effectively exercise their right to objection.

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[790] DataGuidance, *Chile: Bill to reform data protection law passes Senate, to be considered by Chamber of Deputie*s (Feb. 3, 2022), https://www.dataguidance.com/news/chile-bill-reform-data-protection-law-passes-senate-be

[791] DataGuidance, *Chile - Data Protection Overview* (Nov., 2021), https://www.dataguidance.com/notes/chile-data-protection-overview

[792] Ibid.

[793] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, L 119/1, 27 April 2016, https://eur-lex.europa.eu/eli/reg/2016/679/oj. See also Working Party 29, *Guidelines on transparency under Regulation 2016/679* (Nov. 29, 2017), para. 41, https://ec.europa.eu/newsroom/article29/redirection/document/51025.

[794] Also see Paz, *Algorithmic transparency, a regulatory or technological problem?* CUHSO (Temuco) vol.31 no.2 Temuco (Dec, 2021), https://www.scielo.cl/scielo.php?pid=S2452-610X2021000200306&script=sci_arttext#fn5.

In October 2022, the Transparency Council initiated efforts to draft a General Instruction on Algorithmic Transparency.[795] The analysis of algorithmic transparency in the public sector carried out by the public innovation lab GobLab UAI and the Transparency Council shows that although information about processing activities and algorithmic logic is sometimes available, it is frequently fragmented and dispersed across different sources.[796] The researchers pointed to the considerable effort required to collect, systematize and present the information in a manner understandable to the recipient.[797]

The survey of 74 companies selling IoT devices carried out by SERNAC in February 2022 showed a widespread lack of knowledge regarding the use of AI and algorithmic technologies within the private sector. Many companies were not aware if manufacturers had employed such technologies in the products they were selling or distributing.[798] This is aggravated by the lack of understanding about what data categories are collected by the IoT devices and the absence of privacy policies explaining processing to the consumers.

With respect to soft law instruments, the 2017 Ibero-American Standards for Data Protection include "the right not to be subject to automated individual decisions" which have legal or otherwise significant effects on a data subject.[799] Although standards and guidelines issued by the Ibero-American Data Protection Network are not hard law, they serve an important standard-setting function.[800]

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[795] GobLab UAI, *UAI and Chilean Transparency Council lead pilot at public agencies for first regulations on algorithmic transparency in Latin America* (Oct. 17, 2022), https://goblab.uai.cl/en/uai-and-cplt-lead-pilot-at-public-agencies-for-first-regulations-on-algorithmic-transparency-in-latin-america/

[796] GobLab UAI and Transparency Council, *Algorithmic transparency in the public sector* (Oct. 2021), p. 19, https://goblab.uai.cl/wp-content/uploads/2021/10/ESTUDIO-TRANSPARENCIA-ALGORITMICA-EN-EL-SECTOR-PUBLICO-GOBLAB-CPLT-final....pdf .

[797] Ibid.

[798] SERNAC, *Exploratory study on the risks of use of IoT devices in Chile* (Feb. 25, 2022), https://www.sernac.cl/portal/619/w3-article-64912.html.

[799] Ibero-American Data Protection Network, *Standards for personal data protection for Ibero-American states* (June 20, 2017), Article 29, https://www.dataguidance.com/sites/default/files/02.24.20_ibero-am_standards.pdf See also Ibero-American Data Protection Network, *General Recommendations for the Processing of Personal Data in Artificial Intelligence* (June. 21, 2019), p. 22, https://www.redipd.org/sites/default/files/2020-02/guide-general-recommendations-processing-personal-data-ai.pdf.

[800] Demetzou, (Future of Privacy Forum), *At the Intersection of AI and Data Protection law: Automated Decision Making Rules, a Global Perspective (CPDP LATAM panel)*,

Facial Recognition

In 2019, a group of 28 civil society organizations and nearly 70 experts have issued a public statement rejecting President Piñera's Mobile Surveillance System deployed the same year.[801] The system was created under Chile's Safe Street (*Calle Segura*) plan and used drones equipped with high definition cameras and facial recognition technology to monitor public areas to fight crime and improve coordination of security agencies. Despite the criticism, the surveillance system which started with a fleet of 8 drones was expanded and new public procurements were ongoing at the time of the writing.[802]

Over the past years, a number of cases were recorded in Chile demonstrating errors, false positives and a general lack of effectiveness with respect to publicly funded and invasive facial recognition systems. The facial recognition system which was deployed in one of Santiago's shopping malls and used to cross-reference images with the Investigative Police database of wanted suspects was reported to result in a 90% rate of false positives.[803] The Transparency Council criticized the system for being disproportionate and intrusive from a privacy perspective.[804] Inadequate results and widespread errors were also reported when using IDEMIA's real-time image analysis and facial recognition software in the municipality of Las Condes[805] and the facial recognition system implemented by the Civil

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(June. 30, 2021), https://fpf.org/blog/at-the-intersection-of-ai-and-data-protection-law-automated-decision-making-rules-a-global-perspective-cpdp-latam-panel/.

[801] Civicus Monitor, *New mass surveillance system concerns Chilean civil society* (July 22, 2019), https://monitor.civicus.org/updates/2019/07/22/new-mass-surveillance-system-chile/ and Derechos Digitales, *Against mass surveillance in public spaces of the "Mobile Tele-Surveillance System"* (April.2, 2019), https://www.derechosdigitales.org/12919/contra-la-vigilancia-masiva-en-los-espacios-publicos-del-sistema-de-televigilancia-movil/.

[802] Garcia, N., *Chile will lease drone flight hours for the surveillance of the Metropolitan Region* (March 9, 2022), https://www.infodefensa.com/texto-diario/mostrar/3483902/chile-arrendara-horas-vuelo-drones-vigilancia-region-metropolitana.

[803] Transparency Council, *CPLT insists that facial recognition in the capital's mall is "disproportionate to the purpose it pursues"* (March 14, 2019), https://www.consejotransparencia.cl/cplt-insiste-en-que-reconocimiento-facial-en-mall-capitalino-es-desproporcionado-para-el-fin-que-persigue/.

[804] Ibid.

[805] Garay, (Derechos Digitales), *Which is worse: a facial recognition system that doesn't work or one that does?* (Sept. 10, 2021), .https://www.derechosdigitales.org/16728/que-es-peor-un-sistema-de-reconocimiento-facial-que-no-funciona-o-uno-que-si-lo-hace/

Registry.[806] No regulatory initiatives banning mass deployment of facial recognition technology were registered at the time of writing.

Lethal Autonomous Weapons

During the 2018 discussions of the Group of Governmental Experts (GGE) on lethal autonomous weapons (LAWS),[807] Chile issued a joint statement along with Austria and Brazil, which proposed to establish an open-ended GGE to negotiate a legally binding instrument to ensure meaningful human control over critical functions in LAWS.[808] In 2020, it also joined eight other Convention on Certain Conventional Weapons parties and reiterated the call for the development of a "normative and operational framework" for ensuring human control of LAWS.[809]

In October 2022, Chile was one of 70 states that endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an international framework of rules and constraints.[810] In this joint statement, States declared that they "are committed to upholding and strengthening compliance with International Law, in particular International

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[806] University of Chile, *Pandemic and technology: the risks of facial recognition and data management* (March. 31, 2020), https://www.uchile.cl/noticias/162239/pandemia-y-tecnologia-los-riesgos-del-reconocimiento-facial.

[807] Organization of the work of the Group of Governmental Experts (UN), *Group of Governmental Experts on emerging technologies in the area of lethal autonomous weapons systems (GGE LAWS) of the High Contracting Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects* (March 19, 2018), https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_(2018)/CCW_GGE.1_2018_2.pdf.

[808] Austria, Brazil and Chile, *Proposal for a Mandate to Negotiate a Legally-binding Instrument that Addresses the Legal, Humanitarian and Ethical Concerns Posed by Emerging Technologies in the Area of Lethal Autonomous Weapons Systems (LAWS)*, U.N. Doc. CCW/ GGE.2/2018/WP.7 (Aug. 30, 2018), https://reachingcriticalwill.org/disarmament-fora/ccw/2018/laws/documents.

[809] Austria, Belgium, Brazil, Chile, Ireland, Germany, Luxembourg, Mexico, and New Zealand, *Joint Commentary on Guiding Principles A, B, C and D (*Sept. 1, 2020), https://documents.unoda.org/wp-content/uploads/2020/09/GGE20200901-AustriaBelgium-Brazil-Chile-Ireland-Germany-Luxembourg-Mexico-and-New-Zealand.pdf.

[810] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly* (2022), https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[811]

In February 2023, Chile endorsed, along with more than 30 other Latin American and Caribbean states, the Belén Communiqué,[812] which calls for "urgent negotiation" of a binding international treaty to regulate and prohibit the use of autonomous weapons to address the grave concerns raised by removing human control from the use of force.

Still in February 2023, Chile participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Chile, together with other countries, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[813] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[814]

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[811] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

[812] Communiqué of the Latin American and the Caribbean Conference of Social and Humanitarian Impact of Autonomous Weapons (Feb. 24, 2023), https://www.rree.go.cr/files/includes/files.php?id=2261&tipo=documentos

[813] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

[814] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

ETech

In May 2022, in a global investigative report on the education technology (EdTech) endorsed by 49 governments, Chile, for children's education during the pandemic, Human Rights Watch conducted a technical and policy analysis of Aprendo in Linea in Chile. Human Rights Watch found that the government' endorsement of this EdTech put at risk or directly violated children's rights. The EdTech product sent children's data to AdTech companies. According to Human Rights Watch, in line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop, refine, and enforce modern child data protection laws and standards, and ensure that children who want to learn are not compelled to give up their other rights in order to do so.[815]

AI and Neurotechnology

In 2021, Chile became the first country in the world to provide constitutional protection for neuro-rights, which are recognized as a subset of human rights aimed at balancing out the potentially adverse effects of neurotechnologies.[816] Article 19 of the Chilean Constitution was amended by introducing the following provision: " Scientific and technological development will be at the service of people and will be carried out with respect for life and physical and psychological integrity. The law will regulate the requirements, conditions and restrictions for its use on people, especially safeguarding brain activity, as well as the information derived from it."[817]This guarantee is especially relevant in light of advances in the area of neuroscience and AI, such as brain-computer interfaces.[818] At the

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[815] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[816] McCay, A. *Neurorights: the Chilean constitutional change*, AI & Soc (2022). https://doi.org/10.1007/s00146-022-01396-0

[817] Law No 21383, *Amendments to the Fundamental Rights Charter to establish scientific and technological development at the service of people* (Oct. 25, 2021), https://www.bcn.cl/leychile/navegar?idNorma=1166983&idParte=10278855&idVersion=2021-10-25

[818] Yuste, Goering, Arcas et al., *Four ethical priorities for neurotechnologies and* AI, Nature 551, 159–163 (2017). https://doi.org/10.1038/551159a

time of writing, there have been no accounts of secondary legislation aimed at implementing the new constitutional guarantee.

Human Rights

In 2022, Freedom House ranked Chile as a "free" country with a score of 94/100,[819] with 38 out of 40 points earned for political rights and 56 out of 60 points scored for development with the civil liberties situation.[820]

Despite Chile's ratification of several human rights instruments,[821] some lingering issues remain with regard to human rights protection. Chile still has problems with incarceration conditions in detention facilities, and experiences cases of torture and brutality by law enforcement.[822] There are also reported cases of arbitrary or unlawful murders, as well as issues with the protection of the rights of women, indigenous population, LGBTQI+, migrants, and refugees.[823] In October 2020, following a series of protests and clashes with law enforcement authorities, more than 70% of citizens voted in favor of forming a constituent assembly to rewrite the constitution, unchanged since the dictatorship in the 1980s.

OECD AI Principles / G20 AI Guidelines

As an OECD member, Chile endorsed the OECD AI Principles,[824] referencing them on several occasions in AI-related documents, including the National AI Policy.[825] OECD has noted Chile's efforts in AI and data sharing, human capacity development within AI domain, promoting social

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[819] Freedom House, *Freedom in the World – Chile* (2022), https://freedomhouse.org/country/chile/freedom-world/2022

[820] Freedom House, *Freedom in the World 2022*, https://freedomhouse.org/country/chile/freedom-world/2022.

[821] UN Treaty Body Database, https://tbinternet.ohchr.org/_layouts/15/TreatyBodyExternal/Treaty.aspx?CountryID=35&Lang=EN.

[822] Human Rights Watch, *World Report 2022*, https://www.hrw.org/world-report/2022/country-chapters/chile

[823] Bureau of Democracy, Human Rights, and Labor, *2020 Country Reports on Human Rights Practices: Chile* (March 20, 2021), https://www.state.gov/reports/2020-country-reports-on-human-rights-practices/chile/#:~:text=Significant%20human%20rights%20issues%20included,%2C%20transgender%2C%20and%20intersex%20persons

[824] *Recommendation of the Council on Artificial Intelligence* (OECD/LEGAL/0449), (May 22, 2019), https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449

[825] See, for example, *Política Nacional de Inteligencia Artificial*, pp. 11, 29, 43.

dialogue on AI, creating a partnership with private sector on upskilling workforce for AI, international AI cooperation among others.[826]

Chile's AI policy vision also echoes several principles of the OECD AI Guidelines. For example, Chile's AI Policy, among others, refers to the principles of transparency and explainability of AI, human-centered AI, building human capacity for AI.

UNESCO Recommendations on Ethics of Artificial Intelligence

Chile is a UNESCO member and adopted the UNESCO Recommendation on the Ethics of AI during the 41st General Conference in November 2021.[827]

Evaluation

In recent years, Chile has made considerable progress towards developing legislative and policy frameworks in data protection and AI and aligning them with international standards. Chile's efforts in introducing international AI practices and visions into the National AI Policy, among which a human-centered approach to AI, a dialogue with civil society about AI's risks and opportunities, international cooperation on AI, are to commended. There are however areas of improvement, including the pressing need to finalize Chile's data protection law reform, establish a regulatory oversight agency with adequate enforcement powers, and implement enforceable standards in algorithmic transparency. A key area of risk that can undermine Chile's ambitious AI agenda based on respect for human rights relates to the proliferation of intrusive and reportedly inefficient facial recognition technologies in public spaces.

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[826] See, for example, *State of Implementation of the OECD AI Principles: Insights from National AI Policies* (June 18, 2021), pp. 11, 14, 18, 65, https://www.oecd-ilibrary.org/docserver/1cd40c44-en.pdf?expires=1647419045&id=id&accname=guest&checksum=CC95B62D890EEAC54807932E09B3A523

[827] UNESCO, *Recommendations on Ethics of AI* (2021), https://www.unesco.org/en/artificial-intelligence/recommendation-ethics

China

National AI Strategy

Since 2013, the Chinese government has published several national-level policies, guidelines, and action plans, which reflect the intention to develop, deploy, and integrate AI in various sectors. In 2015, Prime Minister Li Keqiang launched the "Made in China" (MIC 2025) initiative aimed at turning the country into a production hub for high-tech products within the next few decades. In the same year, the State Council released guidelines on China's Internet + Action plan. It sought to integrate the internet into all elements of the economy and society. The document emphasized the importance of cultivating emerging AI industries and investing in research and development. The Central Committee of the Communist Party of China's 13th 5-year plan is another notable example. The document mentioned AI as one of the six critical areas for developing the country's emerging industries and as an essential factor in stimulating economic growth. Robot Industry Development Plan,[828] Special Action of Innovation and Development of Smart Hardware Industry,[829] and Artificial Intelligence Innovation Action Plan for Higher Institutions[830] illustrate detailed action plans and guidelines concerning specific sectors.

Most notable of all is the New Generation Artificial Intelligence Development Plan (AIDP) – an ambitious strategy to make China the world leader in AI by 2030 and the most transparent and influential indication of China's AI strategy's driving forces. China's State Council issued the AIDP in 2017. According to the Plan, AI should be used in a broad range of sectors, including defense and social welfare. The AIDP also indicates the need to develop standards and ethical norms for the use of AI. The actual innovation and transformation are expected to be driven by the private sector and local governments.[831] The Chinese government has handpicked three major tech giants to focus on developing specific sectors of AI, Baidu,

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[828] 机器人产业发展规划（2016-2020年）
https://www.ndrc.gov.cn/xxgk/zcfb/ghwb/201604/t20160427_962181.html
[829] 智能硬件产业创新发展专项行动 (2016-2018 年) http://www.gov.cn/xinwen/2016-09/21/content_5110439.htm
[830] 高等学校人工智能创新行动计划
http://www.moe.gov.cn/jyb_xwfb/xw_fbh/moe_2069/xwfbh_2018n/xwfb_20180608/201806/t20180608_338911.html
[831] 3-year plan promoting the AIDP (2018–2020) emphasizes coordination between provinces and local governments.

Alibaba, and Tencent.[832] In return, these companies receive preferential contract bidding, more convenient access to finance, and sometimes market share protection.

Following the AIDP, the Ministry of Science and Technology published the New Generation Artificial Intelligence Development Code of Ethics (Code of Ethics).[833] The New Generation AI Governance Professional Committee, consisting of experts from academics and the industry,[834] created the Code of Ethics and is responsible for its implementation. The Code of Ethics aims to "thoroughly implement the AIDP, refine the principles of AIDP, enhance society's awareness and behavioural consciousness of AI ethics, actively guide responsible AI research, development, and application activities, as well as promote the healthy development of AI." The Code of Ethics highlights six fundamental ethical requirements, including (1) "improving human well-being," (2) "promoting fairness and justice," (3) "protecting privacy and security," (4) "ensuring controllability, and trustworthiness," (5) "strengthening responsibility," and (6) "improving ethical literacy," taking into ethical issues of privacy, biases, discrimination, and fairness into consideration.[835] Thus, the Code of Ethics marks a step forward at the national level to develop ethical guidelines and principles for Artificial Intelligence.

Regarding local governments, there is a system of incentives for fulfilling national government policy aims. For this reason, local governments often become a testing ground for the central government's policies. Chinese cities and provinces, as well as regional administrations, compete for the new AI incentives. Large metropolises, such as Tianjin and Shanghai, have already launched multi-billion-dollar AI city Venture Capital funds and converted entire districts and islands for new AI companies. Shenzhen and Shanghai have taken the lead to create policies and standards for the Artificial Intelligence industry in China at the provincial level. Coming into effect on 1 November 2022, the Regulations

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[832] Meng Jing and Sarah Dai, _China recruits Baidu, Alibaba and Tencent to AI 'national team,'_ South China Morning Post (Nov. 21, 2017), https://www.scmp.com/tech/china-tech/article/2120913/china-recruits-baidu-alibaba-and-tencent-ai-national-team

[833] Ministry of Science and Technology, _New Generation Artificial Intelligence Development Code of Ethics_ (Sept. 26, 2021) https://www.safea.gov.cn/kjbgz/202109/t20210926_177063.html

[834] Intelligent Hardware, _The National Artificial Intelligence Governance Professional Committee was established, which composed of academic and business personnel_ (June 9, 2020) https://www.21ic.com/article/775428.html

[835] Ministry of Science and Technology of the People's Republic of China, _New Generation Artificial Intelligence Development Code of Ethics_ (Sept. 26, 2021) https://www.safea.gov.cn/kjbgz/202109/t20210926_177063.html

on the Promotion of Artificial Intelligence Industry in Shenzhen, in particular, marks the birth of the country's first regulation on the AI industry[836]. Shanghai, in the meantime, published Regulations of Shanghai on Promoting the Development of Artificial Intelligence Industry, coming into effect on 1 October 2022.[837] The two Regulations aim to promote the innovation and development of the AI industry in their provinces for the benefit of citizens, society, and the economy. Both Regulations establish mechanisms, Committees of AI Ethics, to develop AI ethics policy and standards as well as provide guidance on AI ethics.

The establishment of the New Generational AI Governance Professional Committee at the national level and Committees of AI Ethics at the provincial level embodies the creation of a monitoring regime for the guidance and supervision of AI and AI ethics. The impact of the oversight of AI in policy implementation processes as well as the level of independence of these mechanisms remain unclear.

AI Ethics

Despite widely reported cases of unethical use of AI in China, the Chinese authorities, private companies, and academia have been active in the global trend towards formulating and issuing statements on AI ethics. The AIDP goes as far as to outline a specific desire for China to become a world leader in defining ethical norms and standards for AI.[838] There has been a recent wave of attempts to define ethical standards by both government bodies and private companies.

In 2017, China's Artificial Intelligence Industry Alliance (AIIA), released a draft "joint pledge" on self-discipline in the artificial intelligence (AI) industry - emphasizing AI ethics, safety, standardization, and international engagement.[839]

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[836] Shenzhen Municipal People's Congress Standing Committee, *Regulations on the Promotion of Artificial Intelligence Industry in Shenzhen* (Sept. 5, 2022) http://www.szrd.gov.cn/rdlv/chwgg/content/post_834228.html

[837] Shanghai Municipal People's Congress Standing Commitee, Regulations of Shanghai on Promoting the Development of Artificial Intelligence (Sept. 22, 2022) http://www.shrd.gov.cn/n8347/n8467/u1ai248931.html

[838] *China's 'New Generation Artificial Intelligence Development Plan'* (July 20, 2017) (English translation), https://www.newamerica.org/cybersecurity-initiative/digichina/blog/full-translation-chinas-new-generation-artificial-intelligence-development-plan-2017/

[839] *Chinese AI Alliance Drafts Self-Discipline 'Joint Pledge'* (June 17, 2019) (English translation) https://www.newamerica.org/cybersecurity-initiative/digichina/blog/translation-chinese-ai-alliance-drafts-self-discipline-joint-pledge/

In 2019, the Beijing Academy of Artificial Intelligence (BAAI) released the Beijing AI Principles[840] to be followed for the research and development, use, and governance of AI. The Beijing Principles are centered around doing good for humanity, using AI "properly," and having the foresight to predict and adapt to future threats. But just like other principles presented, they are still very vague.

In line with these principles, Governance Principles for Developing Responsible Artificial Intelligence[841] was prepared in 2019, by the National New Generation Artificial Intelligence Governance Expert Committee which was established by China's Ministry of Science and Technology. This document outlines eight principles for the governance of AI: harmony and friendliness, fairness and justice, inclusivity, and sharing, respect for human rights and privacy, security, shared responsibility, open collaboration, and agility to deal with new and emerging risks. Above all else, AI development should begin by enhancing the common well-being of humanity, states the document.

Another important document is a white paper on AI standards[842] released in 2018 by the Standardization Administration of the People's Republic of China, the national-level body responsible for developing technical standards. Three key principles for setting the ethical requirements of AI technologies are (1) the ultimate goal of AI is to benefit human welfare; (2) transparency and the need to establish accountability as a requirement for both the development and the deployment of AI systems and solutions; (3) protection of intellectual property.

In April 2022, China published "Opinions on Strengthening the Management of Science and Technology Ethics,"[843] which is the first national policy on tech ethics. The document proposes five principles ont how to supervise and review technology ethics. It calls for the establishment

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[840] Beijing Principles, https://www.baai.ac.cn/news/beijing-ai-principles-en.html

[841] *Chinese Expert Group Offers 'Governance Principles' for 'Responsible AI'* (June 17, 2019) (English translation) https://www.newamerica.org/cybersecurity-initiative/digichina/blog/translation-chinese-expert-group-offers-governance-principles-responsible-ai/

[842] Jeffrey Ding and Paul Triolo, *Translation: excerpts from China's 'White Paper on Artificial Intelligence Standardization,'* New America (June 20, 2018) https://www.newamerica.org/cybersecurity-initiative/digichina/blog/translation-excerpts-chinas-white-paper-artificial-intelligence-standardization/

[843] General Office of the CPC Central Committee General Office of the State Council, *Opinions on Strengthening the Management of Science and Technology Ethics (*March 20, 2022) http://www.gov.cn/gongbao/content/2022/content_5683838.htm

of the China Science and Technology Ethics Society and ethical supervision in AI research.

It is apparent that these principles bear some similarities to the OECD AI Principles. Nevertheless, the principles established in China place a greater emphasis on social responsibility, community relations, national security, and economic growth, with relatively less focus on individual rights. However, establishing ethical AI principles can be viewed as a first step and a signal that China wishes to become engaged in a dialogue with international partners.

Economic Development

The AIDP promotes and highlights the reconstruction of economic activities using AI as the driving force behind a new round of industrial transformation, which will "inject new kinetic energy into China's economic development."[844] Guiding Opinions on Promoting Integration of AI and Real Economy further specify that with high integration and strong empowerment, AI is expected to boost the transition of China's economy from high-speed development to high-quality development. President Xi has frequently spoken of the centrality of AI to the country's overall economic development.[845]

Notably, the Chinese government is better prepared than many other countries for the longer-term challenges of automation.[846] For instance, there are higher education courses that address the shortage in AI skills and support the skilled labor required in the information age.[847] China has oriented its education system to prioritize high proficiency in science, technology, and engineering[848] and has issued several policy directives

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[844] New America, *China's 'New Generation Artificial Intelligence Development Plan'* (English translation) (2017), https://www.newamerica.org/cybersecurity-initiative/digichina/blog/full-translation-chinas-new-generation-artificial-intelligence-development-plan-2017/

[845] Jeffrey Ding, *Deciphering China's AI dream*. Centre for Governance of AI, Future of Humanity Institute, University of Oxford, Oxford, https://www.fhi.ox.ac.uk/wp-content/uploads/Deciphering_Chinas_AI-Dream.pdf Elsa B Kania, *China's embrace of AI: Enthusiasm and challenges,* European Council on Foreign Relations (Nov. 6, 2018), https://ecfr.eu/article/commentary_chinas_embrace_of_ai_enthusiasm_and_challenges/

[846] The Automation Readiness Index: *Who is Ready for the Coming Wave of Automation?* (2018) The Economist Intelligence Unit. https://www.automationreadiness.eiu.com/static/download/PDF.pdf

[847] Fang A (2019*), Chinese colleges to offer AI major in challenge to US*. Nikkei Asian Review. https://asia.nikkei.com/Business/China-tech/Chinese-colleges-to-offer-AI-major-in-challenge-to-US

[848] *Is China ready for intelligent automation?* (2018) China Power, Center for Strategic and International Studies. https://chinapower.csis.org/china-intelligent-automation/

toward this end.[849] According to China's New Generation of AI Development Report 2020, in 2019, 180 Chinese universities added AI, undergraduate majors. Among them, 11 universities, including Peking University, established new academic institutes designated for AI research.

According to the 2022 policy "Building a New Generation of Artificial Intelligence Demonstration Application Scenarios,"[850] the Chinese government will cooperate with companies in the fields of transportation, agriculture, education, and law. Because it is difficult for companies to influence public services, cooperation between the government and companies can create a larger market for companies.

Public Participation

There is a growing concern in China about the misuse of personal data and the risk of data breaches. In a 2018 survey by the Internet Society of China, 54% of respondents stated that they considered the problem of personal data breaches as "severe."[851] The World Economic Forum suggests that 2018-2019 "could be viewed as the time when the Chinese public woke up to privacy." According to the WEF, a controversy arose in 2019 when the Zao app, using AI and machine learning techniques, allowed users to swap faces with celebrities in movies or TV shows.[852] "It went viral as a tool for creating deepfakes, but concerns soon arose as people noticed that Zao's user agreement gave the app the global rights to use any image or video created on the platform for free." The company later clarified that the app would not store any user's facial information. Chinese consumers also challenged Alibaba when they learned that they had been enrolled in a credit scoring system by default and without consent. "Under pressure, Alibaba apologized."

At the 2022 World Artificial Intelligence Conference, the Shanghai Artificial Intelligence Laboratory Governance Research Center, Tsinghua University, and Fudan University jointly launched an open platform for

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[849] the National Medium- and Long-term Education Reform and Development Plan (2010-2020),

[850]China's Ministry of Science and Technology, *Building a New Generation of Artificial Intelligence Demonstration Application Scenarios* (July 29, 2022), http://www.gov.cn/zhengce/zhengceku/2022-08/12/content_5705154.htm

[851] Technology Review, *China's citizens do care about their data privacy, actually* (Mar. 28, 2018), https://www.technologyreview.com/2018/03/28/67113/chinas-citizens-do-care-about-their-data-privacy-actually/

[852] World Economic Forum, *China is waking up to data protection and privacy. Here's why that matters* (Nov. 12, 2019), https://www.weforum.org/agenda/2019/11/china-data-privacy-laws-guideline/

artificial intelligence ethics – OpenEGLab.[853] There are five major sections in the platform including rule sets, governance maps, risk displays, evaluation frameworks, and industry solutions. The rule set is dedicated to building a global governance knowledge base. Currently, about 1,500 marked rule documents have been included, including ethical principles, policy strategies, laws, regulations, and standards.

Data Protection

In recent years, China has introduced a number of major data protection laws, including the Personal Information Protection Law (PIPL) (effective from November 1, 2021) and the Data Security Law (DSL) (effective from September 1, 2021), together with a series of implementation regulations and administrative rules. The PIPL[854] establishes a new comprehensive regulatory framework for personal information protection in China, requiring consents as its principal basis for data collection and handling, introducing provisions with extraterritorial effect, restricting cross border data transfers and imposing significant revenue-based fines for non-compliant conduct. The law is modeled after the EU GDPR[855] however the law places a greater emphasis on how private companies may collect and use data rather than the use of data by authorities. For instance, Article 26 on personal images and facial recognition allows the collection of unlimited amounts of personal data so long as it is done "for the purpose of safeguarding public security."[856] That is to say, the law does not limit the government's ability to collect or store biometric data obtained through facial recognition. In contrast, the EU GDPR sees personal images as sensitive biometric data and requires Data Protection Impact Assessment (DPIA) for facial recognition technology. Finally, the law does not assign responsibilities when it comes to

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[853] Sina finance,*"Dandelion" artificial intelligence governance open platform OpenEGLab unveiled at the World Artificial Intelligence Conference* (Sept., 20, 2022) https://finance.sina.com.cn/jjxw/2022-09-02/doc-imizmscv8823494.shtml?cref=cj

[854] *The PRC Personal Information Protection Law (Final): A Full Translation*, China Briefing (Aug. 24, 2021), https://www.china-briefing.com/news/the-prc-personal-information-protection-law-final-a-full-translation/

[855] Gabriela Zanfir-Fortuna, *China's Draft Personal Information Protection Law in 13 Key Points,* the StartUp (Nov. 3, 2020), https://medium.com/swlh/chinas-draft-personal-information-protection-law-in-13-key-points-5a9b9cdcf02c Gil Zhang and Kate Yin, *A look at China's draft of Personal Data Protection Law*, IAPP (Oct. 26, 2020), https://iapp.org/news/a/a-look-at-chinas-draft-of-personal-data-protection-law/

[856] *The PRC Personal Information Protection Law (Final): A Full Translation*, China Briefing (Aug. 24, 2021), https://www.china-briefing.com/news/the-prc-personal-information-protection-law-final-a-full-translation/

government entities that collect personal data, and who will be held responsible when it leaks. This becomes increasingly important with the rise of recent incidents of government leaks of the personal information of its citizens.[857] Nevertheless, as the big data industry has been rapidly growing in China, the law provides more protection to users against unwanted data collection by private companies.

Algorithmic Transparency

Regarding algorithmic transparency, the Provisions on the Management of Algorithmic Recommendations in Internet Information Services[858] highlight the principles of "openness" and "transparency" while establishing legal liabilities for violations of these principles. Article 4 Chapter I emphasizes that "the provision of algorithm recommendation services shall comply with laws and regulations, respect social morality and ethics, abide by business ethics and professional ethics, and follow the principles of fairness, openness and transparency, scientific reasonableness, and good faith." Chapter V establishes clear legal liability for non-compliance to and violation of the Provisions, including "the suspension of information updates and a fine of between 10,000 and 10,000 RMB, administration punishments or sanctions such as ordering the closure of websites, revoking relevant business permits, or revoking business licenses."

Article 24 Chapter II, Section 1 of the PIPL provides, "Where personal information processors use personal information to make automatic decisions, the transparency of decision-making and the fairness and justice of the results shall be ensured, and shall not impose unreasonable differential treatment on individuals in terms of transaction price and other transaction conditions.

Where business marketing and information push are carried out through automatic decision-making, options not based on his/her personal

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[857] *China, coronavirus and surveillance: the messy reality of personal data, Financial Times* (Apr. 2, 2020), https://www.ft.com/content/760142e6-740e-11ea-95fe-fcd274e920ca ; Paul Mozur, *China, Desperate to Stop Coronavirus, Turns Neighbor Against Neighbor,* The New York Times (Feb. 3, 2020), https://www.nytimes.com/2020/02/03/business/china-coronavirus-wuhan-surveillance.html ; Personal data leaks spread along with coronavirus panic, TechNode, https://technode.com/2020/02/03/wuhan-data-leak-coronavirus/
[858] The Cyber Administration of China, the Ministry of Information and Industry Technology, the Ministry of Public Security of the People's Republic of China, and State Administration for Market Regulation, *Provisions on the Management of Algorithmic Recommendations in Internet Information Services* (Dec. 31, 2021) http://www.cac.gov.cn/2022-01/04/c_1642894606364259.htm

characteristics shall be provided at the same time, or a convenient way for individual's to reject shall be provided.

Where automatic decision-making has a significant impact on individual's rights and interests, he/she has the right to require the personal information processor to give an explanation, and to reject the decision made by the personal information processor only through automatic decision-making."[859]

Social Governance

Social governance is another area in which AI is promoted as a strategic opportunity for China. The Chinese authorities focus on AI as a way of overcoming social problems and improving the welfare of citizens.[860] Specifically, in the healthcare reform,[861] environmental protection[862], the administration of justice,[863] and Social Credit System or Social Score.[864] Another concrete example of how China is using AI in social governance can be seen in the sphere of internal security and policing. China has been at the forefront of the development of smart cities equipped with surveillance technologies, such as facial recognition and cloud computing. A recent proposal for the southwestern Chinese city of Chongqing would put "AI in charge."[865] Today half of the world's smart

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[859] _The PRC Personal Information Protection Law (Final): A Full Translation_, China Briefing (Aug. 24, 2021), https://www.china-briefing.com/news/the-prc-personal-information-protection-law-final-a-full-translation/

[860] Heilmann, _Big data reshapes China's approach to governance_, Financial Times (2017), https://www.ft.com/content/43170fd2-a46d-11e7-b797-b61809486fe2

[861] Ho A, _AI can solve China's doctor shortage. Here's how_, World Economic Forum (2018), https://www.weforum.org/agenda/2018/09/ai-can-solve-china-s-doctor-shortage-here-s-how/

[862] Kostka and Zhang, _Tightening the grip: environmental governance under Xi Jinping_, Environ Politics (2018), 27(5):769–781, https://doi.org/10.1080/09644 016.2018.1491116; _AI-powered waste management underway in China_, People's Daily Online (2019), http://en.people.cn/n3/2019/0226/c98649-9549956.html

[863] Finder, _China's master plan for remaking its courts_, The Diplomat (2015), https://thediplomat.com/2015/03/chinas-master-plan-for-remaking-its-courts/ ; Li A, _Centralization of power in the pursuit of law-based governance: legal reform in China under the Xi Administration_, China Prospect (2016), https://www.proquest.com/openview/90decf000a9bb78a34628047caad47b0/1.pdf?cbl=2 030684&loginDisplay=true&pq-origsite=gscholar

[864] Severine Arsene, _China's Social Credit System: A Chimera with Real Claws, Asie Visions_ (2019), https://www.ifri.org/sites/default/files/atoms/files/arsene_china_social_credit_system_20 19.pdf

[865] Umberto Bacchi, _'I know your favorite drink': Chinese smart city to put AI in charge_, Reuters (Dec. 5, 2020), https://news.trust.org/item/20201203131328-4n7

cities are located in China. Thus, these ambitious goals exemplify the Chinese government's intent to rely on AI technology for social governance and also to control the behavior of its citizens.

Facial Recognition

As early as the 2008 Beijing Olympics, China began to deploy new technologies for mass surveillance.[866] China put in place more than two million CCTV cameras in Shenzen, making it the most-watched city in the world.[867] In recent years, the techniques for mass surveillance have expanded rapidly, most notably in Shenzen, also to oversee the Muslim minority group the Uyghurs, and in Hong Kong. Modern systems for mass surveillance rely on AI techniques for such activities as facial recognition, communications analysis, and location tracking. As one industry publication has reported, "In the world of surveillance, no country invests more in its AI-fueled startups and growth-stage businesses than China. And no technology epitomizes this investment more than facial recognition—a technology that courts more controversy than almost any other."[868] Forbes continues, "But a thriving domestic tech base has done nothing to quell the concerns of citizens. China is held up as a Big Brother example of what should be avoided by campaigners in the West, but that doesn't help people living in China."

However, the Supreme People's Court of the People's Republic of China adopted and released the Provisions on Several Issues Concerning the Application of Law in the Trial of Civil Cases Relating to the Use of Facial Recognition Technology to Process Personal Information, which came into effect on August 1, 2021.[869] The Provisions aim to "hear civil cases relating to the use of facial recognition technology in processing

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[866] EPIC, *Privacy International, Privacy and Human Rights: An International Survey of Privacy Laws and Developments* (Report on People's Republic of China) (2006), http://www.worldlii.org/int/journals/EPICPrivHR/2006/PHR2006-People_s.html

[867] Naomi Wolf, *China's All-Seeing Eye With the help of U.S. defense contractors, China is building the prototype for a high-tech police state. It is ready for export*, Rolling Stone (May 15, 2018), https://www.commondreams.org/views/2008/05/15/chinas-all-seeing-eye

[868] Zak Doffman, *Hong Kong Exposes Both Sides Of China's Relentless Facial Recognition Machine* (Aug. 26, 2019), https://www.forbes.com/sites/zakdoffman/2019/08/26/hong-kong-exposes-both-sides-of-chinas-relentless-facial-recognition-machine/

[869] The Supreme People's Court of the People's Republic of China (中华人民共和国最高人民法院), *Provisions on Several Issues Concerning the Application of Law in the Trial of Civil Cases Relating to the Use of Facial Recognition Technology to Process Personal Information* (July 27, 2021), http://gongbao.court.gov.cn/Details/118ff4e615bc74154664ceaef3bf39.html

personal information, protect the lawful rights and interests of litigants, and promote the healthy development of the digital economy", in accordance with "Provisions of the Civil Code of the People's Republic of China, the Cybersecurity Law of the People's Republic of China, the Law of the People's Republic of China on the Protection of Consumer Rights and Interests, the E-Commerce Law of the People's Republic of China, the Civil Procedure Law of the People's Republic of China, and other laws, and in conjunction with trial practice."

In particular, the Supreme People's Court highlights that the Provisions apply to civil cases arising from violations of the provisions of laws, administrative regulations, or the agreement of both parties to process facial information, which refers to "biometrics information" or facial information generated through facial recognition technologies.[870] In this regard, the Provisions establish civil liabilities for the infringement of the rights and interests of natural persons in the process of biometrics data and information in the application of facial recognition technologies, which was republished and redistributed by local People's Courts.[871] Before the enforcement of the Provisions regulating facial recognition technology, the China Academy for Information and Communications Technology (CAICT), a national think tank administrated by the Ministry of Industry and Information Technology, initiated the "Trustworthy Facial Recognition Protection Plan" in response to issues including "privacy leakage, technology abuse, biases and discrimination" in the development and application of facial recognition technologies while encouraging self-discipline of the industry.[872]

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[870] Ibid.

[871] Henan Provincial Higher People's Court, _Provisions of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Civil Cases Related to the Use of Facial Recognition Technology to Process Personal Information_ (Jan. 29, 2022), http://pdszhfy.hncourt.gov.cn/public/detail.php?id=3181, Panshan County People's Court of Liaoning Province, _Provisions of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Civil Cases Related to the Use of Facial Recognition Technology to Process Personal Information_ (Oct. 29, 2021), http://pjps.lncourt.gov.cn/article/detail/2021/10/id/6337395.shtml

[872] China Academy of Information and Communications Technology, _In the era of "face brushing", how to "protect face", the China Academy of Information and Communications Technology proposed to launch the "Trusted Face Recognition Guardian Program" to solicit participants_ (March 18, 2021), http://www.caict.ac.cn/xwdt/ynxw/202103/t20210318_371332.html

There are many reports on China's use of facial recognition technology against ethnic minorities.[873] The discriminatory ways in which state organs, companies, and academics have researched, developed, and implemented facial recognition in China would seem not to comply with the OECD AI Principles or the Governance Principles for the New Generation Artificial Intelligence. The deployment of facial recognition has also provoked opposition within China.[874] This gap between stated ethical principles and on-the-ground applications of AI demonstrates the weakness of unenforceable ethics statements.[875]

In September 2019, China's information-technology ministry announced that telecom carriers must scan the face of anyone applying for mobile and internet service.[876] There are over 850 million mobile Internet users in China. Meanwhile, the Hong Kong government invoked emergency powers in October 2019 to ban demonstrators from wearing face masks.[877]

Protests in Hong Kong over the use of facial surveillance are widespread. Umbrellas once used to deflect pepper spray, are now deployed to shield protester activities from the digital eyes of cameras.[878] It is notable that the battle over the use of facial surveillance in Hong Kong began with widespread public protests about a national security law that extended police authority over the semi-autonomous region.[879] According to the AP, "Young Hong Kong residents protesting a proposed extradition law that would allow suspects to be sent to China for the trial are seeking to

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[873] Joi Ito, *My talk at the MIT-Harvard Conference on the Uyghur Human Rights Crisis* (May 2, 2019), https://joi.ito.com/weblog/2019/05/02/my-talk-at-the-.html.

[874] Seungha Lee, *Coming into Focus: China's Facial Recognition Regulations,* Center for Strategic and International Studies (May 4, 2020), https://www.csis.org/blogs/trustee-china-hand/coming-focus-chinas-facial-recognition-regulations

[875] See the section of this country report, AI and Surveillance.

[876] Jane Li, *Getting a new mobile number in China will involve a facial-recognition test*, Quartz (Oct. 3, 2019), https://qz.com/1720832/china-introduces-facial-recognition-step-to-get-new-mobile-number/

[877] Ilara Maria Sala, *Hong Kong is turning to a 1922 law that was used to quell a seamen's strike to ban face masks,* Quartz (Oct. 4, 2019), https://qz.com/1721951/anti-mask-law-the-1922-origins-of-hong-kongs-emergency-powers/

[878] Paul Mozur and Lin Qiqing, *Hong Kong Takes Symbolic Stand Against China's High-Tech Controls*, New York Times (Oct. 3, 2019), https://www.nytimes.com/2019/10/03/technology/hong-kong-china-tech-surveillance.html

[879] BBC, *Hong Kong security law: What is it and is it worrying*? (June 30, 2020), https://www.bbc.com/news/world-asia-china-52765838

safeguard their identities from potential retaliation by authorities employing mass data collection and sophisticated facial recognition technology."[880]

China is also exporting the model of mass surveillance by facial recognition to other parts of the world. A detailed report, published in _The Atlantic_ in September 2020, stated that "Xi Jinping is using artificial intelligence to enhance his government's totalitarian control—and he's exporting this technology to regimes around the globe."[881] According to _The Atlantic,_ "Xi's pronouncements on AI have a sinister edge. Artificial intelligence has applications in nearly every human domain, from the instant translation of spoken language to early viral outbreak detection. But Xi also wants to use AI's awesome analytical powers to push China to the cutting edge of surveillance. He wants to build an all-seeing digital system of social control, patrolled by precog algorithms that identify potential dissenters in real-time."

In September 2020, the United States State Department issued voluntary guidelines for American companies "to prevent their products or services (…) from being misused by government end-users to commit human rights abuses."[882] The report comes amid growing concern that China is rapidly exporting its own surveillance capabilities to authoritarian regimes around the world, as part of its Belt and Road Initiative (BRI).[883] But the Washington Post recently highlighted the ongoing role of US-made technology in the sweeping surveillance of China, and notably the Uighur Muslim minority.[884] The Washington Post explained that "the aim is to monitor cars, phones, and faces — putting together patterns of behavior for

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[880] Christopher Bodeen, _Hong Kong protesters wary of Chinese surveillance technology_ (June 13, 2019), https://apnews.com/article/028636932a874675a3a5749b7a533969

[881] Ross Anderson, _The Panopticon is Already Here_, The Atlantic (Sept. 2020), https://www.theatlantic.com/magazine/archive/2020/09/china-ai-surveillance/614197/

[882] U.S. Department of State, Bureau of Democracy, Human Rights, and Labor, _U.S. Department of State Guidance on Implementing the "UN Guiding Principles" for Transactions Linked to Foreign Government End-Users for Products or Services with Surveillance Capabilities_ (Sept. 30, 2020), https://www.state.gov/key-topics-bureau-of-democracy-human-rights-and-labor/due-diligence-guidance/

[883] Abhijnan Rej, _US Issues Human Rights Guidelines for Exporters of Surveillance Tech: The directions to American businesses come amid growing concern around China's export of advanced mass-surveillance capabilities to more than 60 countries_, The Diplomat (Oct. 2, 2020), https://thediplomat.com/2020/10/us-issues-human-rights-guidelines-for-exporters-of-surveillance-tech/

[884] The Washington Post, Editorial, _U.S.-made technologies are aiding China's surveillance of Uighurs. How should Washington respond?_ (Nov. 28, 2020), https://www.washingtonpost.com/opinions/us-made-technologies-are-aiding-chinas-surveillance-of-uighurs-how-should-washington-respond/2020/11/26/0218bbb4-2dc9-11eb-bae0-50bb17126614_story.html

'predictive policing' that justifies snatching people off the street for imprisonment or so-called reeducation. This complex opened four years ago, and it operates on the power of chips manufactured by U.S. supercomputer companies Intel and Nvidia." The Post editorial followed a New York Times investigation which found extensive involvement by U.S. firms in the Chinese surveillance industry.[885]

AI and Public Health

In China, the ultimate ambition of AI is to liberate data for public health purposes. The AIDP, outlines the ambition to use AI to "strengthen epidemic intelligence monitoring, prevention and control," and to "achieve breakthroughs in big data analysis, Internet of Things, and other key technologies" for the purpose of strengthening intelligent health management. The State Council's 2016 official notice on the development and use of big data in the healthcare sector, also explicitly states that health and medical big data sets are a national resource and that their development should be seen as a national priority to improve the nation's health.[886] However, there is a rising concern that relaxed privacy rules and the transfer of personal data between government bodies will promote the collection and aggregation of health data without the need for individual consent.[887] Some experts warn that this concept of public health and social welfare in China will diminish already weak safeguards for personal data.

Use of AI in Covid-19 Response

In June 2020, the State Council released a White Paper, entitled "Fighting COVID-19: China in Action," which provides that China has "fully utilized" artificial intelligence to not only research, analyze, and forecast COVID-19 trends and developments, but also to track infected persons, identify risk groups, and facilitate the resumption of normal

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[885] Paul Mazur and Don Clark, *China's Surveillance State Sucks Up Data. U.S. Tech Is Key to Sorting It: Intel and Nvidia chips power a supercomputing center that tracks people in a place where government suppresses minorities, raising questions about the tech industry's responsibility* (Nov. 22, 2020),
https://www.nytimes.com/2020/11/22/technology/china-intel-nvidia-xinjiang.html
[886] Zhang Zhihao, China to focus on innovation to boost economy, lives, China Daily (Sept. 1, 2018),
https://www.chinadaily.com.cn/a/201801/09/WS5a543bd5a31008cf16da5fa9.html
[887] Huw Roberts, Josh Cowls, Jessica Morley, Mariarosaria Taddeo, Vincent Wang, Luciano Floridi, *The Chinese approach to artificial intelligence: an analysis of policy, ethics, and regulation*, AI and Society (June 17, 2020),
https://link.springer.com/article/10.1007/s00146-020-00992-2

business operations."[888] During the pandemic, China has used AI for surveillance of infected individuals and medical imaging. China also sought to reduce human interaction by using computers and robots for various purposes and has proven to be very effective in reducing exposure, providing necessary services such as assistance for healthcare professionals, improving efficiency in hospitals, and precautionary measures for returning to normal business operations.[889]

Lethal Autonomous Weapons

The AIDP states that "the development of AI [is] (…) a major strategy to enhance national competitiveness and protect national security" and that China will "[p]romote all kinds of AI technology to become quickly embedded in the field of national defense innovation."

At the 8th Beijing Xiangshan Forum (BXF),[890] China's major platform for international security and defense dialogue, Major General Ding Xiangrong, Deputy Director of the General Office of China's Central Military Commission, stated that China's military goals are to use AI to advance Chinese military.[891] Zeng Yi, a senior executive at China's third-largest defense company, predicted that by 2025 lethal autonomous weapons, and military command decision-making would be commonplace. He also mentioned that the ever-increasing military use of AI is "inevitable." He emphasized that military AI would replace the human brain and exercise independent judgment. "AI may completely change the current command structure, which is dominated by humans" to one that is dominated by an "AI cluster." These sentiments are shared by academics from the People's Liberation Army (PLA) who believe that AI will be used to predict battlefield situations and outpace human decision-making.[892]

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[888] *Full Text: Fighting COVID-19: China in Action," Xinhua News via the State Council* (June 7, 2020), https://archive.vn/NYJQg

[889] Emily Weinstain, *China's use of AI in its Covid-19 Response,* the Center for Security and Emerging Technology (Aug. 2020), https://cset.georgetown.edu/research/chinas-use-of-ai-in-its-covid-19-response/

[890] Rajeev Ranjan Chaturvedy, *Beijing Xiangshan Forum and the new global security landscape*, EastAsiaForum (Dec. 1, 2018), https://www.eastasiaforum.org/2018/12/01/beijing-xiangshan-forum-and-the-new-global-security-landscape/

[891] Elsa Kania, *AlphaGo and Beyond: The Chinese Military Looks to Future 'Intelligentized' Warfare*, Lawfare (June 5, 2017), https://www.lawfareblog.com/alphago-and-beyond-chinese-military-looks-future-intelligentized-warfare

[892] Kania, 杀手锏 and 跨越发展: trump cards and leapfrogging, Strategy Bridge (2017), https://thestrategybridge.org/the-bridge/2017/9/5/-and-trump-cards-and-leapfrogging

China's Ministry of National Defense has established two major new research organizations focused on AI and unmanned systems: the Unmanned Systems Research Center (USRC) and the Artificial Intelligence Research Center (AIRC).[893] According to some experts, China is pursuing the most aggressive strategy for developing AI for military uses among the major military powers.[894] In the spring of 2017, a civilian Chinese university with ties to the military demonstrated an AI-enabled swarm of 1,000 uninhabited aerial vehicles at an airshow. A media report released after the fact showed a computer simulation of a similar swarm formation finding and destroying a missile launcher. Open-source publications indicate that China is also developing a suite of AI tools for cyber operations.

With regard to its official position on Lethal Autonomous Weapons, China maintains that both the common security and the dignity of mankind should be safeguarded. In the discussion of the 2022 Group of Governmental Experts on Lethal Autonomous Weapons Systems (LAWS),[895] China published the Working Paper of the People's Republic of China on Lethal Autonomous Weapons Systems.[896] The Working Paper highlights the need for balancing both "national security" and "humanitarian concerns" in regulating the use of LAWS. The Working Paper also points out that "military applications of AI should be conducive to improving the humanitarian situation on the modern battlefields" and that countries should "ensure that relevant weapon systems and their means of warfare comply with international humanitarian law and other applicable international law."[897]

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[893] Gregory C. Allen, *Understanding China's AI Strategy: Clues to Chinese Strategic Thinking on Artificial Intelligence and National Security* 4-9, Center for a New American Security (Feb. 6, 2019), https://www.cnas.org/publications/reports/understanding-chinas-ai-strategy

[894] Adrian Pecotic, *Whoever Predicts the Future Will Win the AI Arms Race*, Foreign Policy (Mar. 5, 2019), https://foreignpolicy.com/2019/03/05/whoever-predicts-the-future-correctly-will-win-the-ai-arms-race-russia-china-united-states-artificial-intelligence-defense/

[895] United Nations Office of Disarmament, *Convention on Certain Conventional Weapons – Group of Governmental Experts on Lethal Autonomous Weapons Systems* (2022), https://meetings.unoda.org/ccw/convention-certain-conventional-weapons-group-governmental-experts-2022

[896] China, *Working Paper of the People's Republic of China on Lethal Autonomous Weapons Systems* (July 1, 2022), https://documents.unoda.org/wp-content/uploads/2022/07/Working-Paper-of-the-Peoples-Republic-of-China-on-Lethal-Autonomous-Weapons-Systems%EF%BC%88English%EF%BC%89.pdf

[897] China, *Working Paper of the People's Republic of China on Lethal Autonomous Weapons Systems* (July 1, 2022), https://documents.unoda.org/wp-

China attended the first summit on Responsible AI in the Military Domain – REAIM 2023 hosted by the Netherlands. The summit provided a platform for all stakeholders (governments, industry, civil society, academia, and think tanks) to forge a common understanding of the opportunities, dilemmas, and vulnerabilities associated with military AI.[898] China is one of the 57 endorsing countries that underlined the need to put the responsible use of AI higher on the political agenda and to further promote initiatives that make a contribution to this respect.

Fundamental Rights

China has endorsed the Universal Declaration of Human Rights. As a party to the UDHR, China shall recognize "the inherent dignity" of all human beings and secure their fundamental rights to "privacy." Privacy rights are guaranteed to Chinese citizens under the Constitution. However, Article 40 of the Chinese constitution justifies the invasion of privacy "to meet the needs of State security." Furthermore, the provisions of the Constitution are not directly enforceable since there is neither a constitutional court nor any possibility to assert constitutional rights.[899] Relatedly, problematic exemptions for the collection and use of data, when it is related to security, health, or the flexibly interpretable "significant public interests" [900] contribute to weak data protection in China.

According to Freedom House, China is not a free country and obtains a total score of 9/100.[901] It even obtains a negative score of -2/40 regarding political rights. The 2022 Freedom House Report notes that "China's authoritarian regime has become increasingly repressive in recent years. The ruling Chinese Communist Party (CCP) continues to tighten control over all aspects of life and governance, including the state bureaucracy, the media, online speech, religious practice, universities, businesses, and civil society associations, and it has undermined an earlier series of modest rule-of-law reforms. The CCP leader and state president,

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content/uploads/2022/07/Working-Paper-of-the-Peoples-Republic-of-China-on-Lethal-Autonomous-Weapons-Systems%EF%BC%88English%EF%BC%89.pdf
[898] REAIM 2023 Endorsing Countries (Feb. 15-16, 2023),
https://www.government.nl/documents/publications/2023/02/16/reaim-2023-endorsing-countries
[899] Greenleaf, *Data Privacy*, p. 196; Wang, *Redefining Privacy*, p. 110;,
[900] Sacks, *New China Data Privacy Standard Looks More Far-Reaching than GDPR*, Center for Strategic and International Studies (2018), https://www.csis.org/analysis/new-china-data-privacystandard-looks-more-far-reaching-gdpr
[901] Freedom House, *Freedom in the World 2022*
https://freedomhouse.org/country/china/freedom-world/2022

Xi Jinping, has consolidated personal power to a degree not seen in China for decades."

OECD / G20 AI Principles

As a member of the G20, China has endorsed the G20 AI Principles.

UNESCO Recommendation on the Ethics of Artificial Intelligence

As Member of the UNESCO Ad Hoc Expert Group on AI Ethics, Zeng Yi, Director of the Sino-British Research Centre for AI Ethics and Governance, Institute of Automation, at the Chinese Academy of Sciences as well as Member of the National New Generation AI Governance Professional Committee, actively participated in the drafting and formulation of the UNESCO Recommendation on the Ethics of AI.[902] According to Zeng Yi, "the Recommendation is the most widely reached consensus worldwide at the governmental level, which will become a benchmark for reference to the development of AI ethics related international standards and international law."

The value of "harmonious coexistence", as Zhang Yi pointed out in the formulation of the Recommendation, contributes to the harmonious development of human society coexisting with AI technologies as well as the empowerment of human development, society, and ecology by AI.[903] It was however, partially accepted as "peaceful coexistence" to reflect diverse values and interests of different cultures, countries, and organizations.

The idea of "harmonious coexistence" is reflected in China's New Generation Artificial Intelligence Governance Principles[904] (Governance Principles) and New Generation Artificial Intelligence Code of Ethics[905] (Code of Ethics) formulated by the National New Generation AI Governance Professional Committee, which shows similar visions with the Recommendation. Another shared vision concerns sustainable

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[902] Chinese Academy of Science, *Artificial Intelligence Ethics is on a New Journey towards a Global Consensus*, Chinese Journal of Science and Technology (Dec. 2, 2021), https://www.cas.cn/cm/202112/t20211203_4817066.shtml

[903] Chinese Academy of Science, *the Institute of Automation contributed to UNESCO's Recommendation on the Ethics of Artificial Intelligence* (Nov. 30, 2021), https://ia.cas.cn/xwzx/kydt/202111/t20211130_6282785.html

[904] Ministry of Science and Technology of the People's Republic of China, *Developing Responsible AI: Next Generation AI Governance Principles Released* (June 17, 2019), Developing Responsible AI: Principles for the Governance of a New Generation of AI Released - Ministry of Science and Technology of the People's Republic of China (most.gov.cn)

[905] Ministry of Science and Technology of the People's Republic of China, *New Generation Artificial Intelligence Development Code of Ethics* (Sept. 26, 2021), https://www.safea.gov.cn/kjbgz/202109/t20210926_177063.html

development. Zhang Yi's proposal for the sustainable development of AI was accepted by the Recommendation in the policy section, which provided suggestions for achieving sustainability through deploying AI in the field of environment. At the national level, both the Governance Principles and the Code of Ethics issued by China consider sustainable development as the overall vision and objective for the New Generation Artificial Intelligence.[906]

Since the publication of the UNESCO Recommendation on AI Ethics, Chinese mainstream news media, think tanks, research institutions, and organizations actively interpreted, reposted, and communicated the Recommendation to the wider public in China.

Evaluation

China is one of the first AI superpowers implementing the ambitious plan of leading the world in AI by 2030. The country has also already endorsed principles on AI ethics and enforced a new law on data protection, provisions on algorithmic recommendation, as well as guidelines and regulations on AI ethics at both national and provincial levels. However, concerns exist that the main objective of China's legislative frenzy is not to protect human rights but to make sure that it controls and monitors the digital world as much as it does with the physical world. The validation of the use of facial recognition for public security purposes in the new data protection law, the various enforcement mechanisms and sanction regimes put in place to regulate AI are some cases in point. The use of AI technology against minorities and dissidents is also of concern. Nevertheless, China's participation in international efforts to create an ethical AI framework such as the UNESCO Recommendation on the Ethics of AI might show its willingness to establish some common understandings in foreign relations. It is as much a sign of its international status as an AI superpower.

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[906] Chinese Academy of Science, _Artificial Intelligence Ethics is on a New Journey towards a Global Consensus,_ Chinese Journal of Science and Technology (Dec. 2, 2021), https://www.cas.cn/cm/202112/t20211203_4817066.shtml

Colombia

National AI Strategy

   In March 2022, Colombia issued its Ethical Framework for AI,[907] which, according to the President Iván Duque, provides "tools that strengthen the principle of democracy, free competition and equity."[908] It is with these considerations along with ethics, social aspects, economic development and technological concepts that Colombia developed its AI policy.

   The National Planning Department of Colombia, through the National Development Plan for 2018-2022 was the first to encourage the inclusion of emerging technologies of the Fourth Industrial Revolution, such as AI, the Internet of Things (IoT) and robotics in the digital transformation of national entities and strategies across all sectors.[909]

   Following this, the National Planning Department, the Ministry of Information and Communications Technologies (MinTIC), and the Office of the President launched the country's National AI Strategy, titled the National Policy for Digital Transformation and AI.[910] The Strategy introduced social and economic conditions that facilitate the development of AI by creating a flexible framework of principles and guidelines rather than a rule-based structure. While the Strategy acknowledges its adoption of the OECD AI principles, it sets out 14 additional principles with a focus on four aspects namely inclusive growth, sustainable development, and well-being; building human capacity and preparing for labor market transition; fostering a digital ecosystem for AI; and providing an enabling policy environment for AI. The Strategy also endorses the adoption of an

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[907] Ministry of Technology of Information and Communications, *Colombia adopta de forma temprana recomendaciones de ética en Inteligencia Artificial de la Unesco para la region* (March 9, 2022), https://mintic.gov.co/portal/inicio/Sala-de-prensa/Noticias/208109:Colombia-adopta-de-forma-temprana-recomendaciones-de-etica-en-Inteligencia-Artificial-de-la-Unesco-para-la-region

[908] Office of the President of the Republic of Colombia, *With the Ethical Framework for Artificial Intelligence, Colombia is at the forefront in Latin America: Duque,* (Nov. 25, 2020), https://idm.presidencia.gov.co/prensa/con-el-marco-etico-de-inteligencia-artificial-colombia-se-pone-a-la-201125

[909] Congress of the Republic of Colombia, *National Development Plan 2018-2022 'Pact for Colombia, Pact for Equity'* (2019), https://www.dnp.gov.co/DNPN/Paginas/Plan-Nacional-de-Desarrollo.aspx

[910] Ministry of Information and Communications Technology (MinTIC), National Planning Department and the Office of the President, *National Policy for Digital Transformation and Artificial Intelligence (CONPES No. 3975)* (Nov. 8, 2019), https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/3975.pdf

ethical framework for the development of responsible and inclusive AI, utilization of data for the development of AI, and establishment of a market that uses AI productively and competitively.

To ensure the sustainable execution and continuity of AI public policy, various entities were created to coordinate the development and implementation of the National AI Strategy and other AI policies in the country. This includes the Presidential Advisory for Economic Affairs and Digital Transformation (DAPRE), the AI Expert Mission and the International Council for AI. DAPRE coordinates the work of government functionaries in implementing digital transformation through various systems including AI-based ones, while advising the government on the development of a digital ecosystem, along with the formulation and implementation of related policy.[911] The AI expert mission or task force serves as a bridge between regulators and experts. It includes experts from various professions who advise the government on policy formulation and assist them in developing a prospective roadmap for the implementation of AI policy, combining their technical and comprehensive vision.[912] The AI expert mission was launched with 10 experts. The International Council of AI was created to integrate international experts in the implementation and deployment of Colombia's national AI systems.[913] The Council consists of six government officials and nine international experts as permanent guests to collectively analyze and present policy proposals that will impact the development and deployment of AI. The Council will also review and guide the implementation of AI policy, while studying Colombia's position in international AI indices to determine points of improvement that can be integrated into a roadmap for the future of AI. "The Mission ended on July 19, 2022, leaving the country with 2 major projects implemented, the Policy Lab: AI Public Policy Lab: Future of Work and Gender and the

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[911] Office of the President of the Republic of Colombia, *Decree No. 1784 by which the structure of the Administrative Department of the Presidency of the Republic is modified* (Dec. 2019), https://bit.ly/3EWfUDk

[912] Office of the President of the Republic of Colombia and The Development Bank of Latin America (CAF), *Task force for the development and implementation of Artificial Intelligence in Colombia* (Nov. 2020), https://dapre.presidencia.gov.co/AtencionCiudadana/Documents/TASK-FORCE-para-desarrollo-implementacion-Colombia-propuesta-201120.pdf

[913] Office of the President of the Republic of Colombia and The Development Bank of Latin America (CAF), *International Council of Artificial Intelligence for Colombia* (March 2021), https://dapre.presidencia.gov.co/TD/INTERNATIONAL-COUNCIL-OF-ARTIFICIAL-INTELLIGENCE-FOR-COLOMBIA.pdf

Empowerment Platform: AprendeIA. In addition, a document on AI and Sustainability was developed."[914]

There are various policy intelligence tools in place to monitor the implementation of AI policy. For instance, SisCONPES monitors the implementation of each action line of the National AI Strategy, by reporting to implementing authorities on progress made and obstacles that arise.[915]

On February 2023, the Colombian Government presented the National Development Plan for 2022-2026, which included public policies related to digital transformation and democratization of ICT. However, it does not include direct references or developments on any national AI public policy.[916] The National Development Plan for 2022-2026 is expected to become law by the end of the first semester of 2023.

Ethical Framework for Artificial Intelligence

In Colombia, the aim of the Ethical Framework for AI is to address concerns arising from the implementation of emerging technologies such as AI.[917] The Ethical Framework for AI was developed around ethical principles that can serve as a criterion for evaluating the different uses and challenges that arise in this respect. The Ethical Framework for AI was developed as a tool that can be applied to different sectors taking into consideration the diversity of interests and opinions around the use of AI. The ten principles provided by the framework to guide the design, development, implementation and evaluation of AI systems include transparency, explainability, privacy, human oversight over AI decisions, security, responsibility, non-discrimination, inclusion, prevalence of the rights of children and adolescents, and social benefit.[918]

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[914] Government of Colombia*, AI Expert Mission,*
https://docs.google.com/document/d/1P0DMREFe1vGQ4wbK7UJzz-rgRsYw5lxR/edit#
[915] Office of the President of the Republic of Colombia, *Preparation and monitoring of CONPES documents*, https://bit.ly/3klbcqX
[916] Government of Colombia, Columbia, *Potencia Mundial de la Vida, Bases del Plan Nacional de Desarollo 2022-2026* (Feb. 2023),
https://colaboracion.dnp.gov.co/CDT/portalDNP/PND-2023/2023-03-17-bases-plan-nacional-desarrollo-web.pdf
[917] The Development Bank of Latin America (CAF), *Why has Colombia positioned itself as a regional leader on Artificial Intelligence* (Sept. 14, 2021),
https://www.caf.com/es/conocimiento/visiones/2021/09/por-que-colombia-se-ha-posicionado-como-lider-regional-en-inteligencia-artificial/
[918] Office of the President of the Republic of Colombia and The Development Bank of Latin America (CAF), *Ethical Framework for Artificial Intelligence in Colombia* (Aug. 2020), https://cyber.harvard.edu/sites/default/files/2020-12/Colombia_AI_Ethical_Framework.pdf

The framework also proposes an ethical algorithm register in which entities periodically report what their AI project is about, how they are implementing the AI ethics principles, and the ethical risks to the use of AI in their project. The register allows for the monitoring of progress in the implementation of AI principles and reinforces citizen participation by inviting their comments or questions on policies, good practices and projects related to AI.[919] The DAPRE and the Superintendency of Industry and Commerce (SIC) are responsible for monitoring AI projects. The DARPE developed a Dashboard for Monitoring the Ethical Framework for AI,[920] which is a publicly accessible tool allowing citizens to learn more about the use of AI systems. The Superintendence of Industry and Commerce monitors AI projects by carrying out the Data privacy regulatory Sandbox[921]. The ethical algorithm register of Colombia is based on the models of Amsterdam and Helsinki.[922]

Regulatory Sandboxes and Beaches

Colombia has adopted a smart regulation approach to AI through regulatory sandboxes and beaches.[923] This controlled environment was set up to experiment and test AI systems in the local context, to identify technical and governance flaws while promoting innovation.[924]

At first, a Draft Model Concept for the Design of Regulatory Sandboxes and Beaches in AI was published in August 2020 with public

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[919] Office of the President of the Republic of Colombia and The Development Bank of Latin America (CAF), *Ethical Framework for Artificial Intelligence in Colombia* (May, 2021), https://bit.ly/3bRiXAm

[920] DAPRE. Artificial Intelligence Dashboard. (Jan 20, 23), https://inteligenciaartificial.gov.co/en/dashboard-IA/

[921] Superintendency of Industry and Commerce, *Colombia*, https://www.sic.gov.co/sandbox-microsite

[922] Center for Technology and Society Studies (CETyS) of the University of San Andrés, *The Colombian Case: Adopting collaborative governance as a path for implementing ethical artificial intelligence* (2021), https://repositorio.udesa.edu.ar/jspui/bitstream/10908/18743/1/The%20Colombian%20case%20adopting%20collaborative%20governance%20as%20a%20path%20for%20implementing%20ethical%20artificial%20intelligence%20.pdf

[923] Regulatory sandboxes are a testbed for selected AI projects, where the regulatory framework is relaxed with some laws and regulations set aside while entities test their projects. Regulatory beaches are similar to regulatory sandboxes, but they are wider in scope. They allow a larger number of companies and sectors to participate in regulatory experimentation during extended amounts of time even longer than a year, with the goal of resolving industry problems.

[924] The Global Policy Journal, *The Colombia Case: A New Path for Developing Countries Addressing the Risks of Artificial Intelligence* (May, 2021), https://bit.ly/3jVF2Cm

comments received from various stakeholders.[925] The purpose of this policy was to understand technology before trying to regulate it, by balancing precaution with experimentation and learning. The document suggests a process of implementation that includes (1) defining a policy leadership to implement public policy; (2) defining emerging technologies and preliminary problems to be addressed; (3) completing a regulatory mapping of the impacted sector; (4) selecting a public entity to perform inspection and surveillance functions; (5) capacity building and training; (6) creating working groups; (7) designing a risk model and defining possible risks; (8) setting out a selection criteria for the risks; (9) designing the sandbox; (10) sharing the project for comment; (11) publishing and implementing; and (12) reporting on the findings and evidence.[926]

Later in 2020, a policy proposing a regulatory sandbox for Privacy and AI was open for public comments until November 30 by the DAPRE along with the Superintendence of Industry and Commerce. The regulatory sandbox here is meant to be preventive, so AI systems related to e-commerce, advertising and marketing protect personal data from the stage of design to execution, using tools like privacy impact assessments and privacy by design. It proposes (1) criteria to ensure compliance with regulation on data processing in AI; (2) proper processing of personal data in all stages of an AI project; (3) creation of AI products that respects individual rights to personal data; (4) advice to companies on the protection of personal data in AI systems; (5) adoption of a preventive approach to protect human rights in AI projects; (6) suggestion of amendments or modifications to Colombian regulations on technological advances.[927]

In April 2021, the Superintendence of Industry and Commerce released a final document governing privacy by design and by default in AI projects. In August 2021, the government approved the first proposals under

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[925] Presidential Advisory for Economic Affairs and Digital Transformation (DAPRE), *Draft Model Concept for the Design of Regulatory Sandboxes & Beaches in AI: Document for discussion,* https://bit.ly/3Gbd7XD

[926] Armando Guío Español, *Model Concept for the Design of Regulatory Sandboxes & Beaches in AI* (August 2020), https://dapre.presidencia.gov.co/AtencionCiudadana/DocumentosConsulta/consulta-200820-MODELO-CONCEPTUAL-DISENO-REGULATORY-SANDBOXES-BEACHES-IA.pdf

[927] Presidential Advisory for Economic Affairs and Digital Transformation (DAPRE), and the Superintendence of Industry and Commerce, *Sandbox on privacy by design and by default in Artificial Intelligence projects* (2020), https://www.sic.gov.co/sites/default/files/normatividad/112020/031120_Sandbox-sobre-privacidad-desde-el-diseno-y-por-defecto.pdf

the sandbox program.[928] The Superintendence of Industry and Commerce's sandbox for Privacy and AI started operating during 2021, and on January 2022, it selected a first project.[929]

Research & Development

On 26 July 2019, the MinTIC released an Information and Communication Technology (ICT) Plan for 2018-2022 titled "The Digital Future is for Everyone." Highlighting the need to develop human capital, the ICT Plan proposes an AI Center of Excellence & Appropriation to generate innovative proposals that benefit the national system and serve as references internationally.[930]

The ICT plan also emphasizes the importance of removing obstacles to the use of technology for digital businesses. In this respect, on 29 April 2019, the World Economic Centre for the Fourth Industrial Revolution was launched in Medellín, bringing together governments, the private sector, civil society organizations, academia, and tech experts from across the globe.[931] Together, these actors collaborate in designing, testing, and developing projects that prioritize policy and tech innovation on AI, the Internet of Things, blockchain, and robotics.[932]

To boost innovative AI research, Colombia launched a start-up incubator and accelerator, C-Emprende.[933] In addition to scaling enterprises and mobilizing resources, C-Emprende facilitates the exchange of knowledge between national and international academia, private sector actors, investors, and government representatives.

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[928] Superintendence of Industry and Commerce, *Sandbox on privacy by design and by default in Artificial Intelligence projects (*April, 2021), https://www.sic.gov.co/sites/default/files/files/2021/150421%20Sandbox%20on%20privacy%20by%20design%20and%20by%20default%20in%20AI%20projects.pdf and https://www.sic.gov.co/sites/default/files/files/2021/Proyectos%20seleccionados_%20Agosto%2017%20de%202021.pdf

[929] Superintendence of Industry and Commerce, *Sandbox sobre privacidad desde el diseno y por defecto en proyectos de inteligencia artificial* (Janv. 25, 2022), https://www.sic.gov.co/sites/default/files/files/2022/Seleccionados%20Segunda%20fase%20Sandbox.pdf

[930] Ministry of Information and Communications Technology (MinTIC), *ICT Plan 2018-2022 "The Digital Future is For Everyone"* (2019), https://micrositios.mintic.gov.co/plan_tic_2018_2022/pdf/plan_tic_2018_2022_20191121.pdf

[931] World Economic Forum, Centre for the Fourth Industrial Revolution, https://www.weforum.org/centre-for-the-fourth-industrial-revolution/affiliate-centres

[932] Centre for the Fourth Industrial Revolution Colombia, *Homepage*, https://c4ir.co

[933] C-Emprende, *Homepage*, https://innpulsacolombia.com/cemprende/quienes-somos

Public Participation

The Development Bank of Latin America (CAF) with the authorship of international expert, Armando Guío Español, has developed AI policy and implementation documents, including the ethical framework for AI, a model concept for the design of regulatory sandboxes and beaches in AI, a data governance model, a task force on the development and implementation of AI, and the outline of an international council for the implementation of AI policy.[934]

Draft AI policies and legislations of Colombia have been opened for public comment from academia, national, regional and international civil society actors, intergovernmental organizations and the private sector. These consultations have taken on various forms. For example, an Expert Roundtable on Colombia's Draft AI Ethical Framework was organized by the Berkman Klein Center for Internet and Society at Harvard University.[935]

Additionally, the Ethical Framework for AI and its ethical algorithm register promote public participation in the implementation of AI ethics principles, as the registry is publicly accessible and includes an interactive channel where citizens can ask questions or post comments on the ethical implementation of AI.[936] The presence of regulatory sandboxes and beaches also allows the participation of the private sector and academic institutions in the development of AI technology.

Data Protection

Data Protection in Colombia is governed by Article 15 of the Constitution.[937] Additionally, Colombia regulates financial credit, commercial and services information[938] and personal data processing and databases.[939]

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[934] Development Bank of Latin America, *Experience AI: Data and Artificial Intelligence in the Public Sector,* (2021), https://scioteca.caf.com/handle/123456789/1793
[935] Berkman Klein Center for Internet and Society at Harvard University, *Summary Report of Expert Roundtable on Colombia's Draft AI Ethical Framework* (Jan. 2021), https://cyber.harvard.edu/sites/default/files/2021-01/Colombia_Roundtable_Report.pdf
[936] Office of the President of the Republic of Colombia and The Development Bank of Latin America (CAF), *Ethical Framework for Artificial Intelligence in Colombia* (May 2021), https://bit.ly/3bRiXAm
[937] Congress of the Republic of Colombia, *Political Constitution of Colombia* (1991), https://www.constituteproject.org/constitution/Colombia_2015.pdf?lang=en
[938] Congress of the Republic of Colombia, *Law 1266 of 2008 on the processing of financial data, credit records, and commercial information collected in Colombia or abroad* (Dec. 31, 2008),
[939] Congress of the Republic of Colombia, *Law 1581 of 2012 on the protection of personal data* (Oct. 17, 2012),

For the implementation and monitoring of regulations regarding privacy, the Personal Data Authority (DPA) was established under the Division of Data Protection of the Superintendence of Industry and Commerce, according to Article 19 of Law 1581 of 2012. This authority functions as an oversight body, providing instructions and setting mandates, along with receiving complaints on the handling of data.

On automated decision-making, Law 1581 establishes that personal data processing must be for a legitimate purpose under the Constitution and other laws, it must be notified to the subject, and the purpose must be specific. As a result, if automated decision-making is the purpose of processing data, then it must be (1) legitimate as per the Constitution and other laws of Colombia, (2) specific in purpose, and (3) data subject should be informed of it.[940]

Secondary decrees, decisions and regulations provide a better understanding of data protection, particularly with regard to the application of automated mechanisms to databases. Databases have been defined under Article 3 of Law 1581 as an organized set of personal data which is treated in the same as personal data. Decree 886 that regulates Article 25 of Law 1581 explains this further by stating that, when automation is applied to databases containing personal data, it should be registered in the public directory of databases called the National Register of Databases.[941] Drawing from the necessity to register information from databases and the protection of the right to *habeas data*,[942] the Constitutional Court concluded that the administrator of a database has specific obligations regarding the quality of data being transmitted and allows data subjects to authorize how their information in an automated system is handled.[943] Additionally, Article 26 of Decree 1377 establishes the principle of proven liability, according to which those responsible for handling personal data have an obligation to

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https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=49981#:~:text=La%20presente%20ley%20tiene%20por,el%20art%C3%ADculo%2015%20de%20la

[940] Dejusticia, *Accountability of Google and other businesses in Colombia: Personal Data Protection in the Digital Age* (2019), https://www.dejusticia.org/wp-content/uploads/2019/01/Accountability-of-Google-and-other-Businesses-in-Colombia.pdf

[941] Office of the President of the Republic of Colombia, *Decree 886 of 2014* (2014), https://www.suin-juriscol.gov.co/viewDocument.asp?id=1184150

[942] *Habeas data* is a fundamental right and tool to provide legal protection to owners of personal data, particularly when faced with undue or illegal processing of their personal data by databases, or public or private registries.

[943] Constitutional Court of Colombia, *Sentence C-1011/08: Habeas Data in statutory law and the handling of information contained in personal databases* (2008), https://www.corteconstitucional.gov.co/relatoria/2008/C-1011-08.htm.

prove that they have taken sufficient and effective measures to abide by regulations, even when the data is processed by an automated method.[944]

In July 2020, through Resolution 38281, the Superintendence of Industry and Commerce concluded that Law 1581 is thematically and technologically neutral.[945] Thus, the provisions of Law 1581 apply to the processing of any data regardless of techniques or technologies used. The protection of personal data extends to all techniques and tools, including AI in its use for predictive dialing, robocalls and nuisance calls. Nelson Remolina, the Superintendent for the Protection of Personal Data, elaborated on this by stating that, while Colombian law allows for the creation, design, and use of technological innovations to process data, it must be done in a way that respects the legal system by complying with all the rules pertaining to the processing of personal data.[946]

Colombian data protection law differs in scope from the GDPR, since it only applies to data processing carried out by data processors and data controllers within the country or to those who have a legal obligation under international law and treaties. Unlike the GDPR, the Colombian privacy law does not set out conditions under which data profiling is allowed. However, Colombian privacy law protects individual privacy through habeas data rights, guaranteed by Article 15 of the Colombian Constitution. Article 15 is intended to protect an individual's right to know, update, and rectify information gathered about them in online files or databases. [947]

In January 2022, President Duque issued Decree 092, modifying the structure of the Superintendence of Industry and Commerce. The modifications include the creation of the Habeas Data Department, under the Deputy Superintendence for Personal Data Protection. The Decree tasks the Habeas Data Department with ensuring that all entities covered by the data protection regime comply with data protection law. The Habeas Data Department may also resolve any complaint or claim submitted by data

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[944] Office of the President of the Republic of Colombia, *Decree 1377 of 2013* (2013) http://www.suin-juriscol.gov.co/viewDocument.asp?ruta=Decretos/1276081

[945] Superintendence of Industry and Commerce, *Resolution 38281* (July 14, 2020), https://www.sic.gov.co/sites/default/files/files/Proteccion_Datos/Res%2038281%20del%2014VII2020%20Mervicol%20marcadores%20predictivos%20robocalls%20IA.pdf

[946] Ibero-American Data Protection Network (RIPD), *Colombian data protection authority concluded that predictive dialing, robocalls and artificial intelligence must comply with regulation regarding the processing of personal data* (July 20, 2020), https://www.redipd.org/en/news/colombian-data-protection-authority-concluded-predictive-dialing-robocalls-and-artificial

[947] Privacy International, *State of Privacy Colombia* (Jan. 2019), https://privacyinternational.org/state-privacy/58/state-privacy-colombia

subjects seeking to enforce their data rights. The Department may issue orders to enforce its statutory mandates.[948]

The Superintendence of Industry and Commerce sponsored the 2020 GPA Resolution on Accountability in the Development and Use of Artificial Intelligence.[949] The Superintendence also co-sponsored the 2022 GPA Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology.[950]

Algorithmic Transparency

Colombian data protection law does not provide for algorithmic transparency. However, the 2022 Ethical Framework for AI[951] does provide for both transparency and explainability.

On November 2022, a group of Colombian Senators introduced a Draft Bill 253 of 2022 to establish the guidelines for an AI policy. If this piece of legislation were to pass, it would be the first one regarding this topic in Colombia and would enshrine algorithmic transparency in law.[952]

Data Infrastructure

Colombia facilitates data access for those designing and developing AI systems, achieved by removing unnecessary and unjustified barriers to access information. To facilitate such data access and to generate social and economic well-being, the Colombian government has developed data infrastructure policies with a shared dynamic and standardized resources across different actors. Thus, data infrastructure is used to strengthen

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[948] Government of Colombia, *Decreto 092 de 2022*, https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=176826

[949] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[950] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[951] Ministry of Technology of Information and Communications, *Colombia adopta de forma temprana recomendaciones de ética en Inteligencia Artificial de la Unesco para la region* (March 9, 2022), https://mintic.gov.co/portal/inicio/Sala-de-prensa/Noticias/208109:Colombia-adopta-de-forma-temprana-recomendaciones-de-etica-en-Inteligencia-Artificial-de-la-Unesco-para-la-region

[952] Draft Bill 253 of 2022, http://leyes.senado.gov.co/proyectos/index.php/proyectos-ley/cuatrenio-2022-2026/2022-2023/article/268-por-medio-de-la-cual-se-establecen-los-lineamientos-de-politica-publica-para-el-desarrollo-uso-e-implementacion-de-inteligencia-artificial-y-se-dictan-otras-disposiciones

institutional capacity to provide better quality services to citizens, to include citizens and the private sector in data governance, to drive innovation in governance, and to guide decision-making.

The first policy document on data infrastructure is the National Policy on Data Exploitation or CONPES No. 3920 of 2018, developed by the National Council on Economic and Social Policy, the National Planning Department, and the Office of the President.[953] This policy uses data within a legal, ethical, and institutional framework to generate social and economic value; to increase the availability and interoperability of government data; to promote data culture in public entities, academia and the private sector; to promote data ethics and AI; and to provide test environments through data sandboxes, sandboxes on privacy and AI, and conceptual models for regulatory sandboxes and beaches in AI. To achieve this target, CONPES 3920 sets out 45 action steps with indicators, responsible parties, budgets and a timeline.

The second policy document is the National Data Infrastructure Plan (PNID) developed by MinTIC, the National Planning Department, and the Office of the President, with the support of the World Economic Centre for the Fourth Industrial Revolution.[954] The draft of the PNID was shared for public comment until 17 September 2021. The PNID presents an approach to data as infrastructure, defines the components of data infrastructure, and provides a roadmap with concrete actions to implement data infrastructure in the country. This roadmap identifies 6 elements including governance, data, data leveraging, infrastructure interoperability, data security and privacy, as well as technical and technological input for data management.

For the successful integration of the PNID into the data regulation ecosystem, the government intends to create between 2022 and 2025 PNID guidelines. The aim is to identify priority data and create guidelines to ensure data quality; to develop a data infrastructure governance model; to identify indicators for monitoring; and to draw up a collaborative participation strategy for different actors in the data ecosystem.

The third policy document is the Data Infrastructure Governance Model for the Development of Emerging Technologies that was created by

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[953] National Council on Economic and Social Policy, the National Planning Department, and the Office of the President, *National Policy on Data Exploitation (Big Data)* (Apr. 17, 2018), https://www.mindeporte.gov.co/recursos_user/2020/Jur%C3%ADdica/Julio/Conpes_3920.pdf

[954] Ministry of Information and Communications Technology (MinTIC), National Planning Department and the Office of the President, *National Data Infrastructure Plan (PNID)* (Sept. 2021), https://mintic.gov.co/portal/715/articles-179710_recurso_2.pdf

the DAPRE, the National Planning Department, and the CAF.[955] CONPES 3920 and the PNID both emphasized the need to develop an institutional framework to accompany the development of data infrastructure. The governance model responds to this need. The governance model outlines five objectives to guide its design, including institutional coordination, private sector participation, confidence building, technical modelling, and international impact. Under each of these objectives, responsible parties or entities and specific tasks have been provided.

AI and the Judiciary

From 1996, the Colombian government introduced the use of technology in the administration of justice through Article 95 of Law 270, while mandating protection of confidentiality, privacy, and security of personal data.[956] As a result, several government entities use AI in judicial aspects of their work. This includes the Constitutional Court, the Office of the Attorney General, and the Superintendence of Companies.

Concerning the Constitutional Court of Colombia, where thousands of case documents are received daily, their processing has been expedited using an AI system called Prometea. Applying machine learning abilities, this system investigates, analyses, identifies and suggests priority cases on health-related aspects within a few minutes.[957] Additionally, it produces statistical reports, automates documentation, systematizes and synthesizes case law across the country, and improves security by integrating blockchain technology. This system that includes human oversight, improved the efficiency of case processing by 937%.[958]

The Office of the Attorney General makes use of an AI system called Fiscal Watson, which consolidates criminal cases across different databases and regional offices to analyze similar evidentiary elements such

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[955] Presidential Advisory for Economic Affairs and Digital Transformation (DAPRE), the National Planning Department and the Development Bank of Latin America (CAF), *Data Infrastructure Governance Model for the Development of Emerging Technologies* (August, 2020), https://bit.ly/306wVvn

[956] Congress of Colombia, *Law 270 of 1996* (Mar. 7, 1996), https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=6548#:~:text=Exp ide%20la%20Ley%20Estatutaria%20de,las%20jurisdicciones%20y%20altas%20Cortes

[957] Juan Camilo Rivandeniera, *Prometea, artificial intelligence for the revision of guardianships in the Constitutional Court* (March 22, 2019), https://www.ambitojuridico.com/noticias/informe/constitucional-y-derechos-humanos/prometea-inteligencia-artificial-para-la

[958] Laboratory of Innovation and Artificial Intelligence Buenos Aires (IA Lab), *Analyse 2016 sentences in 2 minutes? Prometea in the Constitutional Court of Colombia* (Aug. 6, 2019), https://ialab.com.ar/prometeacolombia/

as modus operandi, physical attributes, types of weapon and other aspects.[959] By accelerating the processing of case information, Fiscal Watson has helped connect and solve similar cases across the country. The Attorney General has also suggested that Fiscal Watson can be used to identify irregularities in government contracts made during the COVID-19 pandemic, since all data and documentation is available online.[960]

The Superintendence of Companies, an administrative body, employs a robot assistant called Siarelis (System based on AI for the Resolution of Company Litigation) to exercise its discretionary judicial powers in corporate cases related for example to the piercing of the corporate veil or insolvency.[961] Using Case Based Reasoning (CBR), Siarelis helps officials identify relevant case law for a specific case and also provides users with possible decisions that could be reached in their case.[962] The outcome reached by the system is decided based on the judicial history and precedent relevant to a specific case.

To recognize that all agents of the Judiciary might use ICT in judicial processes (including IA), the Congress issued Law 2213 of 2022.[963] This Law allows the use of different technologies in the different stages of Civil, Labor, Family, Administrative, Constitutional, Disciplinary and Criminal procedures in Colombia.

Facial Recognition

In Colombia, facial recognition technology is used extensively by the State. The Ministry of Transport is integrating a network of cameras with facial recognition technology throughout Bogota. The system, which is meant to prevent and reduce road accidents, has become operational in

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[959] Pablo Medina Uribe and Luisa Fernanda Gomez, *Watson, the intelligent investigator with which the Prosecutor's Office seeks to block crime* (July. 25, 2020), https://www.elpais.com.co/judicial/watson-el-investigador-inteligente-con-el-que-la-fiscalia-busca-cerrarle-el-paso-al-crimen.html

[960] Vanguardia, *Fight against corruption in Santander will be done with Artificial Intelligence* (June 24, 2020), https://www.vanguardia.com/politica/lucha-contra-la-corrupcion-en-santander-se-hara-con-inteligencia-artificial-XC2532257

[961] Center for Technology and Society Studies (CETyS) of the University of San Andrés, *Readiness of the judicial sector for Artificial Intelligence in Latin America – Analytical and Exploratory Framework, Republic of Colombia* (2021), https://cetys.lat/wp-content/uploads/2021/09/colombia-ENG.pdf.

[962] Superintendence of Companies, *Siarelis,* https://www.supersociedades.gov.co/delegatura_mercantiles/Paginas/siarelis.aspx.

[963] *Law 2213 of 2022*, https://www.ramajudicial.gov.co/documents/10635/96912775/69_Ley+2213+13+junio+2022.pdf/0f2f8c7b-daeb-47b9-994b-9b2d382c64c6

December 2021 and provides the location of cameras out of transparency.[964] A facial recognition system to improve surveillance was also introduced by local authorities in September 2021 at a stadium in Barranquilla. This system combines cameras with access to unlimited databases to record and track individuals.[965] The system will be used to identify and detain anyone with cases pending before the judicial system or any other relevant authority. The Atanasio Girardot stadium in Medellín also has 170 smart cameras installed for surveillance, since 2016.[966] Expanding the reach of surveillance in the city, Medellín introduced 40 security robots with facial recognition capability and an integrated AI security system to patrol the city.[967] The Border Control Agency located at El Dorado International Airport in Bogota uses the Iris recognition system, with the system expected to reach other airports in the country within the next few years.

Fundación Karisma, a civil society organization dedicated to supporting the responsible use of tech, highlights the pitfalls of these systems. In a report titled "Discreet Cameras," Fundacion Karisma points out that surveillance technology and biometric identification systems in Colombia only take into consideration technical and impact considerations while assessing systems. There is no analysis using necessity, proportionality or the possible effect of the technology on human rights.[968] However, Colombia's co-sponsorship of the 2022 GPA Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology indicates a move towards official recognition of the importance of parameters such as reasonableness, necessity, proportionality, and the effect of the technology on human rights.[969] Although the government tries to ensure transparency by sharing

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[964] El Tiempo, *Do you agree with life-saving cameras recognizing your face?* (Aug. 2, 2021), https://www.eltiempo.com/bogota/camaras-salvavidas-tendrian-reconocimiento-facial-en-bogota-movilidad-607508

[965] El Tiempo, *Colombia vs Chile match will have facial recognition system* (Sept. 9, 2021), https://www.eltiempo.com/colombia/barranquilla/el-metropolitano-cuenta-con-sistema-de-reconocimiento-facial-616845

[966] NEC Corporation, *Integrated Surveillance and Security System for Atanasio Girardot Stadium - Medellín*, (2017), https://www.nec.com/en/case/medellin/es/pdf/brochure.pdf

[967] El Tiempo, *Mayor Daniel Quintero revealed robots to track crime in Medellín* (Aug. 11, 2021), https://www.eltiempo.com/colombia/medellin/daniel-quintero-presento-robot-para-predecir-delitos-en-medellin-609912; El Tiempo, *How is facial recognition done in Colombia?* (May 17, 2019), https://www.eltiempo.com/tecnosfera/dispositivos/colombia-que-usos-de-reconocimiento-facial-hay-en-el-pais-362220

[968] Fundación Karisma, *Discreet Cameras*, (Feb. 2, 2018), https://web.karisma.org.co/camaras-indiscretas/

[969] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2022), https://globalprivacyassembly.org/wp-

the location of video surveillance systems that use facial recognition technology, the right to privacy and other fundamental rights of individuals are still ignored.[970]

Use of AI during COVID-19 Pandemic

Despite this situation during the emergency of the COVID-19 the government released a mobile app named CoronApp.[971] At first, CoronApp's main objective was to allow people to stay updated on the progression of the pandemic in Colombia. In the days that followed, however, the narrative around the app changed. Its purpose became more ambitious. It soon became a digital tool to keep the population informed and "save as many lives as possible".[972]

Concerns were raised about the app's data privacy implications, as it collected personal information such as location data and potentially exposes users to security risks. The Colombian government stated that the app is voluntary and that users' data will be kept confidential, but it is important for individuals to carefully review the app's privacy policy and consider the potential risks before downloading and using it.

In response to these concerns, the Colombian human rights organization Dejusticia has called for greater transparency and accountability in the use of personal data collected through this app and another implemented in the future.[973] Dejusticia had also called for the government to implement strict measures to protect the privacy of individuals and ensure that their data is only used for the purposes that the app was created.

Dejusticia has also urged the government to establish clear guidelines for the collection, use, and storage of personal data, and to provide users with the ability to opt out of the app(s) at any time. Additionally, they have called for the government to establish a system of

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content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf
[970] Fundación Karisma, *Discreet Cameras*, (Feb. 2, 2018), https://web.karisma.org.co/camaras-indiscretas/
[971] Government of Colombia, *Press Release No. 051, 2020*, https://www.minsalud.gov.co/English/paginas/coronapp---colombia,-the-application-to-follow-the-evolution-of-the-coronavirus-in-the-country.aspx
[972] *Under Surveillance: (Mis)use of Technologies in Emergency Responses. Global lessons from the Covid-19 pandemic* (Jan. 25, 2023. https://privacyinternational.org/report/5003/under-surveillance-misuse-technologies-emergency-responses-global-lessons-covid-19
[973] Dejustica, *New Report: Misuse of Technologies in Emergency Responses* (Feb., 2023), https://www.dejusticia.org/en/new-report-misuse-of-technologies-in-emergency-responses/

oversight and accountability to ensure that data collected through the app(s) is not misused or mishandled.

CoronApp had the potential to be a useful tool in guaranteeing the health of the population, but it is important that the government takes steps to ensure that the personal data of users is protected and used responsibly. In April 2022, the Constitutional Court reviewed and determined that the plaintiffs' rights to privacy should be respected, even during a national state of emergency. Furthermore, the Court declared that authorities had a duty to "avoid the abusive and arbitrary use of personal data'' and the National Data Authority was ordered to erase the plaintiffs' data.[974]

Lethal Autonomous Weapons

During the 2015 meeting of the Group of Governmental Experts (GGE) on lethal autonomous weapons (LAWS), Colombia issued a statement calling for multilateral regulation to ensure human control over autonomous weapons at all times, so that no machine makes an autonomous decision.[975] Colombia has called for a pre-emptive ban on all LAWS[976] and for an international treaty that will ensure meaningful human control over any use of force.[977]

Colombia was among the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 UN General Assembly meeting. In this joint statement, States urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular

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[974] *Under Surveillance: (Mis)use of Technologies in Emergency Responses*, p. 35, https://files.inclo.net/content/pdf/79/INCLO-Under%20Surveillance-Report.pdf

[975] Government of Colombia, *Statement at the Convention on Certain Convention Weapons – Informal meeting of experts on Lethal Autonomous Weapons Systems* (Apr.2015), https://www.reachingcriticalwill.org/images/documents/Disarmament-fora/ccw/2015/meeting-experts-laws/statements/17April_Colombia.pdf

[976] World Summit of Nobel Peace Laureates, *Final Declaration of the 16th World Summit of Nobel Peace Laureates* (Feb. 4, 2017), http://www.nobelpeacesummit.com/final-declaration-of-the-16th-world-summit-of-nobel-peace-laureates/

[977] Government of Colombia, *Statement at the Convention on Certain Conventional Weapons – Group of Government al Experts on Lethal Autonomous Weapons Systems* (Apr. 13, 2018), https://reachingcriticalwill.org/images/documents/Disarmamentfora/ccw/2018/gge/statements/13April_Colombia.pdf

International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[978]

In February 2023, Colombia endorsed, along with more than 30 other Latin American and Caribbean states, the Belén Communiqué,[979] which calls for "urgent negotiation" of a binding international treaty to regulate and prohibit the use of autonomous weapons to address the grave concerns raised by removing human control from the use of force.

Human Rights

Colombia is a signatory to many international human rights treaties and conventions. If in 2022 Freedom House considered the country as partly free[980] due to among others illegal surveillance operations by the state security forces,[981] in 2023 the country is now considered as free.

According to Article 93 of Colombia's Constitution, rights and duties in the national system are interpreted according to international treaties and conventions that have been ratified by its Congress.[982] Thus, Colombia has made powerful commitments backed by strong action that encourages legal certainty, with an entire implementation, regulatory and monitoring ecosystem for AI. This is strengthened by expert contributions and public participation at the national, regional and international level.

OECD / G20 AI Principles

Colombia has endorsed the OECD AI Principles. Colombia's Ethical Framework for AI introduced as a guideline for trustworthy AI, provides standards for the ethical use and governance of AI and is aligned

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[978] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw 9WYcSnnAm_en.pdf

[979] *Communiqué of the Latin American and the Caribbean Conference of Social and Humanitarian Impact of Autonomous Weapons* (Feb. 24, 2023), https://www.rree.go.cr/files/includes/files.php?id=2261&tipo=documentos

[980] Freedom House, *Freedom in the World 2023 – Colombia*, https://freedomhouse.org/country/colombia/freedom-world/2023

[981] Human Rights Watch, *World Report 2021: Colombia,* (2021), https://www.hrw.org/world-report/2021/country-chapters/colombia, Semana, *Strikes without quarter: The Persecution of Semana*, (Jan. 12, 2020), https://www.semana.com/nacion/articulo/persecucion-espionaje-y-amenazas-a-periodistas-de-la-revista-semana/647890/

[982] Congress of the Republic of Colombia, *Political Constitution of Colombia* (1991), https://www.constituteproject.org/constitution/Colombia_2015.pdf?lang=en

with the OECD AI principles.[983] Additionally, Colombia has developed policy intelligence tools and a follow up plan to monitor the implementation of the OECD AI Principles, while identifying good practices to determine if OECD's recommendations to Colombia have been implemented. However, Colombia has not joined the Global Partnership on AI (GPAI).[984]

UNESCO Recommendations on the Ethics of Artificial Intelligence

Colombia endorsed the UNESCO Recommendation on the Ethics of AI in November 2021. Based on the principles of OECD and UNESCO "the Presidency of the Republic has identified the importance of ethical considerations for the design, development, and implementation of artificial intelligence in Colombia and more precisely the need to adopt an Ethical Framework as a non-binding guide for the implementation of artificial intelligence in the country."[985]

The CAF, the development bank of Latin America, and UNESCO signed a letter of intent to collaborate on the implementation of the UNESCO Recommendation in Latin America and the Caribbean. They pledged to create a Regional Council composed of national and local governments in the region which will support their implementation efforts. According to Gabriela Ramos, UNESCO Assistant Director-General for Social and Human Sciences, Colombia will be a member of the Regional Council.[986]

Evaluation

Colombia has anchored its AI policy in the Ethical Framework for Artificial Intelligence, which has influenced AI policies across Latin America. Colombia has also endorsed the OECD AI Principles, UNESCO recommendation on the Ethics of AI and included them as part of its own ethical framework. The Constitution of Colombia established a right to data protection, and the country has a comprehensive data protection law and a data protection agency. However, Colombia's laws do not include the

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[983] Presidential Advisory for Economic Affairs and Digital Transformation (DAPRE), Ethical Framework for Artificial Intelligence, (Aug. 2020), https://bit.ly/3jTbLIa

[984] The Global Partnership on Artificial Intelligence (GPAI), Members, https://www.gpai.ai/community/

[985] Government of Colombia, Ethical Framework for Artificial Intelligence in Colombia, (October, 2021), P.10, https://inteligenciaartificial.gov.co/static/img/ETHICAL_FRAMEWORK_FOR_ARTIFICIAL_INTELLIGENCE.pdf

[986] G. Ramos, _Inteligência Artificial ética e responsável: das palavras aos fatos e direitos_, Somos Ibero-America (Feb. 1, 2023), https://www.somosiberoamerica.org/pt-br/tribunas/inteligencia-artificial-etica-e-responsavel-das-palavras-aos-fatos-e-direitos/

algorithmic transparency provisions of the GDPR. There also growing concerns about the use of AI-enabled facial surveillance systems, even with the co-sponsorship of the last GPA Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology. The country needs to set a regulatory framework that actually integrate these principles and expectations.

Costa Rica

National AI Strategy

Costa Rica does not have yet a dedicated national AI strategy. However, the Ministry of Science, Technology and Telecommunications (MICITT) in Costa Rica has signed a declaration of intent with UNESCO to develop an AI strategy for the country. The National Strategy is due to be presented in August 2023.[987] In the meantime, the country has developed a general human-centered science, technology and innovation plan and a specific digital strategy that addresses issues related to AI technology.

Already in its second version, the National Plan on Science, Technology and Innovation 2022-2027 (*Plan Nacional de Ciencia, Tecnología e Innovación 2022-2027* (PNCTI)) provides a general overview of the country's goals regarding the use of information and communication technologies for a sustainable, equitable and creative future. In this Plan, AI is one of several thematic areas. Regarding AI, the focus is placed on pursuing the following actions: i) the development of technical capabilities and competencies across STEM/STEAM curricula in schools and technical colleges, ii) the development of a program of study for technical certification in AI as offered by a collaboration between the Ministry of Public Education and technical colleges, iii) the development of understandable and accessible AI systems for all, and iv) the further support of the fAIr Latin America and Caribbean (LAC) initiative designed by the Inter-American Development Bank (IDB) to ensure the ethical and responsible adoption of AI.[988]

Pursuant to the first version of the National Plan on Science, Technology and Innovation 2015-2021, the Ministry of Science, Technology and Telecommunications (MICITT) presented the Digital Transformation Strategy: The Bicentennial of Costa Rica 4.0 (*Estrategia de Transformación Digital hacia la Costa Rica del Bicentenario 4.0 2018-2022*).[989] In terms of governance, the High Level Commission of the Digital

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[987] Mariana Alvarez, *Costa Rica will be the first country in Central America to have an Artificial Intelligence strategy* (March 1, 2023), https://www.unesco.org/en/articles/costa-rica-will-be-first-country-central-america-have-artificial-intelligence-strategy

[988] Ministry of Science, Technology and Telecommunications, *Plan Nacional de Ciencia, Tecnología e Innovación 2022-2027 (Consulta Pública)* (2021), https://www.micitt.go.cr/consulta-publica-no-vinculante-plan-nacional-ciencia-tecnologia-e-innovacion-2022-2027

[989] Ministry of Science, Technology and Telecommunications, *Estrategia de Transformación Digital hacia la Costa Rica del Bicentenario 4.0 2018-2022*,

Government (*Comisión de Alto Nivel de Gobierno Digital del Bicentenario*) serves as an advisory agency to the MICITT. The Commission's function is to identify, propose, and validate national projects. Of particular relevance with regard to AI, the Digital Transformation Strategy mentions the country's goal "to transform public institutions with efficient and collaborative work, applying new technologies for intelligent decision-making."[990] Four areas of action have been identified: i) the development of national public policies for the acquisition, development and management of digital technologies, for which a third version was released January 28, 2022[991], ii) the establishment of a digital ecosystem for citizen identification using biometric information like digital fingerprinting and portraiture,[992] iii) the development of a connected digital platform for public services, and iv) the development of a pathway towards a National Cybersecurity Strategy currently in draft form.[993]

Another initiative specific to AI is Costa Rica's declared intention to build a National Laboratory for AI (*Laboratorio Nacional de Inteligencia Artificial* (LaNIA)).[994] A letter was signed by MICITT, the National Center of High Technology (*Centro Nacional de Alta Tecnología* (CENAT)) and the National Program (*Programa del Estado de la Nación* (PEN)) for the cooperation in AI, science and technology. The laboratory intends to search for cross-sector solutions to national problems with the support of AI through international cooperation and interaction between the public and private sectors with the goal to create an ecosystem, strengthen trust, and promote research and education in AI.

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https://www.micitt.go.cr/wp-content/uploads/2022/05/Estrategia-de-Transformacion-Digital.pdf

[990] Ibid.

[991] Ministry of Science, Technology and Telecommunications, *Código Nacional de Tecnologías Digitales v 3.0* (2022),
https://www.micitt.go.cr/wp-content/uploads/2022/05/Estrategia-Nacional-de-Ciberseguridad-Costa-Rica-Oficial.pdf

[992] *Por Usted, por Costa Rica: Firma Digital*, https://www.mifirmadigital.go.cr/

[993] Ministry of Science, Technology and Telecommunications, *Costa Rica Estrategia Nacional de Ciberseguri*dad, https://www.micitt.go.cr/wp-content/uploads/2022/05/Estrategia-Nacional-de-Ciberseguridad-Costa-Rica-Oficial.pdf

[994] Ministry of Science, Technology and Telecommunications, *Transformación Digital: potenciando las sinergías en campos como la Inteligencia Artificial dentro del Sistema Nacional de Ciencia y Tecno*logía (Jan. 27, 2020),
https://www.elindependiente.co.cr/2020/01/transformacion-digital-potenciando-las-sinergias-en-campos-como-la-inteligencia-artificial-dentro-del-sistema-nacional-de-ciencia-y-tecnologia/.

Public Participation

Citizen participation in Costa Rica has a vast and rich history that has given rise to a significant number of democratic innovations. The Constituent Assembly of 1949 was reintroduced into the constitutional text with instruments for citizen participation. With later reforms to the Constitution in 2002 and 2003, public participation was enhanced through the inclusion of the Referendum and the Popular Initiative. In 2003, Article 9 of the Constitution of Costa Rica was further amended, supplementing the various instruments of citizen participation that had already been incorporated into the Constitution. Costa Rica's democratic institutions provide a robust legal framework to support public participation.

The National Commission for Open Government is using its online platform to enable public consultations on relevant national policies. The MICITT publishes all its public consultation opportunities on its website[995] as well as on social media through its Facebook page.[996]

Costa Rica has made important progress in aligning its regulations and practices regarding public participation with OECD standards.[997] Costa Rica also takes part in the CoST initiative to implement the Infrastructure Transparency Index (ITI) for improving transparency and accountability across public infrastructures. These commitments consolidate the transformation of Costa Rica towards an open government.[998]

Public participation opportunities were offered with regard to the National Plan on Science, Technology and Innovation 2022-27,[999] fthe creation of the High Level Commission of the Digital Government,[1000] and

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[995] Ministry of Science, Technology and Telecommunications, *Consultas Públicas*, https://www.micitt.go.cr/transparencia/consultas-publicas.

[996] Ministerio de Ciencia, Tecnología y Telecomunicaciones de Costa Rica, https://www.facebook.com/micitcr.

[997] OECD*, Public Governance in Costa Rica* (2021), https://www.oecd.org/costarica/costa-rica-public-governance-evaluation-accession-review.pdf; *Costa Rica busca fortalecer la participación ciudadana con políticas de impacto regulatorio* (Dec.8, 2017) *Comunicados Desarrollo Social Econo*mía, https://www.presidencia.go.cr/comunicados/2017/12/costa-rica-busca-fortalecer-la-participacion-ciudadana-con-politicas-de-impacto-regulatorio/

[998] CoST Costa Rica, *CoST Infrastructure Transparency Initiative*, https://infrastructuretransparency.org/where/cost-costa-rica/

[999] Ministry of Science, Technology and Telecommunications, *Consulta Pública No Vinculante Plan Nacional de Ciencia, Tecnología e Innovación 2022-2027* (2021), https://www.micitt.go.cr/consulta-publica-no-vinculante-plan-nacional-ciencia-tecnologia-e-innovacion-2022-2027

[1000] Ministry of Science, Technology and Telecommunications, *Consulta Pública Propuesta Creación de la Comisión de Alto Nivel de Gobierno Digital* (2022), https://www.micitt.go.cr/decreto-comision-alto-nivel-gobierno-digital

more recently the National Strategy for Cybersecurity,[1001] among other digital initiatives. However, being that there is no specific national AI strategy, there is no public participation solely on AI initiatives and policies.

Data Protection

  Costa Rica has two comprehensive laws that protect personal data. While under the Ministry of Justice and Peace (Ministerio de Justicia y Paz), the entity in charge of compliance with data protection law, the Agency for the Protection of Citizen's Data (Agencia de Protección de Datos de los Habitantes (Prodhab) is fully independent.[1002]

  Law No. 8968 protects the personal data handling of individuals. Law No. 7975, the Undisclosed Information Law, specifies that the unauthorized disclosure of confidential and/or personal information is a crime.[1003] These laws, together with their by-laws, were enacted to regulate activities of companies that administer databases containing personal information.[1004] The laws require data subjects' consent before the processing or use of their data. Consent must cover in particular the purpose for data collection and how the data will be processed. The identity of all recipients and parties with access to personal data must be disclosed. Transfer of personal data to third countries is also conditional upon data subjects' consent.

  Additional laws include Costa Rica's Executive Decree No. 37554-JP for data breach and the General Telecommunications Law No. 8642 (Article 42) that protects the privacy of communications and personal information. The General Telecommunications Law is supplemented by administrative regulation Nº 35205-MINAET that guarantees the secrecy of communications, the right to privacy, and the protection of personal data of subscribers and users.[1005]

  In January 2021, based on the European Union's General Data Protection Regulation (GDPR) model, Costa Rica a) reformed its data

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[1001] Ministry of Science, Technology and Telecommunications, *Consulta Pública No Vinculante Estrategia Nacional de Ciberseguridad*, https://www.micitt.go.cr/consulta-publica-no-vinculante-estrategia-nacional-ciberseguridad-costa-rica

[1002] Agencia de Protección de Datos de los Habitantes Prodhab, *Quiénes somos?*, http://prodhab.go.cr/quienesomos/.

[1003] *Legislación Nacional-Costa Rica-Ley de Información No Divulgada 7975*, http://www.sice.oas.org/int_prop/nat_leg/Costa/lind7975.asp

[1004] *Protección de la Persona frente al tratamiento de sus datos personales No. 8968*, http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=70975&nValor3=85989&strTipM=TC

[1005] Sistema Costarricense de Información Jurídica, *Ley General de Telecomunicaciones*, https://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=NRTC&nValor1=1&nValor2=63431&nValor3=91176&strTipM=TC

protection Law No. 8968,[1006] b) restructured Prodhab, and c) adopted Convention 108 of the European Union on the Protection of Personal Data.[1007] Organizations which manage databases containing personal information and which distribute and commercialize such personal information in any manner will have to comply with the new reformed Law No. 8968. Particularly, they must comply with the following: a) report and register the company and the databases with Prodhab, b) report technical measures to secure the databases, c) protect and respect confidentiality of personal information, d) secure information contained in the databases, and e) establish a mechanism to review requests filed by data subjects for the correction of any errors or mistakes in the databases.[1008]

Despite being an accredited member of the Global Privacy Assembly (GPA) since 2012,[1009] the Prodhab has not endorsed the 2018 GPA Resolution on AI and Ethics,[1010] the 2020 GPA Resolution on AI and Accountability[1011] or the 2022 GPA Resolution on AI and Accountability.[1012]

Algorithmic Transparency

The current data protection laws of Costa Rica are silent with regard to algorithmic transparency.

[1006] Giró and Martínez, *Costa Rica: Towards a comprehensive reform on Data Privacy* (Feb. 2021), https://www.giromartinez.com/news/costa-rica-comprehensive-reform-on-data-privacy/

[1007] Camarillo, *Iniciativa busca incluir la protección de datos como un derecho autónomo en la Constitución* (Jan. 25, 2021) LaRepublica, https://www.larepublica.net/noticia/iniciativa-busca-incluir-la-proteccion-de-datos-como-un-derecho-autonomo-en-la-constitucion

[1008] DLA PIPER Law Firm, *Data Protection Laws of the World-Costa Rica* (Jan. 24, 2022), https://www.dlapiperdataprotection.com/index.html?t=law&c=CR

[1009] Global Privacy Assembly, *Resolution on Accreditation*, https://globalprivacyassembly.org/wp-content/uploads/2015/02/2-Accreditation-Resolution-Uruguay.pdf

[1010] International Conference on Data, Declaration on Ethics and Data Protection in Artificial Intelligence, (Oct. 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1011] Global Privacy Assembly, *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[1012] *2020 GPA Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

However, in the Lisboa Declaration approved during the XXV International Congress for State Reform and Public Administration of 24-27 November 2020 co-organized by the Latin American Center for Administration for Development (CLAD), a series of actions pertaining to AI were proposed. These actions include i) the assessment of algorithmic models by informing, documenting and publishing the results from pilot projects online, and ii) the further updating of Law No. 8968 to include the ethics of AI specific to algorithmic transparency and the creation of a manual on the ethics of AI for the public administration to use as an instrument to measure and evaluate the impact of AI throughout Costa Rica. These actions were given a time frame ranging from one to four years.[1013]

The proposed reform of law 8968 does provide for algorithmic transparency.[1014] Furthermore, Costa Rica signed a declaration of intent with UNESCO to develop an AI strategy for the country in line with the UNESCO Recommendation on the Ethics of AI which Costa Rica has endorsed and which also provides for algorithmic transparency.[1015]

More generally, transparency is one of the key principles of the 2022 National Code of Digital Technologies.[1016]

AI and Judicial System

A new AI system called Prometea, developed by the Innovation and AI Laboratory of the School of Law of the University of Buenos Aires and the Public Prosecutor's Office of the Autonomous City of Buenos Aires, has been implemented in the judicial system of the Inter-American Court of Human Rights in Costa Rica for its use in judicial cases.[1017] Regardless of whether judicial cases are simple (e.g. minor infractions, traffic accidents, and taxi license disputes) or complex (e.g. murder trials), controversy lies in the inevitable biases of the AI-enabled system and the lack of algorithmic

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[1013] Centro Latinoamericano de Administración Para el Desarrollo, *Inteligencia Artificial y ética en la administración pública* (March 2021), https://clad.org/wp-content/uploads/2021/03/Libro-7-Inteligencia-artificial-y-ética-en-la-gestión-pública.pdf

[1014] *Expediente 22388 Reforma integral a la ley de proteccion de la persona frente al tratamiento de sus datos personales* (actualized text, March 17, 2022), https://delfino.cr/asamblea/proyecto/22388

[1015] Mariana Alvarez, *Costa Rica will be the first country in Central America to have an Artificial Intelligence strategy* (March 1, 2023), https://www.unesco.org/en/articles/costa-rica-will-be-first-country-central-america-have-artificial-intelligence-strategy

[1016] Ministry of Science, Technology and Telecommunications, *National Code of Digital Technologies* (2022), https://www.micitt.go.cr/wp-content/uploads/2022/04/cntd_v.3.0_-_firmado_digitalmente_y_marca_de_hora.pdf

[1017] Morar, D. and Giandana, F. Victor *Frankenstein's responsibility? Determining AI legal liability in Latin America,* Global Information Society Watch (2019), https://giswatch.org/ar/node/6178.

transparency behind the decision-making process. Transparency of the AI system's algorithm, therefore, must be assured to protect due process and the rule of law.[1018]

AI and Hiring

The use of data analytics and AI techniques for hiring, firing and promoting employees in Costa Rica has also been very controversial due to AI systems' bias and lack of transparency. Companies recruiting in Costa Rica must adapt their recruiting processes to accommodate Costa Rican law, especially with regard to discrimination. However, controversy persists because Costa Rican law does not directly regulate the impact or effects of AI on recruitment.[1019]

Costa Rica has piloted a skills and training platform that uses AI to "provide skill development suggestions to participants, based on their abilities, interests and experiences." [1020]

Lethal Autonomous Weapons

Costa Rica is one of the 126 member states signatory to the Convention on Certain Conventional Weapons (CCW) and has participated in CCW meetings in 2016-2019. During the UN General Assembly in October 2013, Costa Rica proposed that critical functions of weapons systems be subject to meaningful human control highlighting the risks and harms identified with the use of armed drones and robotic weapons. In 2016 Costa Rica called for a preemptive ban on lethal autonomous weapons systems.[1021] Costa Rica has continued to advocate for the ban on lethal autonomous weapons. In 2020 the Ministry of Foreign Affairs, together with the Foundation for Peace and Democracy (FUNPADEM), called for

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[1018] Ibid.

[1019] Alvaro Aguilar, Aguilar Castillo Love, *Costa Rica - Artificial Intelligence Bias and Data Transparency in the Legal Workforce: The Use of Data Analytics for Hiring, Firing, and Promotion in Costa Rica* (June, 19)
https://www.americanbar.org/groups/labor_law/publications/ilelc_newsletters/issue-june-2019/artificial-intelligence-bias-and-data-transparency/

[1020] OECD Public Governance Reviews, *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean* (2022), p. 51, https://oecd-opsi.org/wp-content/uploads/2022/03/lac-ai.pdf

[1021] Human Right Watch, *Stopping Killer Robots: Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control* (2020), https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and#:~:text=Costa%20Rica,-At%20the%20UN&text=%5B74%5D%20It%20called%20for%20a,killer%20robots%20in%202016%2D2019.

the prohibition of the use of Lethal Autonomous Weapons (LAWs).[1022] Still in 2020, while intervening as a member of the Group of Governmental Experts (GGE) on emerging technologies in the area of LAWS, Costa Rica advocated for the development of international legally binding agreements providing for prohibitions and regulations on autonomous weapons systems.[1023]

Costa Rica was among the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 UN General Assembly meeting. In this joint statement, States urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[1024]

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In February 2023, the Costa Rican Ministry of external relations, together with the Foundation for Peace and Democracy, organized the Latin American and Caribbean Conference on the social and humanitarian impact of autonomous weapons. This resulted in the endorsement, by Costa Rica

[1022] *Fundación Arias y Cancillería de Costa Rica firman Convenio de Cooperación sobre el TCA y POA*, https://att-assistance.org/es/node/6601

[1023] Intervention from Costa Rica (September. 21, 2022), https://documents.unoda.org/wp-content/uploads/2020/09/Intervention-of-Costa-Rica-GGE-Laws-21.09.2020-ENG-PDF.pdf.

[1024] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[1025] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

and more than 30 other Latin American and Caribbean states, of the Belén Communiqué,[1026] which calls for "urgent negotiation" of a binding international treaty to regulate and prohibit the use of autonomous weapons to address the grave concerns raised by removing human control from the use of force.

Human Rights

Costa Rica is considered one of the best countries in Latin America for upholding Human Rights.[1027] In 2022, Freedom House ranked the country free, receiving an overall score of 91/100 and a score of 87/100 for freedom on the internet. Human rights in Costa Rica predominantly stem from UNDHR,[1028] the country's Constitution, and the Inter-American Human Rights System.

OECD / G20 AI Principles

Costa Rica endorsed the OECD AI Principles for designing safe, fair, trustworthy and robust AI systems[1029] before becoming a member of OECD on May 25, 2021.[1030]

Several proposed policies of Costa Rica's national digital transformation strategy, in which AI is included, align with the OECD AI principles. These include a focus on inclusive growth; human-centered values and fairness; transparency; robustness, security, and safety; and accountability.[1031]

[1026] *Communiqué of the Latin American and the Caribbean Conference of Social and Humanitarian Impact of Autonomous Weapons* (Feb. 24, 2023), https://www.rree.go.cr/files/includes/files.php?id=2261&tipo=documentos

[1027] Wikipedia, *Human Rights in Costa Rica*, https://en.wikipedia.org/wiki/Human_rights_in_Costa_Rica.

[1028] Wikipedia, *Human Rights in Costa Rica*, https://en.wikipedia.org/wiki/Human_rights_in_Costa_Rica.

[1029] OECD NewsRoom, *Forty-two countries adopt new OECD principles on Artificial Intelligence.* (May. 22, 2019), https://www.oecd.org/newsroom/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[1030] Banco Interamericano de Desarrollo, *La importancia de establecer un marco orientador de política pública para el uso responsable y ético de la inteligencia artificial y su aplicación en Costa Rica* (Nov. 2021), https://publications.iadb.org/es/la-importancia-de-establecer-un-marco-orientador-de-politica-publica-para-el-uso-responsable-y

[1031] Ministry of Science, Technology and Telecommunications, Código Nacional de Tecnologías Digitales v 3.0. (2022), https://www.micitt.go.cr/wp-content/uploads/2022/04/cntd_v.3.0_-_firmado_digitalmente_y_marca_de_hora.pdf

The fAIr LAC hub in the country is a promising initiative because it aims to help in defining an ethical and responsible AI framework,[1032] as well as supporting the country in designing a roadmap for a national AI strategy.[1033]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Costa Rica is one of the 193 countries that adopted the UNESCO Recommendation on the Ethics of AI during the 41st General Conference in November 2021. The instrument is the first of its kind that considers ethics as a basis for normative evaluation and guidance of AI technologies making reference to human dignity and wellbeing, and the prevention of harm.[1034]

CAF, the development bank of Latin America, and UNESCO signed a letter of intent to collaborate on the implementation of the Recommendation in Latin America and the Caribbean. They pledged to create a Regional Council composed of national and local governments in the region which will support their implementation efforts. According to Gabriela Ramos, UNESCO Assistant Director-General for Social and Human Sciences, Costa Rica will be a member of the Regional Council.[1035]

Furthermore, in March 2023, the Ministry of Science, Technology and Telecommunications in Costa Rica signed a declaration of intent with UNESCO to develop an AI strategy for the country in line with the UNESCO Recommendation.[1036]

Evaluation

Costa Rica has not yet set out a dedicated national AI strategy but is now collaborating towards this goal with UNESCO. Costa Rica has specifically endorsed worldwide initiatives focused on the ethical and

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[1032] CINDE, *Invest in Costa Rica, Costa Rica will Promote the Responsible use of Artificial Intelligence with the Support of the Inter-American Development Bank* (Sept. 29, 2021), https://cinde-cr.herokuapp.com/en/essential-news/costa-rica-will-promote-the-responsible-use-of-artificial-intelligence-with-the-support-of-the-interamerican-development-bank

[1033] Pérez, *País carece de estrategia de inteligencia artificial en el estado* (Sept. 18, 2021) El Financiero, https://www.pressreader.com/costa-rica/el-financiero-costa-rica/20210918/281629603405431

[1034] UNESCO, *Ethics of Artificial Intelligence*, https://www.unesco.org/en/artificial-intelligence/recommendation-ethics

[1035] G. Ramos, *Inteligência Artificial ética e responsável: das palavras aos fatos e direitos*, Somos Ibero-America (Feb. 1, 2023), https://www.somosiberoamerica.org/pt-br/tribunas/inteligencia-artificial-etica-e-responsavel-das-palavras-aos-fatos-e-direitos/

[1036] Mariana Alvarez, *Costa Rica will be the first country in Central America to have an Artificial Intelligence strategy* (March 1, 2023), https://www.unesco.org/en/articles/costa-rica-will-be-first-country-central-america-have-artificial-intelligence-strategy

responsible use of AI, including the OECD AI principles and the UNESCO recommendation on the Ethics of AI, and has also participated in the IDB-led fAIr LAC hub. Costa Rica has played a leading role in the adoption by Latin American and Caribbean countries of the Belén Communiqué which calls for the "urgent negotiation" of a binding international treaty to regulate and prohibit the use of autonomous weapons. Costa Rica has an independent data protection agency charged with enforcing its comprehensive data protection law regime. The extensive use of AI both in public and private sectors calls however for a strong recognition of the right to algorithmic transparency and the adoption and implementation of a national AI strategy.

Czech Republic

National Artificial Intelligence Strategy

In 2019, the Czech Ministry of Industry and Trade released the "National Artificial Intelligence Strategy" (NAIS).[1037] The NAIS follows up on the commitment the Czech Republic undertook by signing, together with other EU Member States the 2018 EU Declaration of Cooperation on Artificial Intelligence.[1038] The NAIS is part of the "Innovation Strategy of the Czech Republic 2019-2030"[1039] and the "Digital Czech Republic" strategy.[1040] The NAIS sets out a framework of priority objectives and tools to support AI development in the academic, public and private sectors, mutual cooperation and international engagement.

The aim of the NAIS is to improve the national economic growth and competitiveness in AI by (1) promoting research and development activities; (2) financing research and development, investment support, and development of the AI ecosystem; (3) Creating public service infrastructures and providing access to data for AI development (4) Upgrading human capital and the educational system in order to meet the demands of AI (5) Measuring the impact of AI on labor systems and labor markets (6) addressing legal, societal and ethical aspects of AI, consumer protection and security issues, with reference to the work of the UN, OECD and Council of Europe in the field; (7) Engaging in international cooperation in the field of AI

To achieve these objectives, the Czech Government envisages policy actions across key areas like education, R&D support, financing, industry, social impacts, regulation and international cooperation. For each key area, the Strategy identifies the responsible Ministry, the policy initiatives to develop, the cooperating entities, and key targets until 2021, 2027 and 2035.

[1037] Ministry of Industry and Trade of the Czech Republic, *National Artificial Intelligence Strategy of the Czech Republic,* (2019), https://www.mpo.cz/assets/en/guidepost/for-the-media/press-releases/2019/5/NAIS_eng_web.pdf

[1038] European Commission, *EU Declaration on Cooperation on Artificial Intelligence,* https://ec.europa.eu/jrc/communities/en/node/1286/document/eu-declaration-cooperation-artificial-intelligence

[1039] Council for Research, Development and Innovaiton, *Innovation Strategy of the Czech Republic 2019-2030,* https://ai-watch.ec.europa.eu/countries/czech-republic/czech-republic-ai-strategy-report_en

[1040] Ministry of Industry and Trade of the Czech Republic, *Digital Czech Republic,* https://www.mpo.cz/en/business/digital-society/digital-czech-republic--243601/

The Deputy Prime Minister and Minister of Industry and Trade is directly responsible for the NAIS implementation and will coordinate it through the newly established AI Committee. The AI committee is a subcommittee of the Digital Czech Republic Steering Committee. The Committee primarily includes responsible ministries who are competent to coordinate each specific key area of the Strategy and will be in charge of the NAIS operational management. Working groups are affected to each of the NAIS seven key objectives. Once a year, the Steering Committee and the Czech Government will receive a progress report on the NAIS implementation.

Although the NAIS includes a section dedicated to the legal, societal and ethical aspects of AI, it does not specifically refers to "Fairness," "Accountability," "Transparency," or the "Rule of Law." The NAIS however mentions "maintaining a high level of protection of fundamental and other rights, in line with the European approach of human-centric AI."[1041] In introduction to the NAIS, the Czech Prime Minister stated, "We are going to focus on protecting every person and consumer, their rights and privacy, especially the weakest ones. We are going to prevent discrimination, manipulation and misuse of AI, we are going to set the rules for decision-making of algorithms about people in everyday life."[1042] The NAIS also refers to "securing standards primarily in the areas of security, personal data protection and the protection of fundamental rights in research, development and use of AI." The NAIS provides for the "continuous evaluation of legislative and other legal risks for the competitiveness of the Czech Republic, creation of ethical frameworks and for the national implementation of binding EU regulations and recommenda- tions."[1043]

The NAIS embodies the Government's "commitment to becoming one of Europe's innovative leaders and a country of the technological future within twelve years."[1044] This translates into a position cautioning the EU against overregulation in view of the adoption of an EU AI Act, following the release of the European Commission's White Paper on AI.[1045] In November 2019, the Czech Republic prepared a position non-paper for the

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[1041] *National Artificial Intelligence Strategy of the Czech Republic,* pp. 3, 36.
[1042] *National Artificial Intelligence Strategy of the Czech Republic,* p. 3.
[1043] *National Artificial Intelligence Strategy of the Czech Republic,* p. 34.
[1044] *National Artificial Intelligence Strategy of the Czech Republic*, p. 3.
[1045] Union of Industry and Transport of the Czech Republic, *Joint Position on AI White Paper,* https://www.spcr.cz/aktivity/z-hospodarske-politiky/13720-spolecna-pozice-k-bile-knize-o-umele-inteligenci

EU on the "Regulatory Framework for AI in the EU."[1046] In this non-paper, the Czech Republic recommended to refrain from initial overregulation of AI, to promote self-regulation and soft-law based on best practices, and to define horizontal red lines as a means of ensuring the protection of fundamental rights as well as legal certainty. The Czech Republic also emphasized that "securing the safety of citizens is the very precondition for the true implementation of fundamental human rights and freedoms."

The Czech Republic is also one of 14 EU Member States which urged the Commissionin October 2020 to push for as little regulation as possible in the AI field in order to find a balance between setting up rules and ensuring fast AI development. In their non-paper, Czechia and other EU Member States set out two visions for the EU's development of AI: (1) promoting innovation, while managing risks through a clear framework and (2) establishing trustworthy AI as a competitive advantage.[1047]

Public Participation

The preparations for the NAIS started in 2018 under the responsibility of the Ministry of Industry and Trade and the Office of the Government. The Office was tasked with the coordination of the process, whereas the Ministry was mainly responsible for the substantial writing. During the writing phase other stakeholders were involved in co-writing certain chapters, including representatives of social partners, such as the chamber of commerce and academics. For example, the chapters dealing with the legal and ethical aspects of AI were co-analyzed and written mostly by academics working in that field. Other segments of civil society, however, such as human rights organizations, had no role in the process.[1048] NAIS includes only limited information on formalized participation, simply referring to "Convening stakeholder working groups to coordinate individual chapters to meet their objectives and keeping the AI Committee

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[1046] AI Observatory and Forum, *Regulatory Framework for Artificial Intelligence in the European Union: Non-paper of the Czech Republic* (Fb. 15, 2020), http://observatory.ilaw.cas.cz/index.php/2020/02/15/czech-republics-non-paper-on-ai-regulatory-framework-in-the-eu/

[1047] Denmark Ministry of Industry, Business and Financial Affairs, *Innovative and Trustworhty AI: Two Sides of the Same Coin Position Paper on behalf of Denmark, Belgium, the Czech Republic, Finland, France Estonia, Ireland, Latvia, Luxembourg, the Netherlands, Poland, Portugal, Spain and Sweden,* https://em.dk/media/13914/non-paper-innovative-and-trustworthy-ai-two-side-of-the-same-coin.pdf

[1048] International Center for Not-for-Profit Law, *Being Aiware: Incorporating Civil Society into National Strategies on Artificial Intelligence: Czech Republic* (2020), https://ecnl.org/sites/default/files/2021-02/ECNL%20ICNL%20NAIS%20Czech%20Republic%20Dec%202020.pdf

updated on their functioning" and to "Cooperation with private and non-State actors institutionalized in the form of Memoranda."

In February 2020, Czechia launched the AI Observatory and Forum, an expert platform on legal aspects of AI to create a favorable social and legal environment for research, development and use of responsible AI.[1049] The platform is tasked with identifying legislative obstacles for research, development and use of AI and offering recommendations on their removal, developing legal and ethical recommendations for practice, providing space for public debate and engaging Czechia in international discussions on AI regulation and data economy. Audits in the public and private sector will also detect the existence of legal barriers. The core of the expert platform and forum consists of a team of independent experts which continuously monitors trends in research and development of AI, its social impact, the development of legal and ethical rules in Czechia, in other countries and at international level. The platform cooperates closely with the AI Committee in charge of coordinating the implementation of the NAIS. It is not clear how the general public is involved in the discussions or the work of the Platform. The latest news uploaded to the platform website are from 2020.

Data Protection

Since the Czech Republic is an EU Member State, the General Data Protection Regulation (GDPR)[1050] is directly applicable in Czechia and to Czechs. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[1051] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018.

Regarding the activities of law enforcement authorities, the EU Data Protection Law Enforcement Directive (LED).[1052] protects citizens'

[1049] AI Observatory and Forum, *Czech Republic's Expert Platform and Forum for Monitoring Legal and Ethical Rules for Artificial Intelligence*, http://observatory.ilaw.cas.cz/

[1050] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

[1051] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1052] Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or

fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[1053] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[1054] The LED also requires for Member States, including Italy, to enable data subjects to exercise their rights via national data protection authorities.[1055]

The 2019 Personal Data Processing Act both supplements the GDPR and implements the LED in Czech law.[1056]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

The Czech Republic is also a member of the Council of Europe. It signed but has not yet ratified[1057] the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[1058]

AI Oversight

The Office for Personal Data Protection (DPA) is the national supervisory authority in the Czech Republic. The DPA is in charge of

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prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA, *National transposition – Slovenia*, https://eur-lex.europa.eu/legal-content/EN/NIM/?uri=CELEX:32016L0680

[1053] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1054] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[1055] Article 17 of the LED.

[1056] *Czech Personal Data Protection Act* (March 12, 2019), https://www.uoou.cz/en/vismo/zobraz_dok.asp?id_org=200156&id_ktg=1420&archiv=0&p1=1105

[1057] Council of Europe, *Chart of signatures and ratifications of Treaty 223* (status as of March 22, 2023), https://www.coe.int/en/web/conventions/full-list?module=signatures-by-treaty&treatynum=223

[1058] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

enforcing both the GDPR and the Personal Data Processing Act. Despite being a member of the Global Privacy Assembly (GPA) since 2002, the DPA has not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence;[1059] the 2020 GPA Resolution on AI Accountability;[1060] or the 2022 GPA Resolution on Facial Recognition Technology.[1061]

The Czech Republic has also several oversight bodies for human rights which could make a contribution in field of data protection. The Government Council for Human Rights is a permanent advisory body to the Government with regard to protection of human rights.[1062] The Council is in charge of monitoring compliance with the Constitution and other legislation governing the protection of human rights as well as the national implementation of international commitments of the Czech Republic in the field of human rights. There is similarly a Government Council for Gender Equality, a Government Council for National Minorities, a Government Board for Persons with Disabilities and an Inter-ministerial Commission for Roma Community Affairs.[1063] The Czech Republic Ombudsman, the Public Defender of Rights is a non-accredited associate member of European Network of National Human Rights Institutions.[1064]

Algorithmic Transparency

Although it has not yet ratified the Protocol amending the Convention 108 which provides for algorithmic transparency, the Czech Republic is subject to the GDPR. Czechs have a general right to obtain

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[1059] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1060] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[1061] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[1062] Government of the Czech Republic, *Government Council for Human Rights,* https://www.vlada.cz/en/ppov/rlp/government-council-for-human-rights-50632/

[1063] Government of the Czech Republic, *Advisory and Working bodies,* https://www.vlada.cz/en/ppov/rlp/government-council-for-human-rights-50632/

[1064] European Network of National Human Rights Institutions, *Our Members,* https://ennhri.org/our-members/

access to information about automated decision-making and to the factors and logic of an algorithm.[1065]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[1066] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[1067]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[1068]

[1065] See Recital 63 and Article 22 of the GDPR.

[1066] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1067] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1068] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

Lethal Autonomous

According to the Czech Republic, "it is indispensable for the CCW High Contracting Parties to have sufficient guidance on how to ensure that any new weapon, means or methods of warfare are in compliance with the International Humanitarian Law, which is our main objective" and "welcome[s] the work on Lethal Autonomous Weapons Systems."[1069]

The Czech Republic is one of the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[1070]

In February 2023, Czechia participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Czechia endorsed a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[1071] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of

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[1069] *Statement by Mr. Hani Stolina at the Thematic Discussion on Conventional Weapons of the First Committee of the 74th Session of the General Assembly of the United Nations* (Oct. 23, 2019), https://www.un.org/disarmament/wp-content/uploads/2019/11/statement-by-czech-cw-oct-24-19.pdf

[1070] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[1071] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[1072]

Human Rights

Czechia adopted the United Nations Declaration on Human Rights. As a member of the European Union and of the Council of Europe, Czechia is committed to upholding the EU Charter of Fundamental Rights and the European Convention on Human Rights. According to Freedom House, the Czech Republic is considered "Free" with a combined score of 92/100 in 2023.[1073]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[1074]

OECD / G20 AI Principles

The Czech Republic has been a member of OECD since 1995 and has endorsed the OECD AI Principles.[1075] The NAIS also emphasizes the importance of cooperation with the OECD for the implementation of the

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[1072] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[1073] Freedom House, *Freedom in the World 2023 Country Report* (2023), https://freedomhouse.org/country/czech-republic/freedom-world/2023

[1074] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1075] OECD, *Forty-Two Countries Adopt New OECD Principles on Artificial Intelligence* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

Strategy measures. Exchange of information in expert groups on AI at the OECD, coordination of preparations for negotiations within the OECD are amongst those measures.[1076] The OECD AI Policy Observatory considers that "inclusive growth, sustainable development and well-being; robustness, security and safety; accountability; fostering a digital ecosystem for AI; providing an enabling policy environment for AI; building human capacity and preparing for labour market transition, international co-operation for trustworthy AI" are the OECD AI principles addressed by the NAIS.[1077].

In January 2022, the Czech Republic joined the Global Partnership on AI,[1078] a multi-stakeholder initiative which aims to foster international cooperation on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[1079]

UNESCO Recommendation on the Ethics of Artificial Intelligence

A UNESCO member state since 1993,[1080] Czechia is among the 193 countries that endorsed the UNESCO Recommendation on AI, the first ever global agreement on the ethics of AI.[1081] The Czech Republic has been supporting the implementation of the UNESCO Recommendation by hosting the first ever Global Forum on the Ethics of AI under the Czech Presidency of the Council of the European Union and under the patronage

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[1076] Ministry of Industry and Trade of the Czech Republic, *National Artificial Intelligence Strategy of the Czech Republic* (2019), pp. 36, 38, 39, https://www.mpo.cz/assets/en/guidepost/for-the-media/press-releases/2019/5/NAIS_eng_web.pdf

[1077] OECD AI Policy Observatory, *National AI Strategy of the Czech Republic,* https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-24171

[1078] Ministry of Foreign Affairs of the Czech Republic, *Czech Republic joins Global Partnership for Artificial Intelligence,* https://www.mzv.cz/jnp/en/issues_and_press/press_releases/czech_republic_joins_global_partnership.html

[1079] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/

[1080] UNESCO, *Member States List*, https://en.unesco.org/countries/m

[1081] United Nations Educational, Scientific and Cultural Organization (UNESCO), *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (Nov. 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence.

of UNESCO. in December 2022.[1082] The Global Forum took place in December 2022, one year after the adoption of the UNESCO Recommendation. The forum placed a spotlight on "ensuring inclusion in the AI world," and took stock of the implementation of the recommendation so far.[1083]

Evaluation

The Czech Republic's ambition to become one of the European leaders in the digital field within the next 10 years[1084] has shaped its position with regard to AI policy. Although it adheres to a human centric approach to AI through its commitment to implementing the OECD AI Principles and the UNESCO Recommendation on the Ethics of AI, Czechia has consistently stood against "overregulation," notably through the EU AI Act, and strives with its national AI strategy to remove what it considers as legal impediments to AI development. The Czech Republic has not yet ratified the modernized Convention 108 for the protection of individuals with regard to the processing of personal data. It remains to be seen what the stance of the Czech Republic will be under the new Presidency of retired army general and former NATO military committee Chief Petr Pavel, not only with regard to regulating AI but also to AI-powered surveillance and Hyper War.

[1082] Ministry of Foreign Affairs of the Czech Republic, *Protocol and Administrative Information Note Global Forum on the Ethics of AI,* https://www.globalforumai.cz/documents/GFAI_Logistical_Note.pdf

[1083] UNESCO, *First Global Forum on Ethics of AI held in Prague, one year after the adoption of UNESCO's Recommendation,* https://www.unesco.org/en/articles/first-global-forum-ethics-ai-held-prague-one-year-after-adoption-unescos-recommendation

[1084] Ministry of Industry and Trade of the Czech Republic, *National Artificial Intelligence Strategy of the Czech Republic* (2019), p. 3, https://www.mpo.cz/assets/en/guidepost/for-the-media/press-releases/2019/5/NAIS_eng_web.pdf

Denmark

National AI Strategy

The Danish government unveiled their national AI strategy in March 2019.[1085] The Danish strategy on AI development outlines the issues that must be tackled, and defines specific policy efforts and key initiatives. The national AI strategy intends to establish Denmark as a leader in responsible AI development. There are four objectives to accomplish this goal:
- Establish a consistent ethical and human-centered foundation for artificial intelligence;
- Prioritize and promote research in artificial intelligence;
- Encourage the growth of Danish firms through the development and use of artificial intelligence;
- Ascertain that the public sector utilizes AI to provide world-class services to citizens and society.

The strategy covers both the public and the private sector and presents key challenges, focus areas, policy initiatives as well as priority areas. It aims to create a framework that shall improve the level of trust in AI. Therefore, the strategy states six principles for AI, including self-determination, human dignity equality and justice, and addresses also responsibility and explainability.[1086] The national strategy establishes priority areas to lift the work of AI within Denmark. These priority areas are healthcare, energy and utilities, agriculture and transport.

Denmark has also issued several digital strategies to create the foundation for digital development. They refer briefly to AI. The current Joint Government Digital Strategy runs form 2022 until 2025 and "shall seize opportunities of digital development in Denmark". It contains topics such as labour shortage, climate change, migration and digital inclusion and introduces 28 initiatives. The Joint Government Digital Strategy aims to allow a broad civil participation. The previous Joint Government Digital Strategy ran form 2016-2020. It established three objectives: To create digital solutions simple to use and of high quality, To provide favorable conditions for growth, and To always promote security and confidence. [1087]

[1085] The Danish Government, *National Strategy for Artificial Intelligence* (2019), *https://en.digst.dk/media/19337/305755_gb_version_final-a.pdf*
[1086] The Danish Government, National Strategy for Artificial Intelligence (2019), https://en.digst.dk/media/19337/305755_gb_version_final-a.pdf
1087 Agency for Digital Government, The Joint Government Digital Strategy, https://en.digst.dk/strategy/the-joint-government-digital-strategy/

Nordic-Baltic and Nordic Cooperation on AI

As for the regional landscape, the Danish Minister for digitalization signed the declaration on "AI in the Nordic-Baltic region" establishing a collaborative framework on "developing ethical and transparent guidelines, standards, principles and values to guide when and how AI applications should be used" and "on the objective that infrastructure, hardware, software and data, all of which are central to the use of AI, are based on standards, enabling interoperability, privacy, security, trust, good usability, and portability."[1088]

The ministerial declaration Digital North 2.0[1089] builds on the common priorities of the Nordic-Baltic countries, and follows the previous ministerial declaration, Digital North 2017-2020. "In order to promote work with digitalisation, co-ordinate efforts, and follow up on the goals of the declaration, a council of ministers for digitalisation (MR-DIGITAL) was established in 2017. The aim is to promote development in three areas: (1) Increase mobility and integration in the Nordic and Baltic region by building a common area for cross-border digital services; (2) Promote green economic growth and development in the Nordic-Baltic region through data-driven innovation and a fair data economy for efficient sharing and re-use of data; and (3) Promote Nordic-Baltic leadership in the EU/EEA and globally in a sustainable and inclusive digital transformation of our societies."[1090]

In November 2021, the Nordic and Baltic ministers for digitalization released another joint statement announcing a focus on digital inclusion, striving to implement measures to make digital services more accessible to all Danish inhabitants and ensuring that those who do not possess the necessary level of skills get the opportunity to acquire them. [1091]

In September 2022, the Nordic and Baltic ministers for digitalization issued a common statement on the importance of cooperation on digital security in the Nordic-Baltic region following the COVID-19 pandemic and the war in Ukraine. In their common statement, the ministers stressed that

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[1088] Nordic and Baltic Ministers of Digitalization, *AI in the Nordic-Baltic region* (May 14, 2018), https://www.norden.org/en/declaration/ai-nordic-baltic-region

[1089] Nordic and Baltic Ministers of Digitalization, *Ministerial Declaration Digital North 2.0* (Sept. 29, 2020), https://www.norden.org/en/declaration/ministerial-declaration-digital-north-20

[1090] Nordic Co-operation, *Nordic-Baltic co-operation on digitalisation*, https://www.norden.org/en/information/nordic-baltic-co-operation-digitalisation

[1091] Nordic and Baltic Ministers of Digitalization, *Common statement on the importance of promoting digital inclusion as a central part of the digital transformation in the Nordic-Baltic region* (Nov. 26, 2021), https://www.norden.org/en/declaration/common-statement-importance-promoting-digital-inclusion-central-part-digital

this "rapid transformation has challenged everyone to adapt to new, digital ways of doing business, learning and accessing public authorities." The ministers declared that they "have committed to ensuring that our region maintains its position as a leader in digitalisation, and that everyone in the region benefit from digitalisation regardless of age, wealth, education or level of digital skills. One important factor that helps ensure a strong level of digitalisation in the region is the trust citizens put in digital services from the public sector – be it at regional, national or local level. In order to keep up this high level of trust, we need to continue our efforts to make our digital public services human centric and accessible. (…) Robust and secure digital services, safeguarding users' privacy and ensuring that personal data are stored and processed in a trustworthy way, are crucial to the citizens' sustained trust in digital services."[1092]

As part of its action plan for Vision 2030 (2021-2024), the Nordic Council of Ministers identified innovation, digital integration, the safe use of artificial intelligence, data development and open data, education and digitalization as key objectives.[1093] The Nordic Council of Ministers also emphasizes the involvement of civil society in efforts relating to our vision for 2030 thanks to "a Nordic civil society network and public consultations."[1094]

Public Participation

Denmark provides programs that enable non-governmental actors (e.g., the academic community, business, civil society, and regional and local governments) to express their perspectives or provide expert advice that informs policy-making processes. These policy initiatives enable stakeholders or experts to engage in public discussions to share information and foster collaboration. Public awareness campaigns and civic engagement activities include informing and consulting with members of the public.[1095]

[1092] Nordic and Baltic Ministers of Digitalization, *Common statement on the importance of cooperation on digital security in the Nordic-Baltic region* (Sept. 6, 2022), https://www.norden.org/en/declaration/common-statement-importance-cooperation-digital-security-nordic-baltic-region

[1093] Nordic Council of Ministers, *The Nordic Region – toward being the most sustainable and integrated region in the world, Action Plan for 2021-2024* (Dec. 14, 2020), https://www.norden.org/en/publication/nordic-region-towards-being-most-sustainable-and-integrated-region-world

[1094] Nordic Council of Ministers, *Guidelines for involving civil society in work relating to Our Vision 2030* (Feb. 12, 2021), https://www.norden.org/en/publication/guidelines-involving-civil-society-work-relating-our-vision-2030

[1095] OECD, *Public awareness campaigns and civic participation activities*,

The Danish AI strategy for its part is based on proposals from a Digital Growth Panel[1096] and the Danish Government's Disruption Committee.[1097]

In 2021, the Danish Ministry of Foreign Affairs launched the "Tech for Democracy Initiative" that shall bring together government members, organizations, industries and civil society to ensure that technology works for humans and not the other way round. It wants to establish a multistakeholder dialogue and offers numerous events on AI and human rights.[1098]

In 2021, a new Danish Pioneer Centre for AI opened. It focuses on fundamental AI research and aims to make Denmark a leader in human-centered and ethically responsible AI. The Pioneer Center is a national initiative initiated by the Ministry of Higher Education and Science. It includes research foundations as well as Danish universities.[1099]

In 2022, a Danish political party called "Synthetic Party" led by an AI hoped to be able to stand for Denmark's general election. The party's mission was to raise awareness of the role of AI and its impact on society. Although the party was far from receiving enough signatures of support to be able to stand for the election, it drew attention to the interaction between AI and humans.[1100]

Data Protection

Denmark, like other European countries, has enacted laws to supplement the EU General Data Protection Regulation (GDPR).[1101] In

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https://oecd.ai/en/dashboards/policy-instruments/Public_awareness_campaigns_and_other_outreach_activities

[1096] European Commission, Directorate-General for Communications Networks, Content and Technology, *Digital Growth Strategy 2025* (2021) https://digital-skills-jobs.europa.eu/en/actions/national-initiatives/national-strategies/denmark-digital-growth-strategy-2025

[1097] The Danish Government, Ministry for Economic Affairs and the Interior, *Denmark's National Reform Programme* (2019), https://ec.europa.eu/info/sites/default/files/2019-european-semester-national-reform-programme-denmark-en.pdf

[1098] *Tech For Democracy*, https://techfordemocracy.dk/

[1099] University of Copenhagen, *The Danish Pioneer Centre for AI marks its official opening* https://di.ku.dk/english/news/2022/the_danish_pioneer_centre_for_ai_marks_its_official_opening/

[1100] Det Syntetiske Parti, https://detsyntetiskeparti.wordpress.com/program/

[1101] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data*

Denmark, the GDPR and its Danish supplementary act, the Data Protection Act (DPA)[1102] are the primary regulations governing the processing of personal data. The DPA provides for certain exceptions to the GDPR, most notably regarding the processing of personal data in the employment sector and the processing of national registration numbers.

In 2002, the Danish Act on Personal Data Processing came into force, implementing Directive 95/46 EC. However, despite the fact that the Danish data protection regulation is approximately two decades old, until the GDPR was implemented in 2016, little attention was paid to data protection in Denmark. Prior to 2017–2018, the term 'data protection' was almost unknown to the broader Danish population and many businesses. Thus GDPR compliance has been a hot topic in recent years. Since the GDPR's adoption, Danish businesses have invested in data protection compliance, mostly to mitigate economic and legal risks.

The Danish and other European supervisory authorities have released several recommendations and decisions interpreting the GDPR and relevant national legislation, allowing Danish businesses to conduct significantly more targeted and resource-efficient compliance operations. Denmark has lagged behind the majority of other EU Member States when it comes to data protection knowledge and compliance. So far, there have only been two cases in which fines have been imposed by Danish courts for GDPR breaches. The levels of fines (100.000 DKK and 50.000 DKK) were very low compared to fines in other countries (with fines up to millions). According to some privacy law professionals, there is a significant risk for Denmark to be considered a "safe haven" in relation to fines, which could cause companies that do not want to comply with the GDPR to locate in Denmark.[1103]

Regarding the activities of law enforcement authorities, Denmark transposed the EU Data Protection Law Enforcement Directive (LED)[1104]

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and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

[1102] _Data Protection Act, Act No. 502 of 23 May 2018 on supplementary provisions to the regulation on the protection of natural persons with regard to the processing of personal data and on the free movement of such data,_
https://www.datatilsynet.dk/media/7753/danish-data-protection-act.pdf

[1103] Claas Thöle, _Four years of GDPR: The Danish approach to data protection, or absence thereof?_ (Sept. 15, 2022), https://inplp.com/latest-news/article/four-years-of-gdpr-the-danish-approach-to-data-protection-or-absence-thereof/

[1104] _Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free_

through the Danish Law Enforcement Act.[1105] The LED "protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[1106] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[1107] The LED also requires for Member States, including Denmark, to enable data subjects to exercise their rights via national data protection authorities.[1108]

"Consistency and a high level of protection among Member States is key in order to ensure effective judicial cooperation in criminal matters and police cooperation. The LED provides for the European Data Protection Board (EDPB) [of which the Danish data protection authority is a member] to issue guidelines, recommendations and best practices (on its own initiative or at the Commission's request) in order to ensure that the Member States apply the LED consistently."[1109] The EDPB has produced guidelines on the use of facial recognition technologies in the area of law enforcement.[1110] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict

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movement of such data, and repealing Council Framework Decision 2008/977/JHA, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[1105] *Danish Law Enforcement Act*, https://www.datatilsynet.dk/Media/637998758521368022/The%20Danish%20Law%20Enforcement%20Act.pdf

[1106] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1107] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[1108] Article 17 of the LED.

[1109] Communication from the Commission to the European Parliament and the Council, *First report on application and functioning of the Data Protection Law Enforcement Directive (EU) 2016/680 ('LED')*, COM/2022/364 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0364&qid=1658824345764#footnote136

[1110] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[1111]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Denmark is also a member of the Council of Europe. Although it ratified the Council of Europe's Convention 108 for the protection of individuals with regard to the processing of personal data, Denmark did neither sign nor ratified its modernized version which includes a provision on algorithmic transparency. [1112]

The Danish data protection agency, the Datatilsynet, is the national supervisory authority in Denmark. Despite being a member of the Global Privacy Assembly (GPA) since 2002, the Datatilsynet has not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence;[1113] the 2020 GPA Resolution on AI Accountability;[1114] or the 2022 GPA Resolution on Facial Recognition Technology.[1115]

Algorithmic Transparency

Although it has not yet ratified the Protocol amending the Convention 108 which provides for algorithmic transparency, Denmark is

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[1111] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

[1112] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[1113] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1114] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[1115] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

subject to the GDPR. Danes have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[1116]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[1117] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[1118]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[1119]

[1116] See Recital 63 and Article 22 of the GDPR.

[1117] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1118] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1119] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

Independent Council for Ethical use of Data

According to Statistics Denmark, 83 percent of Danes have confidence in the way public authorities manage personal information.[1120] The government has set a goal of increasing this to 90% by 2024 in world-class digital services. To accomplish this goal and fully exploit the potential of artificial intelligence, the government has set to instill confidence in the public sector's and private sector's work with data and new technologies. The government has established six ethical principles that will serve as the foundation for future development and application of artificial intelligence and has developed several initiatives promoting a strong emphasis on data ethics and establishing a responsible foundation for AI as part of the Danish National Strategy for AI. A critical component of these initiatives is to increase the accountability of both the public and private sectors' use of data and AI by ensuring transparency and compliance with data ethical guidelines. The Danish government established an Independent Data Ethics Council in 2019 with the mission of advising the public and private sectors on data-related ethical issues.

Danish Labeling Program for Digital Accountability

Another key initiative is the "D-seal." The Danish government established an independent labelling scheme in collaboration with a consortium of the Confederation of Danish Industry, the Danish Chamber of Commerce, SMEdenmark, and the Danish Consumer Council. It is supported by the Danish Business Authority and financed by the Danish Industry Foundation. "All companies, regardless of their size, must meet the D-seal's data ethics requirements if they develop software and if they use or develop algorithms and AI." [1121]

"The purpose of the D-seal is to promote data security, data protection and data ethics at Danish companies, so that customers and consumers can feel safe when using the companies' products and services."[1122] The idea is for the seal to create a market incentive for actors to be more data ethical. The D-seal was launched in September 2021.

[1120] Danish Government, *National Strategy for Artificial Intelligence 25 (2019) https://en.digst.dk/media/19337/305755_gb_version_final-a.pdf*
[1121] Birgitte Kofod Olsen, *Danish Labeling Program for Digital Accountability* (Sept. 28, 2021), https://dataethics.eu/danish-labeling-program-for-digital-accountability/; Larsen, F. (2020), *"Denmark: An independent council and a labelling scheme to promote the ethical use of data"*, The AI Wonk, OECD.AI Policy Observatory, https://oecd.ai/wonk/an-independent-council-and-seal-of-approval-among-denmarks-measures-to-promote-the-ethical-use-of-data
[1122] Birgitte Kofod Olsen, *Danish Labeling Program for Digital Accountability* (Sept. 28, 2021), https://dataethics.eu/danish-labeling-program-for-digital-accountability/; Larsen,

The D-seal is based on 8 criteria: A management system for data accountability; Awareness and safe behavior; Technical IT security; Requirements for suppliers' IT security and digital accountability; Transparency and control of data; Privacy & security by design & default; Reliable algorithms & AI; Data ethics.

In 2020, ahead of the negotiations regarding the draft EU AI Act, Denmark, together with 13 other EU Member States, issued a non-paper responding to the European Commission's White Paper on AI.[1123] Through this non paper, Denmark called for a "flexible" framework with voluntary self-labelling schemes. Denmark argued for a risk-based approach towards AI, highlighting that trustworthy and human-centric AI goes hand in hand with innovation, economic growth and competitiveness. The non-paper concludes with a call to the EU for a voluntary European labelling scheme that would make it visible for potential users, for example, citizens, businesses as well as public administrations, which applications are based on secure, responsible and ethical AI and data.[1124]

Lethal Autonomous Weapons

At a 2015 informal meeting of the Convention on Certain Convention Weapons Experts on Lethal Autonomous Weapons Systems, Denmark affirmed that weapons must remain under "meaningful human control.[1125]

In 2020, during the General Debate of the First Committee of the 75th UN General Assembly, the Permanent Representative of Denmark declared, "Denmark supports the work of the GGE on Lethal Autonomous Weapons Systems (LAWS), in particular the 11 guiding principles. In our

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F. (2020), *"Denmark: An independent council and a labelling scheme to promote the ethical use of data"*, The AI Wonk, OECD.AI Policy Observatory, https://oecd.ai/wonk/an-independent-council-and-seal-of-approval-among-denmarks-measures-to-promote-the-ethical-use-of-data

[1123] *Non-paper - Innovative and trustworthy AI: two sides of the same coin*, *Position paper on behalf of Denmark, Belgium, the Czech Republic, Finland, France, Estonia, Ireland, Latvia, Luxembourg, the Netherlands, Poland, Portugal, Spain and Sweden on innovative and trustworthy AI* (Aug. 10, 2020), https://em.dk/media/13914/non-paper-innovative-and-trustworthy-ai-two-side-of-the-same-coin.pdf

1124 Melissa Heikkla, *Key battles ahead for Europe's AI Law* (Apr. 21, 2021), https://www.politico.eu/article/6-key-battles-europes-ai-law-artificial-intelligence-act/,

1125 Government of Denmark, *Statement to the Convention on Conventional Weapons informal meeting of experts on lethal autonomous weapons system*, http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/ccw/2015/meeting-experts-laws/statements/13April_Denmark.pdf

work on these principles we should in particular aim to develop an understanding of the type and degree of human machine interaction."[1126]

Denmark was also one of the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[1127]

In February 2023, Denmark participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Denmark endorsed a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[1128] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil

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1126 *Statement by H.E. Mr. Martin Bille Hermann, Permanent Representative of Denmark General Debate First Committee of the 75th UN General Assembly* (Oct. 19, 2020), https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com20/statements/19Oct_Denmark.pdf

[1127] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[1128] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

society and academia, to collaborate and exchange information on responsible AI in the military domain."[1129]

Human Rights

According to Freedom House, Denmark receives high scores for Political Rights and Civil Liberties for a combined score of 97/100 in 2022. The 2022 Freedom House report notes that "Denmark is a robust democracy with regular free and fair elections. Citizens enjoy full political rights, the government protects free expression and association, and the judiciary functions independently. However, Denmark has struggled to uphold fundamental freedoms for immigrants and other newcomers."[1130] Denmark is a signatory to major human rights treaties, including the Universal Declaration of Human Rights. Denmark has also ratified several European human rights instruments, including the European Convention on Human Rights (ECHR).

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[1131]

The Danish Parliament established the Danish Centre for Human Rights in 1987, which was renamed the Danish Institute for Human Rights in 2002. As Denmark's NHRI (National Human Rights Institute), the Institute has counterparts in other countries.[1132]

[1129] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[1130] Freedom House, *Freedom in the World 2022 – Denmark* (2022), https://freedomhouse.org/country/denmark/freedom-world/2022

[1131] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1132] https://www.humanrights.dk/

The OECD AI Principles

Denmark is a member of the OECD and has endorsed the OECD AI Principles.[1133]

In a 2021, report on the state of implementation of the OECD AI Principles, the OECD noted the progress that Denmark is making towards the implementation of the OECD AI principles.[1134]

Denmark is also a member of the Global Partnership on AI, a multi-stakeholder initiative which aims to foster international cooperation on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[1135]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Denmark has endorsed the UNESCO Recommendations on AI, the first ever global agreement on the ethics of AI.[1136] It remains to be seen how this endorsement will translate in practice.

Evaluation

Denmark's National AI strategy, released in 2019, sets out an ambitious agenda for the country. Denmark has emphasized responsible AI development, established an independent Data Ethics Council, endorsed the OECD AI Principles, and promoted opportunities for public participation in the development of AI policy. Denmark has also introduced certification seals to promote trustworthy AI. In a non-binding paper issued ahead of the EU Act negotiations, Denmark, together with 13 other EU Member States, set out two visions for the EU's development of AI: (1) promoting innovation, while managing risks through a clear framework and (2) establishing trustworthy AI as a competitive advantage.[1137] The question

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[1133] OECD, *Forty-two countries adopt new OECD Principles on Artificial Intelligence* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[1134] OECD, *State of Implementation of the OECD AI Principles: Insights from National AI Policies* (June 18, 2021), https://www.oecd.org/digital/state-of-implementation-of-the-oecd-ai-principles-1cd40c44-en.htm

[1135] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/

[1136] United Nations Educational, Scientific and Cultural Organization (UNESCO), *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (Nov. 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence.

[1137] *Non-paper - Innovative and trustworthy AI: two sides of the same coin, Position paper on behalf of Denmark, Belgium, the Czech Republic, Finland, France, Estonia,*

that Denmark's position raises is whether Denmark considers AI ethics as a means for AI deployment or the respect of ethical principles as a condition for AI deployment. As Denmark has endorsed the UNESCO Recommendation on the Ethics of AI, it remains to be seen the steps Denmark will take to translate it into practice. The ratification of the modernized Convention 108 for the protection of individuals with regard to the processing of personal data would also be a strong signal that Denmark prioritizes the fundamental rights of its citizens.

Ireland, Latvia, Luxembourg, the Netherlands, Poland, Portugal, Spain and Sweden on innovative and trustworthy AI (2020),
https://www.permanentrepresentations.nl/documents/publications/2020/10/8/non-paper---innovative-and-trustworthy-ai

Dominican Republic

National AI Strategy

The Dominican Republic does not currently have a National Strategy on Artificial Intelligence (AI). AI has been addressed through other national and regional initiatives. The Dominican Republic's Ministry of Economy, Planning and Development (MEPyD) as described as "the pillars of the fourth industrial revolution, the internet of things, Big Data and big data analysis, cloud computing, artificial intelligence, among other aspects of the technology."[1138] MEPyD Minister Juan Ariel Jiménez recognized that "large volumes of data, artificial intelligence and blockchain are transforming economic activities around the world. This technological trend has repercussions on production, social interaction, planning and, of course, on public management."

The Dominican Republic has focused on the use of AI in the fields of public management and economic development. In 2021, President Luis Abinader issued Decree 71-21, establishing the Digital Transformation Cabinet[1139] to oversee the Dominican Republic's Digital Agenda 2030. The Cabinet "responds to the government's vision of making information and communication technologies a strategic tool for sustainable development (…) and inclusive for Dominican society."[1140] Lisandro Macarrulla, Minister of the Presidency, stressed that the Agenda "will raise national productivity and competitiveness levels, placing us in a better position in global markets (…) [and] will improve the quality of life of citizens because they will be able to receive more and better services from the State and they will develop new skills that will allow them to access better jobs."[1141] The Digital Agenda 2030 builds on previous digital strategies to address new technological challenges while incorporating a long-term vision that involves all social actors in its design and implementation. The Vice

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[1138]Gobierno de la República Economía, *Planificación, MEPYD uses artificial intelligence to improve decision-making in public management* (Nov. 28, 2019), https://mepyd.gob.do/mepyd-utiliza-inteligencia-artificial-mejorar-la-toma-decisiones-la-gestion-publica

[1139] Presidencia de la República Dominicana, *President Abinader creates the Digital Transformation Cabinet*, 26 Aug. 2021, https://presidencia.gob.do/noticias/presidente-abinader-crea-el-gabinete-de-transformacion-digital

[1140] Presidencia de la República Dominicana (Aug. 26, 2021), https://presidencia.gob.do/noticias/presidente-abinader-crea-el-gabinete-de-transformacion-digital; Luis Abinader, *Decree 571-21* (Aug. 26, 2021). https://presidencia.gob.do/sites/default/files/decree/2021-08/Decreto%20527-21%20Agenda%20Digital%202030.pdf.

[1141] Ibid.

Minister of the Digital Agenda, José David Montilla, stated that working groups and thematic committees have been created that "include members of the cabinet, representatives of public and private institutions involved, specialists and volunteers, who will develop each of the pillars of the Agenda."

The Digital Agenda 2030 is divided into five main axes: 1) governance and regulatory framework; 2) Connectivity and access 3) education and digital skills; 4) digital government; and 5) digital economy. Each of these axes responds to specific objectives through performance measurement indicators. "By 2030, the Dominican Republic expects to have reduced the digital divide and ensured access to, and use of, digital technologies in a secure and sustainable environment."[1142] The Digital Agenda has been developed in line with the broader development strategy, more particularly with regard to addressing the digital divide through education.

Digitalization and transparency are among the cross-cutting themes that will be addressed through the Inter-Development Bank's country strategy with the Dominican Republic for the 2021-2024 period. The aim of the strategy is "to assist the country in recovering a robust pace of economic growth consistent with inclusive, resilient, and sustainable development."[1143] The IDB will concentrate its actions on three areas: "(i) improvement of public management and fiscal institutional structure; (ii) sustainable and inclusive productive reactivation; and (iii) strengthening of human capital."[1144]

The Dominican Republic has also been part of the Caribbean Artificial Intelligence Initiative led by the UNESCO Cluster Office for the Caribbean and the Broadcasting Commission of Jamaica (BCJ), with the support of UNESCO Information for all Program (IFAP) National Committee of Jamaica.[1145] The Initiative "aims to develop a sub-regional strategy on the ethical, inclusive and humane use of AI in the Caribbean Small Island Developing States".[1146] The Caribbean AI Policy Roadmap

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[1142] OECD, *Multidimensional Review of the Dominican Republic: Towards Greater Well-Being for All* (Dec. 13, 2022), https://www.oecd-ilibrary.org/development/multi-dimensional-review-of-the-dominican-republic_560c12bf-en
[1143] Inter-American Development Bank, *Dominican Republic – Overview*, https://www.iadb.org/en/countries/dominican-republic/overview
[1144] Inter-American Development Bank, *Dominican Republic – Overview*, https://www.iadb.org/en/countries/dominican-republic/overview
[1145] UNESCO, *Cluster Office of the Caribbean*, https://en.unesco.org/caribbean-artificial-intelligence-initiative
[1146] UNESCO, *Cluster Office of the Caribbean*, https://en.unesco.org/caribbean-artificial-intelligence-initiative

was released in June 2021,[1147] following a period of stakeholder consultation.[1148]

On February 18-19, 2021, a two-day "Artificial Intelligence Forum: Opportunities to Accelerate Human Progress for Sustainable Development in Caribbean Small Islands Developing States"[1149] as organized to collect input from diverse stakeholders regarding AI policy topics. Only 1% of the stakeholder participants were from the Dominican Republic.[1150] In April 2021, three additional workshops addressing the AI Policy Roadmap principles were held with stakeholders from the private sector, academia, civil society and youth.[1151]

The Caribbean AI Policy Roadmap acknowledges that "AI systems raise new types of ethical issues that include, but are not limited to, their impact on decision-making in employment and labour, social interaction, health care, education, media, freedom of expression, access to information, privacy, democracy, discrimination, and weaponization. Furthermore, new ethical challenges are created by the potential of AI algorithms to reproduce biases, for instance regarding gender, ethnicity, and age, and thus to exacerbate already existing forms of discrimination, identity prejudice and stereotyping. As Caribbean nations expand their adoption of AI tools and other exponential technologies, stakeholders (policymakers, citizens, private sector, academia, and NGOs) must proactively collaborate to create strategies for the humanistic development of guidelines, regulations and laws. Boundaries should be defined to regulate the AI decision-making, AI rights, inclusion of manual overrides and AI accountability protocols."

The Policy Roadmap has been developed based on a series of "assumptions" about the Caribbean and Artificial Intelligence. These include: "Human creativity is inextricably linked to Caribbean identify, economic viability and sustainable development"; "AI is a product of

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[1147] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

[1148] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), p. 2, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

[1149] UNESCO, *How can AI contribute to sustainable development? Caribbean Artificial Intelligence Forum*, (Feb. 18, 2021), https://en.unesco.org/news/how-can-ai-contribute-sustainable-development-caribbean-artificial-intelligence-forum

[1150] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

[1151] UNESCO, *Pioneering Artificial Intelligence Policy in the Caribbean* (Apr. 14, 2021), https://en.unesco.org/news/pioneering-artificial-intelligence-policy-caribbean

human creativity"; "AI is in service of humanity"; "AI must be inclusive, fair, transparent, accountable"; "AI must be regulated"; "Human rights supersede AI rights"; "Bias is everywhere in AI"; "We Are Our Data"; "Data rights will be the civil rights movement of the 21st century."[1152]

The Policy Roadmap is based on six principles: Resiliency, Governance, Transformation, Upskilling, Preservation and Sustainability.[1153] With regard to governance, actions to be taken include:

- "Develop Responsible AI Governance, Oversight, Principles & Policies to Do No Harm and to enhance safety, security and accountability of AI.
- Promote AI as a tool for service to humanity.
- Establish common values and principles to ensure fairness, transparency and accountability in digital transformation and increased integration of AI algorithms.
- Develop policy and legislation to enable the establishment of national and regional AI Governance Committees / Oversight Boards as well as national and regional licensing regime to manage and monitor the development of standards that govern the industry including technical code of conduct for developers, procurement guidelines for buyers, design and use principles and ethically aligned design standards.
- Regulate AI industry to provide redress and punishment for individuals & companies that violate citizen rights and wellbeing including banning cyberbullying, hate crimes, discriminatory algorithms, disinformation and graphically violent images inclusive of penalties and fines.
- Develop an AI Appeal Court and Online Dispute Resolution System.
- Increase advocacy for AI ethics by targeting software developers at global forums and hosting a global software conference to network, lobby, share research and initiate collaborations with big tech.

[1152] Caribbean Artificial Intelligence Initiative, *Caribbean AI Policy Roadmap* (2021), p. 5, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

[1153] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), p. 11, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

- Develop AI software to test AI for biases and identify AI applications in most need of governance. Protect citizen privacy and instill trust."[1154]

The Dominican Republic is also a member of the Community of Latin American and Caribbean States (CELAC) and participated in its seventh Summit on the 24 January 2023 in Buenos Aires. The Summit culminating in the signature of the " Buenos Aires Declaration" which fortifies the commitment to safeguard the rights and interests of citizens of the signatories, including the Dominican Republic, fostering greater regional integration and collaboration on topics such as AI-based cyberthreats and disinformation.[1155]

Public Participation

To engage with external stakeholders in development of digital service and policy design, the Dominican Republic used focus groups, public consultations and social media.[1156] There is however so far no national AI strategy or consultations to this end.

Data Protection

The Dominican Constitution enshrines the right to the protection of personal data in public and private records under Section 44(2) and provides that data controllers and processors are to comply with data security, professional secrecy, data quality and data loyalty.[1157]

The Dominican Republic issued Law No 172-13 on the Comprehensive Protection of consumers or users.[1158] There is no established general data protection authority. The General Law for the Protection of Consumer or User Rights No 358-05 declared that the National Institute for the Protection of Consumer Rights, "Pro Consumidor"

[1154] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), p. 41, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

[1155] CELAC Summit, *Declaration of Buenos Aires Ministry of Foreign Affairs*, (Jan. 24, 2023), https://www.cancilleria.gob.ar/userfiles/prensa/declaracion_de_buenos_aires_-_version_final.pdf

[1156] OECD, *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the* Caribbean (2022), p. 155, https://oecd-opsi.org/wp-content/uploads/2022/03/lac-ai.pdf

[1157] *The Constitution* https://www.constituteproject.org/constitution/Dominican_Republic_2015.pdf

[1158] WIPO, *The Dominican Republic issued Law No 172-13 on the Comprehensive Protection of the consumer or User* (2013), https://www.wipo.int/wipolex/en/legislation/details/11048

monitors data protection compliance in relation to consumers. Pro Consumidor does not have enforcement powers although they do have mediation and conciliation competences.[1159]

The Dominican Republic has started to draft a new data protection law in line with international standards such as the Council of Europe's Convention 108+, and has received support from the Council of Europe to this end.[1160] Should the initiative come to fruition, it would be an opportunity for the Dominical Republic to provide data subjects with the right to algorithmic transparency which is one of the main innovation of the modernized Convention 108.

The Dominican Republic developed a Digital Government guide that includes a provision on the documentation and explainability of digital government initiatives, software, and services. However, specific guidelines for algorithmic transparency and explainability are not provided.[1161]

Facial Recognition

In 2021, the Dominican Republic's General Director of Immigration, Enrique García, reported that facial recognition technology will be used to enforce security in airports and border entry to combat drug trafficking and international crime.[1162] In September 2022, the Dominican Airport Association explained that there are intelligent security cameras" in Dominican airports.[1163]

[1159] Ibid.

[1160] Council of Europe, *GLACY+: The Dominican Republic works on new data protection law* (Dec. 2019), https://www.coe.int/en/web/cybercrime/glacyplusactivities/-/asset_publisher/DD9qKA5QlKhC/content/glacy-the-dominican-republic-works-on-new-data-protection-law?inheritRedirect=false&redirect=https%3A%2F%2Fwww.coe.int%2Fen%2Fweb%2Fcybercrime%2Fglacyplusactivities%3Fp_p_id%3D101_INSTANCE_DD9qKA5QlKhC%26p_p_lifecycle%3D0%26p_p_state%3Dnormal%26p_p_mode%3Dview%26p_p_col_id%3Dcolumn-4%26p_p_col_count%3D1

[1161] OECD, *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean* (March 22, 2022), https://www.oecd-ilibrary.org/governance/the-strategic-and-responsible-use-of-artificial-intelligence-in-the-public-sector-of-latin-america-and-the-caribbean_1f334543-en

[1162] Arecoa, *DR airports will strengthen security with facial recognition technology* (Apr. 20, 2021), https://www.arecoa.com/aeropuertos/2021/04/20/aeropuertos-rd-reforzaran-seguridad-tecnologia-reconocimiento-facial/

[1163] Dominican Republic Today, *Airport Association assures security cameras make criminal actions "extremely difficult"* (Sept. 16, 2022), https://dominicantoday.com/dr/economy/2022/09/16/airport-association-assures-security-cameras-make-criminal-actions-extremely-difficult/

In March 2022, the Director of the General Directorate of Passports (DGP) said that the country will transition from using mechanical passports to electronic passports. "the director of the DGP explained that the electronic passport would have an integrated chip that facilitates facial recognition and will contain all the carrier information. However, Pichardo added that at the moment, this change does not have a scheduled date because advice is being sought to prevent errors that entail significant expenses, as has happened with other countries."[1164]

Lethal Autonomous Weapon

The Dominican Republic endorsed 2019 Declaration on Lethal Autonomous Weapons prepared by France and Germany and opened for endorsement during the Alliance for Multilateralism event on 26 September 2019. The Declaration posits 11 Principles on Lethal Autonomous Weapons Systems. These principles respond to challenges relating to the development of LAWS within the UN's Convention of Certain Conventional Weapons (CCW).[1165] These principles affirm among others that "international humanitarian law applies to these systems; a human must always be responsible for the decision to use these systems; [and] States must examine the legality of these new weapons that they are developing or requiring at the design stage.

The Dominican Republic is one of the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[1166]

[1164] Dominican Today, *General Directorate of Passports with a view to changing to electronic passport* (March 10, 2022),
https://dominicantoday.com/dr/local/2022/03/10/address-of-passports-with-a-view-to-changing-to-electronic-passport/

[1165] France Diplomacy, *11 Principles on Lethal Autonomous Weapons Systems (LAWS),*
https://www.diplomatie.gouv.fr/en/french-foreign-policy/united-nations/multilateralism-a-principle-of-action-for-france/alliance-for-multilateralism/article/11-principles-on-lethal-autonomous-weapons-systems-laws#sommaire_2

[1166] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022),
https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

In February 2023, the Dominican Republic endorsed, along with more than 30 other Latin American and Caribbean states, the Belén Communiqué,[1167] which calls for "urgent negotiation" of a binding international treaty to regulate and prohibit the use of autonomous weapons to address the grave concerns raised by removing human control from the use of force.

Human Rights

In 2022 Freedom House ranked the Dominican Republic as "partly free," with a score of 68/100 for political rights and civil liberties[1168], with slight improvement from 2021.[1169] According to Freedom House 2022 report, "The Dominican Republic holds regular elections that are relatively free, though recent years have been characterized by controversies around implementing a new electoral framework."[1170]

OECD/G20 AI Principles

The Dominican Republic has not endorsed the OECD AI principles.[1171] According to OECD AI Principle 2.5 regarding international co-operation for trustworthy AI, "Governments, including developing countries and with stakeholders, should actively cooperate to advance these principles and to progress on responsible stewardship of trustworthy AI. Governments should work together in the OECD and other global and regional fora to foster the sharing of AI knowledge, as appropriate." The OECD acknowledges the work of the Inter-American Development and its ""fAIr LAC" initiative to promote the responsible and ethical use of AI and improve the public services e.g., education, health, and social protection, in Latin American and Caribbean (LAC) countries,"[1172] which includes the Dominican Republic.

[1167] Communiqué of the Latin American and the Caribbean Conference of Social and Humanitarian Impact of Autonomous Weapons (Feb. 24, 2023), https://www.rree.go.cr/files/includes/files.php?id=2261&tipo=documentos

[1168] Freedom House, *Freedom in the World 2022 – Dominican Republic,* https://freedomhouse.org/country/dominican-republic/freedom-world/2022

[1169] Freedom House, *Freedom in the World 2021 – Dominican Republic* (2021), https://freedomhouse.org/country/dominican-republic/freedom-world/2021

[1170] Ibid.

[1171] OECD AI Observatory, *Forty-two countries adopt new OECD Principles on Artificial Intelligence,* https://www.oecd.org/newsroom/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[1172] OECD, *State of implementation of the OECD AI Principles* (June 2021), p. 76, https://www.oecd-ilibrary.org/docserver/1cd40c44-

In 2022, the OECD, in partnership with the Development Bank of Latin America (CAF) also published a report on "The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean" including the Dominican Republic.[1173]

UNESCO Recommendations on the Ethics of AI

The Dominican Republic is a member state of UNESCO.[1174] The Dominican Republic endorsed the UNESCO Recommendations on AI Ethics.[1175] The CAF and UNESCO signed a letter of intent to implement the Recommendation in Latin America and the Caribbean and support the establishment of a Regional Council which incorporates all governments of the region.[1176] There is so far no official announcement by the Dominican Republic regarding its involvement and the measures it will take in this regard.

Evaluation

The Dominican Republic has not endorsed or implemented the OECD AI Principles, does not have a national AI policy or a modernized data protection law. It does not have either an independent data protection authority. However, the Dominican Republic's participation in regional initiatives such as the Caribbean AI Policy Roadmap, the Buenos Aires Declaration or the Belén Communiqué with regard to autonomous weapons, as well as its endorsement of the UNESCO Recommendation on the Ethics of AI are encouraging steps. Its collaboration with the Council of Europe towards the modernization of its data protection legal regime as well. Otherwise, concerns with regard the use of AI for surveillance purposes among other issues will remain unaddressed.

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en.pdf?expires=1679145707&id=id&accname=guest&checksum=4A7E8011553F4B626AD9EF4C04ACCDE1.

[1173] OECD, *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean* (March 22, 2022), https://www.oecd-ilibrary.org/governance/the-strategic-and-responsible-use-of-artificial-intelligence-in-the-public-sector-of-latin-america-and-the-caribbean_1f334543-en

[1174] UNESCO Member States, https://pax.unesco.org/countries/ListeMS.html.

[1175] United Nations, *193 countries adopt first-ever global agreement on the Ethics of Artificial Intelligence* (Nov. 25, 2021), https://news.un.org/en/story/2021/11/1106612.

[1176] UNESCO, *CAF and UNESCO will create a council to review ethical criteria for artificial intelligence in Latin America and Caribbean* (June 23, 2022), https://www.unesco.org/en/articles/caf-and-unesco-will-create-council-review-ethical-criteria-artificial-intelligence-latin-america-and.

Egypt

National AI Strategy

In November 2019, the Egyptian Cabinet approved the formation of a National Council for Artificial Intelligence (NCAI) tasked with "outlining, implementing and governing the AI strategy in close coordination with the concerned experts and entities."[1177] The Technical Committee of the National Council for Artificial Intelligence, composed of representatives from all relevant government entities, as well as independent experts in the field of Artificial Intelligence (AI)[1178] released the National AI Strategy in 2021. On this occasion, the President of the Arab Republic of Egypt, Abdel Fattah Al–Sisi, stated, "We strongly believe that as emerging technologies create opportunities, they also pose challenges that we should be prepared for. Thus, we aim, through the National AI Strategy, to open the door to dialogue with stakeholders and promote international cooperation to exchange views on the best practices for developing and using AI to build the common good. This is in addition to adopting and leading strong stances on AI ethics and the social and economic impact of using AI applications in African and Arab countries, under the umbrella of the African Union (AU) and the League of Arab States (LAS) to reach a common vision that reflects our needs and aspirations, and conforms to our values and principles."[1179]

The National AI Strategy builds on the previous work of the Ministry of Communications and Information Technology and the Ministry of Higher Education and Scientific Research, along with input from independent experts and private sector companies.[1180]

The two main objectives of the Egyptian National AI Strategy are to: "Exploit AI technologies to support the achievement of Egypt's sustainable development goals, to the benefit of all Egyptians; Play a key

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[1177] National Council for Artificial Intelligence (NCAI), Ministry of Communications and Information Technology (Egypt), https://mcit.gov.eg/en/Artificial_Intelligence
[1178] Ministry of Communications and Information Technology, *Egypt National Artificial Intelligence Strategy* (July 2021), paragraph 2, https://mcit.gov.eg/Upcont/Documents/Publications_672021000_Egypt-National-AI-Strategy-English.pdf
[1179] Ministry of Communications and Information Technology, *Egypt National Artificial Intelligence Strategy* (July 2021), paragraph 10, https://mcit.gov.eg/Upcont/Documents/Publications_672021000_Egypt-National-AI-Strategy-English.pdf.
[1180] Ibid.

role in facilitating regional cooperation within the African and Arab regions and establish Egypt as an active international player in AI."[1181]

The strategy consists of four pillars:

1) AI for government: the automation of government processes and the embedding of AI in decision-making cycles in order to increase efficiency and transparency.
2) AI for development: the application of AI in different economic sectors, prioritizing agriculture/environment/water management; healthcare; Arabic natural language processing; economic planning and development; and manufacturing and smart infrastructure management.
3) Capacity building: increasing general awareness of AI and providing professional training.
4) International activities: fostering cooperation at both the regional and the international level.

In turn, these four pillars are supported by four categories of enablers:

1) Governance: including ethics, laws and regulations, tracking and monitoring.
2) Data: including collection, management and monetization strategies.
3) Ecosystem: including private sector, research and academia, and civil society
4) Infrastructure: including fair access to compute, storage, networking, and other assets.[1182]

When it comes to "Governance" as an enabler, the National Strategy has shed light on the importance of adopting responsible/ethical AI policies, legislations and regulations "to mitigate potential misuse [of AI and] (...) promote and enable the widespread adoption of AI solutions."[1183]

Towards that end, the National Strategy has put in place the following Key Performance Indicators (KPIs) to assess the status of ethical AI in Egypt:

- The establishment of a dedicated track within NCAI for AI Ethics
- Publish Guidelines for Responsible and Ethical development of AI
- A set of rules and regulations for responsible AI use

[1181] Ibid.
[1182] *Egypt National AI Strategy*
[1183] *Egypt National AI Strategy*, paragraph 10.1.2.

- Ethics in AI/technology courses being offered in universities as part of computing degrees[1184]

In this regard, the most significant milestone is the adoption of the Egyptian Charter for Responsible AI in February 2023, which offers "actionable insights and policies for decision makers in government, academia, industry, and civil society."[1185] Egypt's efforts were also witnessed in establishing AI Faculties at Egyptian universities and teaching AI ethics in computer science faculties.[1186]

The National Strategy is implemented in a phased approach. The first phase (2020-2022) focused on "training graduates and professionals to fulfil market needs and proving the value of AI in the different strategic sectors by starting pilot projects within government in partnership with local and foreign entities" as well as "[B]uilding regional bridges to unify AI efforts on the African and Arab levels, as well as active participation in international organizations on topics such as AI Ethics, AI for SDGs, and the impact of AI on labor markets and education." .[1187] In the second phase (2023-2026), the emphasis will be placed on expanding AI into additional sectors. The government intends to establish a "paperless, collaborative, and smart" government.[1188] Egypt signed a Memorandum of Understanding (MoU) with Thales, a French technology solutions company in order to integrate AI solutions to governmental services and to build AI capacity.[1189]

Egypt is actively working to bring the perspective of developing countries to international discussions, thereby helping to narrow the AI knowledge and development gap between developed and developing countries.[1190] In 2019, Egypt participated in the drafting of the UNESCO Recommendation on the Ethics of AI, serving as the Ad Hoc Expert Group's vice-chair.[1191]

Egypt is also positioning itself as a regional leader in the AI and digital policy world. In 2019, Egypt hosted the third session of the African Union (AU) Specialized Technical Committee on Communication and

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[1184] Ibid.

[1185] Egypt AI Platform, *Egyptian Charter for Responsible AI*, https://aicm.ai.gov.eg//en/Resources/EgyptianCharterForResponsibleAIEnglish-Feb2023v01.0.pdf

[1186] *Egypt National AI Strategy*

[1187] *Egypt National AI Strategy*, paragraph 2.

[1188] Ibid.

[1189] Ministry of Communications and Information Technology, *ICT Minister Witnesses Signing MoU between MCIT, Thales to Develop Apps, Build Capacity in AI* (March 16, 2021), https://mcit.gov.eg/en/Media_Center/Press_Room/Press_Releases/63234

[1190] *Egypt National AI Strategy*, paragraph 9.

Information Technologies. This meeting was crowned by the adoption of the "Sharm El Sheikh Declaration", which recognized and reaffirmed the necessity for a coherent African Digital Transformation Strategy "to guide a common, coordinated response to reap the benefits of the Fourth Industrial Revolution".[1192] This showcases the pioneering and regional leadership role Egypt assumes.

Egypt also helped create the AU African Working Group on AI, a group tasked with drafting a continent-wide AI strategy.[1193] This strategy aspires to create a common stance on AI issues, areas of priority, and the role of AI in vital sectors as well as ensure "the governance of AI and the protection and availability of data, and developing AI regulations." The strategy also aims to position the African voice at the center of international fora and to "bridge the digital divide between developed [States] and African countries."[1194] Such active engagement has culminated in Egypt being elected Chair of the African AI Working Group.[1195] In 2021, UNESCO distributed an AI needs assessment to African countries, the results of which would inform the African Union's Working Group future work.[1196] UNESCO distilled their survey findings into four key recommendations: the creation of an AI policy toolkit, the development of implementation guides and model use cases, the deployment of AI pilot projects in areas of interest to African countries, and the establishment of policy guidelines to tackle gender equality issues in AI.[1197] In February 2021, Egypt hosted the first meeting of the African AI Working Group, which led to the issuance of the "Common Africa Position Paper on the Priority Areas of Africa towards AI", followed by the second meeting,

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[1193] François Candelon, HInd El Bedraoui, Hamid Maher, *Developing an Artificial Intelligence Strategy for Africa* (Feb. 9, 2021) https://oecd-development-matters.org/2021/02/09/developing-an-artificial-intelligence-for-africa-strategy/

[1194] Ministry of Communications and Information Technology, *Egypt Hosts Second Meeting of African AI Working Group*, (Dec 14, 2022) https://mcit.gov.eg/en/Media_Center/Latest_News/News/66696

[1195] Ministry of Communications and Information Technology, *Egypt Chairs AU Working Group on AI*, (Feb. 25, 2021), https://mcit.gov.eg/en/Media_Center/Latest_News/News/58203

[1196] UNESCO, *UNESCO launches Artificial Intelligence Needs Assessment Survey in Africa* (Mar. 4, 2021), https://en.unesco.org/news/unesco-launches-artificial-intelligence-needs-assessment-survey-africa

[1197] UNESCO, *Artificial intelligence needs assessment survey in Africa* (2021), https://unesdoc.unesco.org/ark:/48223/pf0000375410

which was also hosted by Egypt in December 2022.[1198] Overall, the meetings of African Working Group on AI aim to craft an African AI strategy in line with African Agenda 2063.[1199]

Egypt also chairs the Arab League's AI Working Group.[1200] In December 2021, the group held their third meeting, in which they discussed the draft of the unified Arab strategy for AI agreed upon by the Working Group.[1201]

Public Participation

The Ministry for Communications and Information Technology has launched in mid 2021 an AI Platform[1202] which allows the public to easily access the National Strategy, in addition to AI news, details about AI events, projects, and capacity-building programs, and information about AI partnerships with governments, international organizations, private sector companies, and academia. The AI Platform also includes a page where researchers can submit academic articles.

Regarding the drafting of the National AI Strategy, a stakeholder consultative process took place with academics, independent experts, and private sector companies. Nevertheless, neither the National Council for AI nor the Ministry for Communications and Information Technology has sought public feedback on any AI policy proposals.

Data Protection

The Egyptian Constitution protects citizens' rights to privacy under Article 57.[1203]

Egypt passed Law No. 151 on the Personal Data Protection Law (PDPL) in July 2020.[1204]However, the Minister of Communications and Information Technology has not issued any Executive Regulation of the

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[1198] Ministry of Communication and Information Technology*, Egypt Hosts Second Meeting of African AI Working Group* (Dec. 14,2022)
https://mcit.gov.eg/en/Media_Center/Latest_News/News/66696
[1199] Ibid.
[1200] Ministry of Communications and Information Technology, *Egypt Elected Chair of Arab AI Working Group*, (Feb. 16, 2021),
https://mcit.gov.eg/en/Media_Center/Latest_News/News/57187
[1201] Ministry of Communications and Information Technology, *Egypt Chairs Arab AI Working Group Third Session*, (Dec. 2 2021)
https://mcit.gov.eg/en/Media_Center/Latest_News/News/64829
[1202] Ministry of Communications and Information Technology, *Egypt Artificial Intelligence Platform*, https://ai.gov.eg
[1203] Constitute Project, *The Egyptian Constitution*,
https://www.constituteproject.org/constitution/Egypt_2014.pdf
[1204] https://www.trade.gov/market-intelligence/egypt-data-protection

PDPLyet despite the Law requiring so within six months after the entry into force of the Law.[1205] The PDPL was drafted following the example of the European General Data Protection Regulation (GDPR).[1206] Article 2 of the PDPL provides for data subject rights such as the right to erasure, the right to be informed, the right to access, and the right to rectification and to object.[1207] The PDPL also enshrines principles applicable to the collection, storage and processing of personal data. These principles are (1) Data minimization; (2) Accuracy and security; (3) Lawfulness, and (4) Storage limitation. The PDPL foresees financial sanctions in the event of violations regarding the protection of personal data.

The PDPL provides for the creation of a data protection authority, namely, the Data Protection Center (DPC). The DPC is meant to be be an independent authority which operates under the Ministry of Communications and Information Technology.[1208] The DPC will set and apply decisions, regulations, and measures in relation to data protection and foresee an adequate mechanism for law enforcement. The DPC is not yet operational.[1209]

As of yet, Egypt is not a member of the Global Privacy Assembly (GPA) and has not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[1210] the 2020 GPA Resolution on AI Accountability,[1211] or the 2022 GPA Resolution on Facial Recognition Technology.[1212]

[1205] Mohamed Hashish and Farida Rezk, Soliman, Hashish & Partners, *Egypt - Data Protection Overview*, One Trust Data Guidance, https://www.dataguidance.com/notes/egypt-data-protection-overview

[1206] https://whitelabelconsultancy.com/2020/11/the-new-personal-data-protection-law-in-egypt-a-gdpr-comparison/

[1207] https://www.dataguidance.com/notes/egypt-data-protection-overview

[1208] DLA Piper Data Protection, *Data Protection Laws of the World- EGYPT* (Dec. 20, 2021), https://www.dlapiperdataprotection.com/index.html?t=authority&c=EG

[1209] Mohamed Hashish and Farida Rezk, Soliman, Hashish & Partners, *Egypt - Data Protection Overview*, One Trust Data Guidance, https://www.dataguidance.com/notes/egypt-data-protection-overview

[1210] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1211] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[1212] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-

At a conference on the challenges that the right to privacy faces amid the rapid development of artificial intelligence organized in July 2022 by Egypt's Supreme Standing Committee for Human Rights, in collaboration with the Arab Organization for Human Rights (AOHR), the Minister of Social Solidarity, Nevine El-Qabbaj stated that "artificial intelligence has breached all limits, even our mental privacy." [1213]

Algorithmic transparency

The PDPL does not refer to algorithmic transparency. However, the principles of "transparency and explainability" are enshrined in the Egyptian Charter for Responsible AI, in addition to the right of the user to know "when he or she is interacting with an AI system and not a human being."

The Charter provides that "[a]ny end-user using an AI system has the fundamental right to know when he or she is interacting with an AI system and not a human being, for example in the case of automated call centers." The Charter also emphasizes that: "Developers of AI systems should always strive to provide transparent and explainable AI solutions. The degree of explainability required will vary according to the application domain and project requirements, but project sponsors must be clear on the potential tradeoff between the accuracy/quality and explainability of any given model. When in doubt, developers should opt for simpler models with higher degrees of explainability, without compromising the minimum desired quality and accuracy."[1214]

Biometric Recognition

Egypt is increasingly adopting biometric technologies for security and surveillance. A deal was struck between the Arab Organization for Industrialization and Idemia, a leading biometric company, for the latter to produce biometric devices, including facial recognition systems, in Egypt.[1215] The Egyptian government agreed with Idemia in early 2020 to build a digital ID system for Egypt Post "backed by fingerprint biometrics

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Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf
[1213] https://english.ahram.org.eg/News/471889.aspx
[1214] Egypt AI Platform, *Egyptian Charter for Responsible AI*, https://aicm.ai.gov.eg//en/Resources/EgyptianCharterForResponsibleAIEnglish-Feb2023v01.0.pdf
[1215] Ayang MacDonald, *Idemia renews Mauritania contract, signs deal with AOI for biometric device production in Egypt,* Biometric Update.COM (Nov. 9, 2020) https://www.biometricupdate.com/202011/idemia-renews-mauritania-contract-signs-deal-with-aoi-for-biometric-device-production-in-egypt

and citizen IDs".[1216] In 2021, Fingo, another organization specializing in biometrics, announced it had partnered with Egypt to develop a vein-based recognition system for the country's national ID program.[1217]

On the sidelines of the recent COP27 hosted in Sharm El-Sheikh, the Egyptian government signed an MoU with the US-based company, Honeywell International Inc, to "run a pilot model in Sharm El-Sheikh by transforming the new building of the South Sinai Governorate General Assembly and Sharm El-Shaikh Hospital into sustainable smart buildings relying on modern technologies, especially artificial intelligence and data analytics."[1218] This agreement came as the second deal after Egypt contracted Honeywell in 2019 to provide city-wide public safety, security and surveillance system for the new administrative capital, which, according to a press release by the company, will "integrate advanced Internet of Things (IoT) software and (...) also connect video feeds from more than 6,000 IP cameras over a futureproof wireless network, and run sophisticated video analytics to monitor crowds and traffic congestion, detect incidents of theft, observe suspicious people or objects, and trigger automated alarms in emergency situations."[1219]

These deals were concluded in a legal vacuum despite the fact that biometric systems could adversely impact several human rights, including the right to freedom of expression, the right to assembly, and the right to privacy.[1220]

[1216] Chris Burt, *Idemia to build biometrics-backed digital identity service in Egypt, supply TSA trials, joins Kantara,* Biometric Update.COM (Mar. 12, 2020), https://www.biometricupdate.com/202003/idemia-to-build-biometrics-backed-digital-identity-service-in-egypt-supply-tsa-trials-joins-kantara

[1217] Fingo, *Egypt to unlock futuristic ID verification with finger-vein recognition tech*, (Feb. 18, 2021), https://www.fingo.to/media/egypt-to-unlock-futuristic-id-verification-with-finger-vein-recognition-tech/

[1218] North Africa Post, *Egypt: US Honeywell company to transform government institutions into smart buildings*, https://northafricapost.com/62581-egypt-us-honeywell-company-to-transform-government-institutions-into-smart-buildings.html

[1219] ZAWYA, *Honeywell to deploy world-class public safety and security infrastructure for Egypt's new smart city*, https://www.zawya.com/en/press-release/honeywell-to-deploy-world-class-public-safety-and-security-infrastructure-for-egypts-new-smart-city-f8th3lyy

[1220] Institute of Development Studies, University of Sussex, *Surveillance Law in Africa: a review of six countries, Egypt country report*, https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/16893/Egypt%20Country%20Report.pdf?sequence=5&isAllowed=y

EdTech

In May 2022, Human Rights Watch published a global investigative report on the education technology (EdTech) endorsed by 49 governments, including Egypt, for children's education during the pandemic. Based on technical and policy analysis of 163 EdTech products, Human Rights Watch found that governments' endorsements of the majority of these online learning platforms put at risk or directly violated children's rights.

This is the case for example of the EdTech product "Edmodo" used in Egypt, which according to Human Rights Watch, has the capability to collect Android Advertising IDs which enable advertisers to track children, over time and across different apps installed on their device, for advertising purposes. Edmodo also allows for shadow profiling by getting access to contacts' details and photos, if saved on the phone. According to Human Rights Watch, in line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop, refine, and enforce modern child data protection laws and standards, and ensure that children who want to learn are not compelled to give up their other rights in order to do so.[1221]

AI Credit Scoring

Egypt introduced AI Credit Scoring in the Egypt National AI Strategy.[1222] With AI Credit Scoring in finance and banking, Egypt aims to providing score cards to the finance sector and enabling access to financing, and thus empowering un-bankable individuals and small businesses to contribute greatly to the economy.

Lethal Autonomous Weapons

While Egypt has signed the Convention on Conventional Weapons (CCW), it has not yet ratified the Convention.[1223] However, Egypt has been

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[1221] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[1222] Ibid., paragraph 7.6.

[1223] United Nations Office of Disarmament Affairs, *Status of the Treaty, Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects,* https://treaties.unoda.org/t/ccwc

actively participating in CCW meetings on killer robots since 2014.[1224]Bassem Yehia Hassan Kassem Hassan, a representative of Egypt, speaking on behalf of the Arab Group, stated that the presence of weapons of mass destruction and their modernization are a grave threat to international security and development, and that international community must develop norms and rules to encourage responsible behavior and increase cooperation to reach concrete progress in dealing with threats posed by lethal autonomous weapons and the use of artificial intelligence in armaments.[1225]

On numerous occasions, Egypt has warned that these weapon systems may have "possible ramifications on the value of human lives [and] the calculation of the cost of war"[1226], and thus, there must be "specific prohibitions on acquisition, research and development, testing, deployment, transfer, and use [of these systems]".[1227] Egypt has called for a moratorium on lethal autonomous weapons systems until a ban is achieved, supporting "a legally binding instrument against the development and manufacture of such weapon systems (…) as well as the regulation of existing systems that fall within [the CCW] mandate."[1228]

Human Rights

Egypt has endorsed the Universal Declaration of Human Rights. However, Freedom House gave Egypt, in regard to political rights and civil liberties, a freedom score of 18/100 for 2022, considering it as "not free".[1229]

[1224] Brian Stauffer, Human Rights Watch, _Stopping Killer Robots Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control_ (Aug. 10, 2020), https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and#_ftn95

[1225] United Nations, _First Committee Weighs Potential Risks of New Technologies as Members Exchange Views on How to Control Lethal Autonomous Weapons, Cyberattacks_ (Oct. 26, 2018), https://press.un.org/en/2018/gadis3611.doc.htm

[1226] Government of Egypt, _Statement to the UN Human Rights Council_, May 30, 2013, http://stopkillerrobots.org/wp-content/uploads/2013/05/HRC_Egypt_10_30May2013.pdf

[1227] Brian Stauffer, Human Rights Watch, _Stopping Killer Robots Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control_ (Aug. 10, 2020), https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and#_ftn95

[1228] Automated Decision Research, _State Position on Autonomous Weapons Systems: Egypt_, https://automatedresearch.org/news/state_position/egypt/

[1229] Freedom House, _Freedom in the World 2022 - Egypt,_ https://freedomhouse.org/country/egypt/freedom-world/2022

Freedom House also considers Egypt as "not free", scoring 27/100, with regard to internet freedom.[1230]

In March 2021, 31 UN member states penned a joint declaration, supported by numerous NGOs, strongly condemning human rights abuses in Egypt. The declaration highlighted constraints on citizens' freedom of expression, as well as their ability to voice political opposition and to peacefully assemble.[1231]

Egypt is criticized by international human rights organizations and civil society for state surveillance on citizens' communications and censorship on content online.[1232]   Enactment of Law No. 175/2018 on Combating Information Technology Crimes (Anti-Cyber Crime Law) aimed to ensure online safety, security and fraud, however, it is evaluated as a regulation which can be used for surveillance due to vague definitions and language.[1233] Moreover, there is also criticism on Egypt's collaboration procedures with private software and technology solution companies for the lack of transparency and accountability in projects such as Idemia and Thales.[1234]

In late 2021, Egypt launched the National Human Rights Strategy.[1235] On this occasion, President Abdel-Fattah El-Sisi declared 2022

[1230] Freedom House, *Freedom in the World 2022 - Egypt,* https://freedomhouse.org/countries/freedom-net/scores

[1231] Human Rights Watch, *Condemnation of Egypt's Abuses at UN Rights Body: Overdue Action is a Step Forward* (Mar. 12, 2021), https://www.hrw.org/news/2021/03/12/condemnation-egypts-abuses-un-rights-body#.

[1232] Wafa Ben Hassine, *Egyptian Parliement approves Cybercrime Law legalizing blocking of websites and full surveillance of Egyptians* (June 20, 2018) https://www.accessnow.org/egyptian-parliament-approves-cybercrime-law-legalizing-blocking-of-websites-and-full-surveillance-of-egyptians/

[1233] Killian Balz, Hussam Mujally, *Egypt: The New Egyptian Anti-Cybercrime Law Regulates Legal Responsibility For Web Pages And Their Content* (2018) https://www.mondaq.com/security/820028/the-new-egyptian-anti-cybercrime-law-regulates-legal-responsibility-for-web-pages-and-their-content; Jillian C. York, *Egypt's Draconian New Cybercrime Bill Will Only Increase Censorship* (Jul 12, 2018) https://www.eff.org/deeplinks/2018/07/draconian-new-cybercrime-bills-vietnam-and-egypt-will-only-increase-censorship

[1234] Marceau Sivieude (ed.), *Egypt: a repression made in France* International Federation for Human Rights (FIDH), Cairo Institute for Human Rights Studies (CIHRS), Human Rights League (LDH), Armaments Observatory (OBSARM) (June 2, 2018), https://www.fidh.org/en/issues/litigation/egypt-a-repression-made-in-france

[1235] Supreme Standing Committee for Human Rights, *National Human Rights Strategy (2021-2026)*, https://sschr.gov.eg/media/gapb5bq4/national-human-rights-strategy.pdf

as the year of civil society.[1236] The Human Rights Strategy is based on three axes: a) Constitutional Guarantees for Enhancing Human Rights Respect and Protection, b) Egypt's International and Regional Human Rights Obligations, and 3) Sustainable Development Strategy: Egypt Vision 2030. While the Strategy tackled all human rights, particularly political rights, it did not address the positive/adverse impact of technology on these rights or the human rights implications of artificial intelligence. The Strategy referred only to the use of technology to enhance human rights under the "Right to Litigation and Strengthening Guarantees for a Fair Trial." The National Human Rights Strategy emphasizes that one of the target results of the Egyptian State is the expansion of "the automated litigation system (...) in courts and their support entities to enhance speedy justice."[1237] Accordingly, the State adopted various measures "most notably the automation of many judicial services, including automated litigation process in misdemeanor courts and launching remote litigation in civil and economic courts."[1238]

In February 2023, Egypt released the Egyptian Charter on Responsible AI. The Charter builds on the OECD AI Principles and UNESCO Recommendation on the Ethics of AI. The Charter recognizes the significant risks AI might pose, such as bias, data drift, lack of transparency, lack of legal responsibility, and lack of fairness and equality. Therefore, it introduces guidelines and best practices for assessing AI systems trustworthiness with the aim to protect human rights and ensure the responsible, transparent, and fair use of the technology.[1239]

For instance, the Charter, as a reflection of the human-centeredness principle, stresses that "[t]he primary goal of using AI in Government is the well-being of citizens, including combating poverty, hunger, inequality, illiteracy, and corruption; achieving prosperity and inclusion." As for fairness, the Charter sets out a number of rules, including that "AI systems, especially data-driven models, must be monitored regularly while in production to ensure no data drift occurs. In those cases, the quality of the data must be reviewed and if needed, the underlying models need to be changed to accommodate changes in data." With regard to accountability,

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[1236] Egypt's State Information Service, *Sisi declares 2022 as year of civil society*, https://www.sis.gov.eg/Story/161945/Sisi-declares-2022-as-year-of-civil-society?lang=en-us

[1237] Ibid, p. 27.

[1238] *National Human Rights Strategy*, p. 25.

[1239] Egypt AI Platform, *Egyptian Charter for Responsible AI*, https://aicm.ai.gov.eg//en/Resources/EgyptianCharterForResponsibleAIEnglish-Feb2023v01.0.pdf

the Charter provides that the "[u]ltimate responsibility and accountability for the behavior and outcomes of an AI system must always lie with natural or legal persons. AI systems should not be given legal personality themselves." The Charter also stresses that "[f]inal Human Determination is always in place [which] means that ultimately, humans are in charge of making decisions, and are able to modify, stop, or retire the AI system if deemed necessary."[1240]

OECD / G20 AI Principles

Although Egypt is not an OECD member and has not endorsed the OECD AI Principles, it has taken actions to implement them. As reported by the OECD in their 2021 white paper "State of implementation of the OECD principles," Egypt has set up a governing body (the National Council for AI) to oversee the implementation of its AI strategy.[1241] This is a concrete first step toward fulfilling the OECD recommendation of ensuring "a policy environment that will open the way to deployment of trustworthy AI systems."

Egypt has also taken steps toward fulfilling three of the four other OECD recommendations. The creation of both the AI Platform and the new Egyptian Center of Excellence,[1242] a government group that will work with private or academic partners to deliver AI projects on behalf of beneficiaries, help to "foster accessible AI ecosystems with digital infrastructure and technologies and mechanisms to share data and knowledge." Empowering "people with the skills for AI and support workers for a fair transition" will be accomplished through enrollments in the newly created "Faculties of AI" at eight public and private Egyptian universities.[1243] Egypt's cooperation "across borders and sectors to progress on responsible stewardship of trustworthy AI" is evidenced by its participation in and leadership of international AI committees.

The final OECD recommendation is that governments "facilitate public and private investment in research & development to spur innovation in trustworthy AI." The Egyptian government's future plans set a public

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[1240] Ibid.

[1241] Organisation for Economic Co-operation and Development (OECD), *State of implementation of the OECD AI Principles: Insights from national AI policies*, OECD Digital Economy Papers, No. 311, (June 18, 2021), p. 10, https://doi.org/10.1787/1cd40c44-en,

[1242] Egypt AI Platform, *Egyptian AI Center of Excellence (AIEG)*, https://ai.gov.eg/strategy/center-of-excellence.

[1243] Sally Radwan, Samar Sobeih, *Egypt's AI strategy is more about development than AI,* OECD.ai Policy Observatory (May 26, 2021), https://oecd.ai/en/wonk/egypt-ai-strategy

goal of 7.7% of Egyptian Gross Domestic Product deriving from AI & robotics by 2030.[1244]

The recently adopted Charter on Responsible AI purports to demonstrate how the country will interpret and implement the OECD AI Principles of "human-centeredness", "transparency and Explainability", "fairness", "accountability", "security and safety".[1245]

Although Egypt is not a member of the Global Partnership on AI (GPAI), a multi-stakeholder initiative that aims to foster international cooperation on AI research and applied activities and is "built around a shared commitment to the OECD [AI Principles],"[1246] the Egyptian Ministry of Communications and Information Technology participated in GPAI Mid-Year Rendez-Vous 2021 and Second GPAI Summit on 11-12 November 2021.[1247]

In May 2022, Egypt also took part in the 1st session of the OECD Working Party on Artificial Intelligence Governance, which focused on National AI Policies.[1248] This was followed by the Ministry hosting an OECD delegation in late 2022 to discuss the state of AI development in Egypt.[1249]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Egypt endorsed the UNESCO Recommendation on AI Ethics[1250] and took an active part in its drafting.[1251] Egypt embedded most of the principles adopted in the UNESCO Recommendations on AI Ethics in its Charter for Responsible AI, albeit no concrete implementation has taken place so far. The Charter draws upon the guidelines developed by UNESCO and other

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[1244] Rebellion Research, *Egypt AI: Egypt's Artificial Intelligence Future* (Mar. 14, 2021), https://www.rebellionresearch.com/egypts-artificial-intelligence-future.

[1245] Egypt AI Platform, *Egyptian Charter for Responsible AI*, https://aicm.ai.gov.eg//en/Resources/EgyptianCharterForResponsibleAIEnglish-Feb2023v01.0.pdf

[1246] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/.

[1247] Ministry of Communications and Information Technology, *Egypt Partakes in Second GPAI Summit* (Nov. 10, 2021) https://mcit.gov.eg/en/Media_Center/Latest_News/News/64759

[1248] Egypt AI Platform, https://ai.gov.eg/events/events-list/event-details/11

[1249] Egypt AI Platform, https://ai.gov.eg/events/events-list/event-details/9

[1250] United Nations, *193 countries adopt first-ever global agreement on the Ethics of Artificial Intelligence, UN News* (Nov 25, 2021). https://news.un.org/en/story/2021/11/1106612

[1251] Egypt AI Platform, *Partnerships*, https://ai.gov.eg/Partnerships

organizations by translating these recommendations into steps "to help ensure the responsible development, deployment, management, and use of AI systems in the country". It is worth mentioning that although the Charter recognizes the principle of "human-centered AI", it did not acknowledge that "Respect, protection and promotion of human rights and fundamental freedoms" lie at the heart of Ethical AI.

Evaluation

Egypt has been a leading voice in the African and Arab world to foster the regulation of AI. It has been chairing African and Arab working groups on the topic and actively participated in the drafting of the UNESCO Recommendation on the Ethics of AI. Egypt has also made progress toward implementing the OECD AI Principles. A key milestone is the recent adoption of the Egyptian Charter on Responsible AI. Egypt has a promising data protection framework and it remains to be seen which actions the newly created data protection authority will take to protect data subject rights in the age of AI. Concerns exist with regard to the lack of open and public participation in AI policy initiatives. The use of biometric technologies for security and surveillance is of particular concern in a country deemed "not free" according to Freedom House.

Estonia

National AI Strategy

The Estonian Cabinet adopted its first National AI Strategy in July 2019.[1252] The Government Chief Information Officer Office, based in the Ministry of Economic Affairs and Communications, was tasked with steering the AI Strategy. The first National AI Strategy built on a May 2019 report of Estonia's AI Taskforce.[1253] The actions detailed in the first AI Strategy were designed to advance the adoption of AI solutions in both the private and public sectors, to increase AI capacities and research and development, and to develop the legal environment to facilitate AI. The first AI Strategy committed to the establishment of a steering group, comprised of government representatives and other stakeholders, in order to monitor the implementation of the AI Strategy. In addition, the e-Estonia Council was tasked with considering the strategy's implementation annually. The first AI Strategy was conceived as a short-term strategy, intended to apply up until 2021. By adopting a short-term strategy, Estonia intends to gain insight and develop a long-term strategy in response to the experience gained. Estonia aims to monitor the development of the short-term action plan and keep the European Union informed of developments.

In spite of Estonia's national digital adviser initially proposing the adoption of a law granting legal personality to AI, Estonia's AI Taskforce concluded that no substantial legal changes were currently required to address the issues presented by AI.[1254] The Taskforce Report maintained, "Both now and in the foreseeable future, kratts are and will be human tools, meaning that they perform tasks determined by humans and express the intention of humans directly or indirectly." Accordingly, the AI Taskforce Report clarified that the "actions" of AI are attributable to the relevant state body or private party that uses the AI solution.[1255] Minor changes recommended include the removal of obsolete laws and providing additional clarity in order to facilitate the use of AI. Estonia's Chief

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[1252] *Estonia's National AI Strategy 2019-2021* (July 2019) https://f98cc689-5814-47ec-86b3-db505a7c3978.filesusr.com/ugd/7df26f_27a618cb80a648c38be427194affa2f3.pdf

[1253] *Report of Estonia's AI Taskforce* (May 2019) https://f98cc689-5814-47ec-86b3-db505a7c3978.filesusr.com/ugd/7df26f_486454c9f32340b28206e140350159cf.pdf

[1254] Report of Estonia's AI Taskforce (May 2019) https://f98cc689-5814-47ec-86b3-db505a7c3978.filesusr.com/ugd/7df26f_486454c9f32340b28206e140350159cf.pdf; See Astghik Grigoryan, *Estonia: Government Issues Artificial Intelligence Report* (July 31, 2019), https://www.loc.gov/law/foreign-news/article/estonia-government-issues-artificial-intelligence-report/

[1255] Estonia's National AI Strategy (July 2019) https://f98cc689-5814-47ec-86b3-db505a7c3978.filesusr.com/ugd/7df26f_27a618cb80a648c38be427194affa2f3.pdf

Information Officer stated that Estonia wants to "build on the EU framework, not to start creating and arguing" for a separate Estonian framework.[1256] A draft EU AI Act is currently being negotiated.

Neither the first AI Strategy nor the AI Taskforce Report provided significant detail on questions related to the ethics of artificial intelligence. Reference was, however, made to guidance provided by the European Commission for the development and implementation of trustworthy artificial intelligence.[1257] The Taskforce Report acknowledged that "trustworthy artificial intelligence must be guided by the principles of human rights, positive rights, and values, thus ensuring the ethics dimension and objective."[1258] The Report recognized the relevance of the EU Charter of Fundamental Rights and referred to the following rights as central according to the Commission guidance on AI: the right to human dignity, the right to freedom, respect of the principles of democracy and the state, based on the rule of law, right to equality, non-discrimination, and acknowledgement of minorities, and civil rights.

To ensure that the development and use of AI is ethical, the Taskforce Report emphasized the importance of ensuring that AI is human-centric; that rights, ethics principles, and values are fundamental; and that AI may bring unintended consequences. The first AI Strategy referenced the EU guidelines that identify the importance of the following values: human agency, technical reliability, privacy and data management, transparency, non-discrimination, social and environmental well-being, and responsibility.

The Estonian Cabinet adopted its new Artificial Intelligence Strategy (2022-2023) as a continuation of Estonia's first national AI

[1256] Astghik Grigoryan, *Estonia: Government Issues Artificial Intelligence Report*, US Library of Congress (July 31, 2019) https://www.loc.gov/law/foreign-news/article/estonia-government-issues-artificial-intelligence-report/; referencing Ronald Liive, *Estonian State IT Manager Siim Sikkut: If There Were 1% in the State Budget for Science, We Could Talk More About Kratind*, DigiGeenius (May 5, 2019). In 2018, Estonia signed up to a European Union Declaration of Cooperation on Artificial Intelligence https://ec.europa.eu/digital-single-market/en/news/eu-member-states-sign-cooperate-artificial-intelligence

[1257] Report of Estonia's AI Taskforce (May 2019) https://f98cc689-5814-47ec-86b3-db505a7c3978.filesusr.com/ugd/7df26f_486454c9f32340b28206e140350159cf.pdf; European Commission, *Ethics Guidelines for Trustworthy AI* (Apr. 8, 2019) https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai

[1258] Report of Estonia's AI Taskforce (May 2019), https://f98cc689-5814-47ec-86b3-db505a7c3978.filesusr.com/ugd/7df26f_486454c9f32340b28206e140350159cf.pdf

strategy (2019–2021).[1259] The new AI strategy is also being carried out in line with the objectives laid out by the European Commission in its Coordinated Plan on Artificial Intelligence.[1260]

The new AI strategy acknowledges that the development of the initial strategy took place at a time when technological advances with regard to AI were slower and the public sector was just starting to implement its first projects. By contrast, the use of AI has now become an essential and unavoidable part of the development of the digital state. "Today more than 80 AI projects have been performed, more than 40 organisations have been involved, and a number of AI groups have been developed, allowing easier implementation by both the private and public sector."

The new strategy is more concerned with human-centered and trustworthy AI and lists specific actions in this regard. The strategy mentions that the aim "is to regulate the development and use of AI in a human-centered and trustworthy way, i.e. in a reliable, ethical, and lawful way that respects fundamental rights, as well as to establish a set of rules on civil liability related to AI."[1261] As an example of the specific actions to implement human-centric and trustworthy AI, the new strategy has requested the Ministry of Economic Affairs and Communications (MEAC), the Ministry of Justice (MJ) and the Data Protection Inspectorate (DPI) to develop "requirements and measures to support the development and use of human-centered and reliable AI solutions". In order to "maintain and increase society's confidence in the use of the AI and to mitigate the potential risks associated with their use, policies should be developed and appropriate requirements and measures implemented.[1262] For instance, as one concrete relevant measure for transparent data processing, a requirement to implement a data monitor could be introduced." There are specific activities planned to implement these goals, one of them consist for example in the "development of a fundamental rights impact assessment

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[1259] Government of the Republic of Estonia, *Estonia's national artificial intelligence strategy for the period 2019-2021* (July 2019), https://f98cc689-5814-47ec-86b3-db505a7c3978.filesusr.com/ugd/7df26f_27a618cb80a648c38be427194affa2f3.pdf

[1260] European Commission, *Shaping Europe's digital future* (2023), https://digital-strategy.ec.europa.eu/en/policies/european-approach-artificial-intelligence

[1261] Ministry of Economic Affairs and Communications, *Estonia's National Artificial Intelligence Strategy or Kratt Strategy for 2022–2023* (2021) p. 38, https://en.kratid.ee/_files/ugd/980182_e319a94450384ca198f027ba84fcbace.pdf

[1262] Ministry of Economic Affairs and Communications, *Estonia's National Artificial Intelligence Strategy or Kratt Strategy for 2022–2023* (2021) p. 13, https://en.kratid.ee/_files/ugd/980182_e319a94450384ca198f027ba84fcbace.pdf

model and guidance materials for assessing and mitigating risks to fundamental rights in the development and use of the AI."[1263]

With regard to legislative changes, a package of 'AI laws' to enable the deployment of AI, including a possible initiative regarding the regulation of the effects of algorithmic systems, (the so-called 'AI VTK'), was drafted with the aim of identifying possible changes to existing law to accommodate the introduction of AI.[1264] As the European Commission presented, in April 2021, an initiative for an EU-wide regulation on AI, "the legislative activity has been redirected towards solving specific problems that need to be regulated and can be regulated independently of EU action". The new strategy states that "the Artificial Intelligence Act takes into account Estonia's views to the maximum extent possible. There is a need to avoid proactive over-regulation in a rapidly evolving area. The regulation to be put in place should also aim at enabling the introduction of AI and should not create unnecessary obstacles." To reach this objective, the strategy recommends for the Ministry of Economic Affairs and Communications and the Ministry of Justice to "participate in the negotiation of the Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) and advocate in favour of Estonia's views."[1265]

By putting more accent on AI ethics and a human-centric approach to AI in its new strategy, and by participating in policy and legislative initiatives in the field of AI at the EU and international levels, Estonia seeks "to promote Estonia's interests and to ensure the feasibility of AI and its compliance with the principles of a human-centered digital state and the requirements of trustworthy AI."[1266]

Nordic-Baltic Cooperation on AI

As for the international landscape, the Estonian minister responsible for digital development signed the 2018 declaration on "AI in the Nordic-

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[1263] Ministry of Economic Affairs and Communications, *Estonia's National Artificial Intelligence Strategy or Kratt Strategy for 2022–2023* (2021), https://en.kratid.ee/_files/ugd/980182_e319a94450384ca198f027ba84fcbace.pdf

[1264] Eelnõude infosüsteem, *Algoritmiliste süsteemide mõjude reguleerimise väljatöötamise kavatsus („krati VTK")* (2020), https://eelnoud.valitsus.ee/main/mount/docList/93ebe63d-de8c-4662-9908-3232aa7f987c#DOLqEbLQ

[1265] Ministry of Economic Affairs and Communications, *Estonia's National Artificial Intelligence Strategy or Kratt Strategy for 2022–2023* (2021), p. 39, https://en.kratid.ee/_files/ugd/980182_e319a94450384ca198f027ba84fcbace.pdf

[1266] *Estonia's National Artificial Intelligence Strategy or Kratt Strategy for 2022–2023*, p.40.

Baltic region" establishing a collaborative framework on "developing ethical and transparent guidelines, standards, principles and values to guide when and how AI applications should be used" and "on the objective that infrastructure, hardware, software and data, all of which are central to the use of AI, are based on standards, enabling interoperability, privacy, security, trust, good usability, and portability."[1267]

The ministerial declaration Digital North 2.0[1268] builds on the common priorities of the Nordic-Baltic countries, and follows the previous ministerial declaration, Digital North 2017-2020. "In order to promote work with digitalisation, co-ordinate efforts, and follow up on the goals of the declaration, a council of ministers for digitalisation (MR-DIGITAL) was established in 2017. The aim is to promote development in three areas: (1) Increase mobility and integration in the Nordic and Baltic region by building a common area for cross-border digital services; (2) Promote green economic growth and development in the Nordic-Baltic region through data-driven innovation and a fair data economy for efficient sharing and re-use of data; and (3) Promote Nordic-Baltic leadership in the EU/EEA and globally in a sustainable and inclusive digital transformation of our societies."[1269]

In November 2021, the Nordic and Baltic ministers for digitalization released another joint statement announcing a focus on digital inclusion, striving to implement measures to make digital services more accessible to all Estonian inhabitants and ensuring that those who do not possess the necessary level of skills get the opportunity to acquire them. [1270]

In September 2022, the Nordic and Baltic ministers for digitalization issued a common statement on the importance of cooperation on digital security in the Nordic-Baltic region following the COVID-19 pandemic and the war in Ukraine. In their common statement, the ministers stressed that this "rapid transformation has challenged everyone to adapt to new, digital ways of doing business, learning and accessing public authorities." The

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[1267] Nordic and Baltic Ministers of Digitalization, *AI in the Nordic-Baltic region* (May 14, 2018), https://www.norden.org/en/declaration/ai-nordic-baltic-region

[1268] Nordic and Baltic Ministers of Digitalization, *Ministerial Declaration Digital North 2.0* (Sept. 29, 2020), https://www.norden.org/en/declaration/ministerial-declaration-digital-north-20

[1269] Nordic Co-operation, *Nordic-Baltic co-operation on digitalisation*, https://www.norden.org/en/information/nordic-baltic-co-operation-digitalisation

[1270] Nordic and Baltic Ministers of Digitalization, *Common statement on the importance of promoting digital inclusion as a central part of the digital transformation in the Nordic-Baltic region* (Nov. 26, 2021), https://www.norden.org/en/declaration/common-statement-importance-promoting-digital-inclusion-central-part-digital

ministers declared that they "have committed to ensuring that our region maintains its position as a leader in digitalisation, and that everyone in the region benefit from digitalisation regardless of age, wealth, education or level of digital skills. One important factor that helps ensure a strong level of digitalisation in the region is the trust citizens put in digital services from the public sector – be it at regional, national or local level. In order to keep up this high level of trust, we need to continue our efforts to make our digital public services human centric and accessible. (…) Robust and secure digital services, safeguarding users' privacy and ensuring that personal data are stored and processed in a trustworthy way, are crucial to the citizens' sustained trust in digital services."[1271]

Public participation

In 2018, the Estonian government brought together an expert group to participate in a cross-sectional coordination project on AI.[1272] The three tasks of this expert group were to develop the so-called Estonian artificial intelligence action plan; prepare draft legislation to ensure clarity in the Estonian judicial area and organize the necessary supervision; notify the public about the implementation of kratts and introduce possible options.

Participants in the group included representatives from state authorities, the private sector, universities, and sectoral experts. In order to prepare the report, interviews were conducted, including with company representatives involved in the development of AI and ICT representatives from universities. Working groups (in the fields of law, education, and the public sector) were also created.[1273] The e-estonia website states, "In these debates, technical and legal expertise goes a long way. But the discussion must also involve the public. Honest, meaningful debate requires that dreamy utopias be balanced with open discussions about AI's controversial attributes and threats. Only this can create user-friendly legislation that's equipped to reduce legal nightmares in the long-term."[1274]

[1271] Nordic and Baltic Ministers of Digitalization, *Common statement on the importance of cooperation on digital security in the Nordic-Baltic region* (Sept. 6, 2022), https://www.norden.org/en/declaration/common-statement-importance-cooperation-digital-security-nordic-baltic-region

[1272] *Report of Estonia's AI Taskforce* 42 (May 2019), https://f98cc689-5814-47ec-86b3-db505a7c3978.filesusr.com/ugd/7df26f_486454c9f32340b28206e140350159cf.pdf

[1273] *Report of Estonia's AI Taskforce May* (2019) (See Annex for details on membership_, 42 https://f98cc689-5814-47ec-86b3-db505a7c3978.filesusr.com/ugd/7df26f_486454c9f32340b28206e140350159cf.pdf

[1274] e-estonia, *AI and the Kratt Momentum* (Oct. 2018) https://e-estonia.com/ai-and-the-kratt-momentum/

Documents relating to the AI Strategy are accessible on the internet. The website Kratid provides links to the National Artificial Intelligence Strategy, the Report of Estonia's AI Taskforce, the 'Vision Paper on #KrattAI: The Next Stage of Digital Public Services in #eEstonia', and the '#KrattAI Roadmap for 2020'.[1275]

In 2022, the Kratid website was updated with the new AI Strategy (2022-2023) and the new #KrattAI Roadmap for 2021-2022. A separate website exists in Estonia, the Electronic Information System (EIS),[1276] which enables anyone to follow ongoing legislatives procedures, search for documents in the information system, take part in public consultations and comment on a document under inter-agency coordination. The EIS is a working environment for inter-agency coordination, submission of documents to the government and the parliament, and public consultation. In addition to national documents, draft European Union legislation and other documents related to the European Union decision-making process are available in the EIS.

In December 2021, the Ministry of Economic Affairs and Communications published the new national AI strategy (2022-2023) for public consultation for two weeks. Although the deadline was tight, the public had the opportunity to supplement and comment on the Action Plan.

Data Protection

Since Estonia is an EU Member State, the General Data Protection Regulation (GDPR)[1277] is directly applicable in Estonia and to Estonians. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[1278] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018. The Personal Data Protection Act (PDPA)[1279] and the new Personal Data Protection Implementation Act

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[1275] Kratid, *Search for Estonia*, https://www.kratid.ee/in-english

[1276] Eelnõude infosüsteem, *The Electronic Information System* (in Estonian), https://eelnoud.valitsus.ee/main#Aok2CJTq

[1277] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

[1278] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1279] Personal Data Protection Act https://www.riigiteataja.ee/en/eli/523012019001/consolide

(Implementation Act) were adopted in December 2018 and February 2019 respectively to align Estonian law with the GDPR. They entered into force in January 2019 and March 2019 respectively.

Regarding the activities of law enforcement authorities, the PDPA also transposed the EU Data Protection Law Enforcement Directive (LED).[1280] "The directive protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[1281] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[1282] The LED also requires for Member States, including Estonia, to enable data subjects to exercise their rights via national data protection authorities.[1283]

"Consistency and a high level of protection among Member States is key in order to ensure effective judicial cooperation in criminal matters and police cooperation. The LED provides for the European Data Protection Board (EDPB) [of which the Estonian data protection authority is a member] to issue guidelines, recommendations and best practices (on its own initiative or at the Commission's request) in order to ensure that the Member States apply the LED consistently."[1284] The EDPB has produced guidelines on the use of facial recognition technologies in the area of law enforcement.[1285] "EDPB Chair Andrea Jelinek said: "While modern

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[1280] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[1281] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1282] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[1283] Article 17 of the LED.

[1284] Communication from the Commission to the European Parliament and the Council, *First report on application and functioning of the Data Protection Law Enforcement Directive (EU) 2016/680 ('LED')*, COM/2022/364 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0364&qid=1658824345764#footnote136

[1285] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[1286]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Estonia is also a member of the Council of Europe and ratified the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[1287]

The Data Protection Inspectorate[1288] is the national supervisory authority in Estonia. Despite being a member of the Global Privacy Assembly (GPA) since 2006, the Inspectorate has not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence;[1289] the 2020 GPA Resolution on AI Accountability;[1290] or the 2022 GPA Resolution on Facial Recognition Technology.[1291]

[1286] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

[1287] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[1288] Data Protection Directorate, https://www.aki.ee/en

[1289] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1290] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[1291] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-

Algorithmic Transparency

Estonia is subject to the GDPR and Convention 108+. Estonians have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[1292]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[1293] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[1294]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be

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Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[1292] See Recital 63 and Article 22 of the GDPR. Article 9 c) of the Convention 108+ as well as Recital 77, *Explanatory Report, Convention 108+*, p. 24, https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1

[1293] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1294] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[1295]

The Ministry of Justice announced that it would draft legislation addressing high-risk algorithmic systems that will require the creators of AI (both public and private) to provide transparency regarding when AI communicates with an individual, processes an individual's data, or makes a decision on the basis of the individual's data.[1296] A representative of the Ministry said that non-transparency of decisions is the biggest threat. When it comes to AI, based on current knowledge, even the person who wrote the algorithm's code is unable to explain the reasons behind a decision, as the system is self-learning and self-evolving. "An assessment or a decision made by an algorithm may have a significant impact on fundamental rights no matter whether we are speaking of a self-learning or a human-defined algorithm. It is a duty of a country based on the rule of law to have foresight and prevent serious interferences with fundamental rights by means of setting out a relevant legislative framework," said Kai Härmand at the time Deputy Secretary General on Legal Policy at the Ministry of Justice.

Digitization of Public Services

In 2018, the Estonian Undersecretary for Communications and State Information Systems emphasized the importance of facilitating AI in Estonia for investment and innovation, as well as for public administration.[1297] In light of its commitment to e-government, Estonia emphasizes the use of AI for government services.[1298] Indeed, _KrattAI_ refers to "the vision of how digital public services should work in the age of artificial intelligence;" or more specifically, KrattAI is described as an

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[1295] _Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems_ (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1296] Estonian Ministry, _Use of AI must Respect Fundamental Rights_ (Aug. 19, 2020) www.baltic-course.com/eng/Technology/?doc=158411&output=d

[1297] Riigikantselei, _Estonia will have an Artificial Intelligence Strategy_ (Mar. 27, 2018) https://www.riigikantselei.ee/et/uudised/eesti-saab-tehisintellekti-strateegia; Tanel Kerikmäe and Evelin Pärn-Lee, _Legal Dilemmas of Estonian Artificial Intelligence Strategy: In Between of E-Society and Global Race,_ AI & Society (2020).

[1298] It has been noted that the "Estonian public sector is highly digitalized, whereas the private sector is not." Tanel Kerikmäe and Evelin Pärn-Lee, _Legal Dilemmas of Estonian Artificial Intelligence Strategy: In Between of E-Society and Global Race_, AI & Society (2020).

"interoperable network of AI applications, which enable citizens to use public services with virtual assistants through voice-based interaction."[1299]

The Estonian government makes use of automated decision-making in many different contexts.[1300] For example, the Tax and Customs Board uses automated decision-making to facilitate tax refunds following the submission of an online income tax return. Other examples include the use of tachographs on lorries and automated speed checks on motorways to issue cautionary fines and the use of automated decision-making for the determination of a child's school on the basis of their registered residence.[1301] There has been international coverage of Estonia's ambitious plans for AI in the public sector – including on the issue of "Robot Judges."[1302] The Estonian court system embraces digitalization and started an e-File system in 2005. The use of AI to tackle an immense backlog of cases has been considered, including the adoption of projects that can make "autonomous decisions within more common court procedures/tasks that would otherwise occupy judges and lawyers alike for hours."[1303]

The government has also launched the AI Govstack Testbed program (Bürokratt) and invites anyone with relevant experience to participate in an experimental framework to build the next generation AI-led country. Bürokratt exemplifies the Estonian vision of how digital public services should work in the age of AI. Bürokratt is an interoperable network of public and private sector AI solutions, which from the user's point of view, act as a single channel for public services and information.[1304] According to the International Research Centre on Artificial Intelligence (IRCAI), operating under UNESCO, "all the aspects regarding KrattAI are fully transparent – starting from business strategy and roadmap to the

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[1299] KRATT Artificial Intelligence Programme of #Estonia, #KrattAI: roadmap for 2020 https://f98cc689-5814-47ec-86b3-db505a7c3978.filesusr.com/ugd/7df26f_19625e00a7b84900b99e952b1ce7d21a.pdf; Republic of Estonia, Ministry of Economic Affairs and Communications, *Report of Estonia's AI Taskforce* (May 2019), https://f98cc689-5814-47ec-86b3-db505a7c3978.filesusr.com/ugd/7df26f_486454c9f32340b28206e140350159cf.pdf. The report of Estonia's AI Taskforce defined 'kratt' as being "a practical application that uses artificial intelligence and that fulfils a specific function."

[1300] See also *#KrattAI Roadmap for 2020* https://www.kratid.ee/roadmap

[1301] Council of State of the Netherlands and ACA-Europe, *An Exploration of Technology and the Law* (May 14, 2018), http://www.aca-europe.eu/colloquia/2018/Estonia.pdf

[1302] Eric Niller, *Can AI Be a Fair Judge in Court? Estonia Thinks So,* Wired (Mar. 23, 2019) https://www.wired.com/story/can-ai-be-fair-judge-court-estonia-thinks-so/

[1303] Anett Numa, *Artificial Intelligence as the New Reality of E-justice,* e-estonia (Apr. 2020) https://e-estonia.com/artificial-intelligence-as-the-new-reality-of-e-justice/https://e-estonia.com/artificial-intelligence-as-the-new-reality-of-e-justice/

[1304] e-Estonia, *AI Govstack Testbed*, https://e-estonia.com/ai-govstack-testbed_eng/

technology side: architecture, technical solutions – which is Open Source and available to all users".[1305] Open source AI components are also used for the Kratid website.[1306]

The Estonian government provides a data tracker tool accessible through the state portal (eesti.ee) that enables anyone with an eID to keep track of which institutions have accessed their data and for what purposes.[1307] As pointed out on the e-estonia website, transparency is "fundamental to foster trust in the effective functioning of the whole system." Information is also provided regarding automated processing although Algorithm Watch states that it "is not always clear if data is used as a part of an automatic process or viewed by an official."[1308] In spite of the ambition of this tool, the Estonian Human Rights Center argue that the data provided is variable depending on the service and at times not detailed enough. To assist transparency and understanding, the Estonian Human Rights Center suggests that visual depictions of data use should be provided.[1309] Similarly, Algorithm Watch states that the current tool does not provide a "clear understanding of what profiling is done by the state, which data is collected, how it is used, and for what purpose."[1310]

Lethal Autonomous Weapons

In a 2019 meeting of the Group of Governmental Experts on Lethal Autonomous Weapons Systems, Estonia expressed the view that "humans must retain ultimate control and responsibility in relation to the use of force in armed conflict" and "humans must exercise such control over a weapon system as may be necessary to ensure that the weapon system operates consistently with international law."[1311]

[1305] International Research Centre on Artificial Intelligence, *IRCAI Global 2021 Top 100 List* (2021), https://ircai.org/top100/entry/krattai/https://ircai.org/top100/entry/krattai/

[1306] Kratid, *Kratijupid*, https://www.kratid.ee/kratijupid

[1307] Federico Plantera, *'Data Tracker - Tool that Builds Trust in Institutions'* (e-estonia, September 2019) https://e-estonia.com/data-tracker-build-citizen-trust/

[1308] Algorithm Watch, *Automating Society Report 2020* 75 (Oct. 2020), https://automatingsociety.algorithmwatch.org/wp-content/uploads/2020/10/Automating-Society-Report-2020.pdf

[1309] Kari Käsper and Liina Rajavee, *Inimõigused, Infoühiskond Ja Eesti: Esialgne Kaardistus*, Estonian Human Rights Centre (2019).

[1310] Algorithm Watch, *Automating Society Report 2020* 75 (Oct. 2020), https://automatingsociety.algorithmwatch.org/wp-content/uploads/2020/10/Automating-Society-Report-2020.pdf

[1311] Permanent Mission of Estonia to the UN and other International Organisations in Geneva, Group of Governmental Experts on Lethal Autonomous Weapons Systems –

Estonia was one of the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[1312]

In February 2023, Estonia participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Estonia endorsed a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[1313] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to

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First meeting, *Statement of Estonia* (March 25-29, 2019), https://unoda-documents-library.s3.amazonaws.com/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_(2019)/LAWS%2BGGE%2B2019%2BI%2B-%2BEstonia%2B-%2BAgenda%2Bitem%2B5%28c%29.pdf

[1312] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[1313] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

collaborate and exchange information on responsible AI in the military domain."[1314]

Human Rights

Estonia is a member of the European Union and the Council of Europe and is, accordingly, committed to the upholding of the Charter of Fundamental Rights and the European Convention on Human Rights. Estonia ratified the Universal Declaration on Human Rights and has acceded to international human rights treaties, such as the International Covenant on Civil and Political Rights. The Estonian Constitution also grants fundamental rights to citizens.

In Freedom House's 2022 Country Report, Estonia ranked highly (94/100) and the ranking has not changed since 2020.[1315] In Estonia, "democratic institutions are generally strong, and both political rights and civil liberties are widely respected". In previous reports, Freedom House noted, with regard to openness and transparency, that "Estonia is well-known for its transparency and well-developed e-governance services. Recently, however, several security flaws in these systems were revealed. While the government announced a plan to remedy the situation, additional resources to support the maintenance and further expansion of the e-governance program are needed." The 2022 report for its part does not mention such issues anymore.[1316]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to

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[1314] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[1315] Freedom House, *Freedom in the World 2021 – Estonia* (2021), https://freedomhouse.org/country/estonia/freedom-world/2021

[1316] Freedom House, *Freedom in the World 2022 – Estonia* (2022), https://freedomhouse.org/country/estonia/freedom-world/2022

amplifying positive effects and preventing or minimizing possible adverse effects."[1317]

In a 2018 report, the Commissioner for Human Rights of the Council of Europe urged the Estonian authorities to give careful consideration "to the ethical, legal and human rights implications of using robots and artificial intelligence in the care of older persons" given Estonia's strong focus on digitalization, new technologies, and AI.[1318]

OECD / G20 AI Principles

In May 2019, Estonia endorsed the OECD Principles on Artificial Intelligence, "agreeing to uphold international standards that aim to ensure AI systems are designed to be robust, safe, fair and trustworthy."[1319]

Estonia is not a member of the Global Partnership on AI, a multi-stakeholder initiative which aims to foster international cooperation on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[1320]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Estonia has endorsed the UNESCO Recommendations on AI, the first ever global agreement on the ethics of AI.[1321] It remains to be seen how this endorsement will translate in practice.

Evaluation

As a member of the European Union and the Council of Europe, Estonia is committed to the protection of human rights, ethics in AI, and algorithmic transparency. Estonia has also endorsed the OECD AI

[1317] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1318] Council of Europe, Commissioner for Human Rights, *Report of the Commissioner for Human Rights of the Council of Europe Dunja Mijatović Following her Visit to Estonia from 11 to 15 June 2018* (Sept. 28, 2018): 21,https://rm.coe.int/report-of-the-council-of-europe-commissioner-for-human-rights-dunja-mi/16808d77f4

[1319] OECD, *Forty-two countries adopt new OECD Principles on Artificial Intelligence* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[1320] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/

[1321] United Nations Educational, Scientific and Cultural Organization (UNESCO), *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (Nov. 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence.

Principles and the UNESCO Recommendation on the Ethics of AI. At regional level, Estonia has signed the Declaration of Collaboration on AI in the Nordic-Baltic Region which includes a commitment "to develop ethical and transparent guidelines, standards, norms and principles that can be employed as a steering mechanism to guide AI programmes."[1322]

By contrast, Estonia's first AI Strategy did not consider the issues of ethics and human rights in significant depth. Nevertheless, Estonia opted for a short-term strategy in order to be able to adapt it to a rapidly evolving AI landscape. Based on Estonia's experience as a leading country in the world regarding the use of data[1323] and e-governance, its second national AI strategy, although still warry of "proactive over-regulation in a rapidly evolving area" and of "creating unnecessary obstacles", includes the bases for an ethical framework and provides for specific actions in this regard.

Reflective of this approach is Estonia's Prime Minister Kaja Kallas' recent statement: "We are already using artificial intelligence in our operations and services, but we see there is a huge potential to make our services more convenient for the people." "But at the same time, we are a rule-of-law country and every individual's privacy is a very important matter for us."[1324] This is a similar position that Estonia defends with regard to the draft EU AI Act. "We welcome the proposed AI directive because we have long supported the idea that European-wide harmonized regulation ensures a common market, and minimizing risks increases acceptance of AI technologies," said Mr. Velsberg, the Estonian Government Chief Data Officer. "Our concern is that the definition of AI in this draft is too wide and the scope of its application occasionally too sweeping. And I can assure you that in this assessment, we rely on the long experience Estonia has with AI in the public sector." The question that these statements raises is whether Estonia considers AI ethics as a means for AI deployment or the respect of ethical principles as a condition for AI deployment.

[1322] Government of Sweden, Nordic Council of Ministers, *AI in the Nordic-Baltic region* (May 14, 2018), https://www.regeringen.se/49a602/globalassets/regeringen/dokument/naringsdepartementet/20180514_nmr_deklaration-slutlig-webb.pdf

[1323] E-estonia, *Estonia is leading the world in the use of data* (May 23, 2022), https://e-estonia.com/estonia-is-leading-the-world-in-the-use-of-data/

[1324] Invest in Estonia, *Prime Minister Kaja Kallas: Artificial intelligence is the next big thing for Estonia* (2022), https://investinestonia.com/prime-minister-kaja-kallas-artificial-intelligence-is-the-next-big-thing-for-estonia/

Finland

National AI Strategy

In 2017, Finland was among the first countries to develop a national AI strategy, establishing proposed target dates and allocating public funds in furtherance of the country's AI-related business objectives. The vision put forth by the national strategy is that "[i]n another five years time, artificial intelligence will be an active part of every Finn's daily life. Finland will make use of artificial intelligence boldly in all areas of society – from health care to the manufacturing industry – ethically and openly. Finland will be a safe and democratic society that produces the world's best services in the age of artificial intelligence. Finland will be a good place for citizens to live and a rewarding place for companies to develop and grow. Artificial intelligence will reform work as well as create wellbeing through growth and productivity."

At that time, Finland explained that it implemented this AI strategy to: (1) enhance business competitiveness using AI, (2) ensure top-level expertise and attract top experts, (3) provide the world's best public services, and (4) make Finland a front runner in the age of AI.[1325]

To that end, in May 2017, Finland's Minister of Economic Affairs launched "Finland's AI Programme,"[1326] an operational program tasked with "turning Finland into a leading country in the application of artificial intelligence." The Programme focused on three areas: an efficient public sector, a well-functioning society, and a competitive business and industry sector.[1327]

The Minister of Economic Affairs appointed a steering committee, which included representatives from the public, private, and research sectors, and charged the steering committee with publishing a report containing its recommendations regarding the operationalization of Finland's AI Programme. Within the steering committee, the Minister of Economic Affairs established four subgroups "assigned to participate in the compilation and implementation of the Finnish AI Programme" and focused on four (4) key areas: (1) expertise and innovations; (2) data and platform economy; (3) transformation of work and society; and (4) ethics.

[1325] OECD, *State of Implementation of the OECD AI Principles* 18 (June 2021), https://read.oecd.org/10.1787/1cd40c44-en?format=pdf.

[1326] *AI Finland Background* (2018), https://www.tekoalyaika.fi/en/background/

[1327] Ministry of Economic Affairs and Employment, *Leading the way into the age of artificial Intelligence: Final Report of Finland's Artificial Intelligence Programme* (2019), https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161688/41_19_Leading%20the%20way%20into%20the%20age%20of%20artificial%20intelligence.pdf.

The steering committee published three reports. The first one, entitled "Finland's age of artificial intelligence: Turning Finland into a leading country in the application of artificial intelligence"[1328] was released in 2017. In this report, the streering committee examined "the significance of artificial intelligence to Finland's well-being, revised the programme objectives, and made some recommendations for actions, which, if implemented, should facilitate Finland's objective to "adopt and benefit from AI."[1329]

In June 2018, the steering committee subgroup on transformation of work and society, published a second report entitled, "Work in the age of artificial intelligence: Four perspectives on the economy, employment, skills and ethics."[1330] The subgroup separately examined (1) the impact of artificial intelligence on growth and employment; (2) labour market dynamics in a technological revolution; (3) learning and skills in a transition; and (4) good application of artificial intelligence technology and ethics. The report also offered three policy recommendations: (1) Increase the competitiveness of business and industry; (2) Provide high-quality public services and improve the efficiency of the public sector; (3) Ensure a well-functioning society and wellbeing for its citizens.[1331]

In this report, the subgroup defines the relationship between "good application of technology" and ethics in the following way. "In its most unassuming form, good application of technology means being aware of the potential negative impacts or problems associated with it and applying the technology accordingly. The most ambitious definition also includes a conscious attempt to use technology to promote certain societal goals regarded as valuable. We start out discussion with the more ambitious goal." Accordingly, the subgroup identifies three key "values of a good artificial intelligence society": transparency, responsibility, and extensive societal benefits.

[1328] Ministry of Economic Affairs and Employment, *Finland's Age of Artificial Intelligence: Turning Finland into a leading country in the application of artificial intelligence, Objective and recommendations for measures* (2017), http://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/160391/TEMrap_47_2017_verkkojulkaisu.pdf

[1329] https://futureoflife.org/ai-policy-finland/

[1330] Ministry of Economic Affairs and Employment, *Work in the age of artificial intelligence: Four perspectives on the economy, employment, skills and ethics* (2018), https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/160980/TEMjul_21_2018_Work_in_the_age.pdf

[1331] The report cautioned that "[t]he conclusions of the report d[id] not necessarily represent the group's joint views," but "d[id] represent a majority opinion."

According to the subgroup, "transparency refers to openness regarding 1) what data are collected and for what purpose (to underpin decision-making based on artificial intelligence), and 2) what the aim of the algorithms supporting and making decisions is." Associated with transparency, is "traceability" or "the possibility of tracing the purity and integrity of the data underpinning decision-making based on artificial intelligence and the grounds for making decisions." The subgroup explains that "[t]his is vital for a number of reasons, which include potential errors or structural biases contained in data or the decision-making process, legal protection of those the decisions concern, clarification of responsibility issues, principles of transparency contained in democratic decision-making, safety-related perspectives (for example, the possibility of humans to intervene in the operation of autonomous learning technology), and building up technology developers' expertise regarding the logic of the operation and learning of intelligent machines." "A machine is not a normative learner in the same sense as a human. It is not directed by an idea of learning that is morally correct, or the importance of absolute truth over statistical truth. As deep neural networks and in-depth learning develop, it will be more difficult to get at the grounds of individual decisions made by a machine due to the non-linearities generated in the system. In this case, rather than the grounds of decisions made by individual algorithms, the requirement of traceability focuses on comprehensive understanding of the operation of the entire neural network system. The problem of traceability can partly be responded to by clarifying the rules of when a machine makes the actual decision and when only a prediction that supports final decision-making by a human. The more security critical the activity and the more difficult to trace the decision, the higher the threshold should be for a machine making independently a decision on the basis of which action is initiated. However, the point of departure in all cases is that humans assume ultimate legal and moral responsibility for the decisions."[1332]

In December 2019, the steering committee published its third and final report, "Leading the way into the age of artificial intelligence."[1333] The

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[1332] Ministry of Economic Affairs and Employment, *Work in the age of artificial intelligence: Four perspectives on the economy, employment, skills and ethics* (2018), p. 50,
https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/160980/TEMjul_21_2018_Work_in_the_age.pdf

[1333] The Ministry of Economic Affairs and Employment of Finland, *Leading the way into the age of artificial intelligence Final report of Finland's Artificial Intelligence Programme* (2019),
http://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161688/41_19_Leading%20the%20way%20into%20the%20age%20of%20artificial%20intelligence.pdf

report detailed the steering committee's policy recommendations for Finland's AI Programme. The report also set forth the contours of Finland's "vision" of a country that, by 2025, "is competitive and able to attract talent and has the most relevantly educated population consisting of well-informed and independent citizens" in "the age of artificial intelligence."[1334]

In November 2020, Finland launched the "Artificial Intelligence 4.0 Programme." "The purpose of the programme is to formulate the objectives and measures to promote digitalisation in Finland. Particular attention should be paid to SMEs, increases in digital investment and European cooperation. The programme will contribute to the recovery of companies and the economy from the coronavirus pandemic. According to the European Commission, digitalisation is one of the key means to generate new economic growth."[1335]

According to the European Commission's Digital Economy and Society Index (DESI), Finland is the most digital country in the EU in 2022.[1336] In October 2022, while informing the Finnish Parliament of the evolution of the negotiations surrounding the EU AI Act, the government stressed the importance of supporting innovation and achieving proportionality.[1337]

Nordic-Baltic and Nordic Cooperation on AI

As for the regional landscape, the Finnish Minister in charge of digitalisation signed the declaration on "AI in the Nordic-Baltic region" establishing a collaborative framework on "developing ethical and transparent guidelines, standards, principles and values to guide when and how AI applications should be used" and "on the objective that infrastructure, hardware, software and data, all of which are central to the use of AI, are based on standards, enabling interoperability, privacy, security, trust, good usability, and portability."[1338]

[1334] https://futureoflife.org/ai-policy-finland/

[1335] Ministry of Economic Affairs and Employment, *Artificial Intelligence 4.0 programme to speed up digitalisation of business* (Nov. 17, 2020), https://tem.fi/en/-/artificial-intelligence-4.0-programme-to-speed-up-digitalisation-of-business

[1336] European Council, *The Digital Economy and Society Index (DESI)* (2022), https://digital-strategy.ec.europa.eu/en/policies/desi

[1337] Ministry of Economic Affairs and Employment of Finland, *Amendments to EU's proposed AI regulation – Parliament to be informed by a follow-up Union communication* (Oct. 27, 2022), https://tem.fi/en/-/amendments-to-eu-s-proposed-ai-regulation-parliament-to-be-informed-by-a-follow-up-union-communication

[1338] Nordic and Baltic Ministers of Digitalization, *AI in the Nordic-Baltic region* (May 14, 2018), https://www.norden.org/en/declaration/ai-nordic-baltic-region

The ministerial declaration Digital North 2.0[1339] builds on the common priorities of the Nordic-Baltic countries, and follows the previous ministerial declaration, Digital North 2017-2020. "In order to promote work with digitalisation, co-ordinate efforts, and follow up on the goals of the declaration, a council of ministers for digitalisation (MR-DIGITAL) was established in 2017. The aim is to promote development in three areas: (1) Increase mobility and integration in the Nordic and Baltic region by building a common area for cross-border digital services; (2) Promote green economic growth and development in the Nordic-Baltic region through data-driven innovation and a fair data economy for efficient sharing and re-use of data; and (3) Promote Nordic-Baltic leadership in the EU/EEA and globally in a sustainable and inclusive digital transformation of our societies."[1340]

In November 2021, the Nordic and Baltic ministers for digitalization released another joint statement announcing a focus on digital inclusion, striving to implement measures to make digital services more accessible to all Finnish inhabitants and ensuring that those who do not possess the necessary level of skills get the opportunity to acquire them. [1341]

In September 2022, the Nordic and Baltic ministers of digitalization issued a common statement on the importance of cooperation on digital security in the Nordic-Baltic region following the COVID-19 pandemic and the war in Ukraine. In their common statement, the ministers stressed that this "rapid transformation has challenged everyone to adapt to new, digital ways of doing business, learning and accessing public authorities." The ministers declared that they "have committed to ensuring that our region maintains its position as a leader in digitalisation, and that everyone in the region benefit from digitalisation regardless of age, wealth, education or level of digital skills. One important factor that helps ensure a strong level of digitalisation in the region is the trust citizens put in digital services from the public sector – be it at regional, national or local level. In order to keep up this high level of trust, we need to continue our efforts to make our digital public services human centric and accessible. (…) Robust and secure digital services, safeguarding users' privacy and ensuring that personal data are

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[1339] Nordic and Baltic Ministers of Digitalization, *Ministerial Declaration Digital North 2.0* (Sept. 29, 2020), https://www.norden.org/en/declaration/ministerial-declaration-digital-north-20

[1340] Nordic Co-operation, *Nordic-Baltic co-operation on digitalisation*, https://www.norden.org/en/information/nordic-baltic-co-operation-digitalisation

[1341] Nordic and Baltic Ministers of Digitalization, *Common statement on the importance of promoting digital inclusion as a central part of the digital transformation in the Nordic-Baltic region* (Nov. 26, 2021), https://www.norden.org/en/declaration/common-statement-importance-promoting-digital-inclusion-central-part-digital

stored and processed in a trustworthy way, are crucial to the citizens' sustained trust in digital services."[1342]

As part of its action plan for Vision 2030 (2021-2024), the Nordic Council of Ministers also identified innovation, digital integration, the safe use of artificial intelligence, data development and open data, education and digitalization as key objectives.[1343] The Nordic Council of Ministers also emphasizes the involvement of civil society in efforts relating to our vision for 2030 thanks to "a Nordic civil society network and public consultations."[1344]

Public Participation

Finland's longstanding and broad commitment to an open democracy has traditionally been given expression by extensive consultation with established groups.[1345] The Finnish Constitution also states that "democracy entails the right of the individual to participate in and influence the development of society and his or her living conditions." Provisions on consultation and participation are given further weight in various laws and guidelines including the Act on the Openness of Government Activities. Bearing in mind this approach, the steering committee formed to make recommendations to implement Finland's Artificial Intelligence Programme included members of the public.

Data protection

Since Finland is an EU Member State, the GDPR[1346] is directly applicable in Finland and to Finns. The aim of the GDPR is to "strengthen

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[1342] Nordic and Baltic Ministers of Digitalization, *Common statement on the importance of cooperation on digital security in the Nordic-Baltic region* (Sept. 6, 2022), https://www.norden.org/en/declaration/common-statement-importance-cooperation-digital-security-nordic-baltic-region

[1343] Nordic Council of Ministers, *The Nordic Region – toward being the most sustainable and integrated region in the world, Action Plan for 2021-2024* (Dec. 14, 2020), https://www.norden.org/en/publication/nordic-region-towards-being-most-sustainable-and-integrated-region-world

[1344] Nordic Council of Ministers, *Guidelines for involving civil society in work relating to Our Vision 2030* (Feb. 12, 2021), https://www.norden.org/en/publication/guidelines-involving-civil-society-work-relating-our-vision-2030

[1345] OECD, *Better Regulation in Europe: Finland, Transparency through consultation and communication* 71 (2010), https://www.oecd.org/gov/regulatory-policy/45054502.pdf

[1346] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[1347] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018. The Finnish Data Protection Act,[1348] which entered into force on January 1, 2019, supplements the GDPR. Another key sectoral legislation in the field is the Act on the Protection of Privacy in Working Life.[1349]

Regarding the activities of law enforcement authorities, Finland transposed the EU Data Protection Law Enforcement Directive (LED)[1350] through the Act on the Processing of Personal Data in Criminal Cases and in connection with Maintaining National Security which entered into force on January 1, 2019 along with the Data Protection Act. The LED "protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[1351] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[1352] The LED also requires for Member States, including Finns, to enable data subjects to exercise their rights via national data protection authorities.[1353]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of

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[1347] European Commission, *Data protection in the EU*,
https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en
[1348] Ministry of Justice of Finland, Data Protection Act (1050/2018),
https://www.finlex.fi/en/laki/kaannokset/2018/en20181050.pdf
[1349] DLA Piper, *Data Protection Laws Of The World – Finland* (Jan. 4, 2023),
https://www.dlapiperdataprotection.com/index.html?t=law&c=FI#:~:text=The%20protect
ion%20of%20employees'%20privacy,concerning%20privacy%20in%20working%20life.
[1350] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*,
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504
[1351] European Commission, *Data protection in the EU*,
https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en
[1352] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504
[1353] Article 17 of the LED.

the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Finland is also a member of the Council of Europe and ratified the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[1354]

The Data Protection Ombudsman is the national supervisory authority which supervises compliance with data protection legislation and safeguards the rights and freedoms of individuals with regard to the processing of their personal data.[1355] The Ombudsman has made numerous important decisions,[1356] including with administrative fines amounting to several hundred thousand Euros.[1357]

Despite being a member of the Global Privacy Assembly (GPA) since 2002, the Data Protection Ombudsman has not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence;[1358] the 2020 GPA Resolution on AI Accountability;[1359] or the 2022 GPA Resolution on Facial Recognition Technology.[1360]

[1354] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[1355] Office of the Data Protection Ombudsman of Finland, https://tietosuoja.fi/en/home

[1356] European Data Protection Board, *News on Finland*, https://edpb.europa.eu/news/news_en?news_type=All&field_edpb_member_states_target_id=76

[1357] e.g. European Data Protection Board, *Administrative Fine Imposed On Psychotherapy Centre Vastaamo For Data Protection Violations* (Dec 7, 2021), https://edpb.europa.eu/news/national-news/2022/administrative-fine-imposed-psychotherapy-centre-vastaamo-data-protection_en

European Data Protection Board, *Finnish SA: Administrative fine on Viking Line for unlawful processing of employees' health data* (Dec 9, 2022), https://edpb.europa.eu/news/national-news/2023/finnish-sa-administrative-fine-viking-line-unlawful-processing-employees_en

[1358] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1359] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[1360] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-

Algorithmic Transparency

Finland is subject to the GDPR and Convention 108+. Finns have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[1361]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[1362] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[1363]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be

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Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[1361] See Recital 63 and Article 22 of the GDPR. Article 9 c) of the Convention 108+ as well as Recital 77, *Explanatory Report, Convention 108+*, p. 24, https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1

[1362] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1363] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[1364]

In December 2018, Juha Sipilä's Government (2015–2019) submitted to Parliament the Government report on information policy and artificial intelligence. The report combines two aspects while paying special attention to ethical issues and 200 people from different sectors of society were involved in working on the Report.[1365]

In the report, information policy is studied not only from the viewpoint of information management, but also from the perspective of the conditions for the use of information, value basis, ethical principles and financial impacts. Information policies discussed in the report relate to data access rights, data ownership, copyrights, security and personal data protection. The report constitutes the knowledge basis and a policy, upon which a roadmap with prioritized actions can be built in the future.[1366] The development and deployment of AI raises uncertainty about the application of the current legislation on these issues and increases the need for a reform of the legislative and regulatory framework.[1367]

Access to Data

The 2019 final report noted that "[d]ata has become the world's most valuable resource, but when the existing operating models are applied, it primarily benefits a few giant corporations that collect the data from their service users." With respect to the adoption of the GDPR by Finland (and other EU countries), the final report opined that although the law "strengthened the rights of individuals and harmonised the EU regulation related to processing of personal data" as currently formulated, "there is no joint concept or interoperable open ecosystem for the exchange of personal data based on consumer consent."

[1364] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1365] Finland, *Government report on information policy and artificial intelligence* (Dec. 5, 2018), https://vm.fi/documents/10623/7768305/VM_Tiepo_selonteko_070219_ENG_WEB.pdf/89b99a8e-01a3-91e3-6ada-38056451ad3f/VM_Tiepo_selonteko_070219_ENG_WEB.pdf.pdf/VM_Tiepo_selonteko_070219_ENG_WEB.pdf

[1366] Ministry of Finance, *Information policy report*, https://vm.fi/en/information-policy-report

[1367] European Commission, AI Watch, *Finland AI Strategy Report* (2020), https://knowledge4policy.ec.europa.eu/ai-watch/finland-ai-strategy-report_en#regulation

The final report observes that "Finland is in a position to become a global trendsetter and a forerunner within the EU in the creation of fair, consumer-oriented principles" and that consumer-oriented principles require "a visionary approach and a joint EU-level roadmap, as well as technical proof of functional exchange of data."

Digitization of Public Services

In 2020, Finland launched a "National Artificial Intelligence Programme – AuroraAI" due to be completed in 2023.[1368] The program promotes automation in administration and aims to connect public services and their platforms e.g. in the Finnish Immigration Service.[1369]

In September 2020, the city of Helsinki launched an AI registry in beta version to detail how city government uses algorithms to deliver services. "Each algorithm cited in the registry lists datasets used to train a model, a description of how an algorithm is used, how humans utilize the prediction, and how algorithms were assessed for potential bias or risks. The registry also provides citizens a way to give feedback on algorithms their local government uses and the name, city department, and contact information for the person responsible for the responsible deployment of a particular algorithm."[1370] The city of Helsinki describes it AI register as "a window into the artificial intelligence systems used by the City of Helsinki. Through the register, you can get acquainted with the quick overviews of the city's artificial intelligence systems or examine their more detailed information based on your own interests. You can also give feedback and thus participate in building human-centred AI in Helsinki."[1371]

In 2022, a new research project, "Civic Agency in AI" also started with the aim to help the public sector ensure that their AI tools are

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[1368] Ministry of Finance of Finland, *National Artificial Intelligence Programme AuroraAI*, https://bit.ly/3wvG8u8

[1369] Global Legal Insights, *AI, Machine Learning & Big Data Laws and Regulations 2022* – Finland (2022), https://www.globallegalinsights.com/practice-areas/ai-machine-learning-and-big-data-laws-and-regulations/finland

[1370] Khari Johnson, *Amsterdam and Helsinki launch algorithm registries to bring transparency to public deployments of AI* (Sept. 28, 2020), https://venturebeat.com/2020/09/28/amsterdam-and-helsinki-launch-algorithm-registries-to-bring-transparency-to-public-deployments-of-ai/. See also Meeri Haataja, Linda van de Fliert and Pasi Rautio, *Public AI Registers, Realising AI transparency and civic participation in government use of AI, A White Paper* (Sept. 2020), https://algoritmeregister.amsterdam.nl/wp-content/uploads/White-Paper.pdf

[1371] *City of Helsinki AI Register*, https://ai.hel.fi/en/get-to-know-ai-register/

transparent, accountable, and equitable. Its purpose is to develop best practices and recommendations regarding AI governance.[1372]

AI and Children

Finland and UNICEF have been collaborating to create internationally applicable policy guidance for the use and development of AI for children. The Ministry for Foreign Affairs supports the project, where practices are developed for the planning of safe and inclusive AI solutions that take the rights of the child into account.[1373]

Facial Recognition

According to news reports, Finland's National Bureau of Investigation has acknowledged using facial recognition technology in connection with certain law enforcement activities.[1374] After initially denying that it had used facial recognition technology in response to media questioning, the Finnish officials from the National Bureau of Investigation acknowledged that four members of its Child Exploitation Investigation Unit had conducted 120 searches of the Clearview AI system during the 2019 to 2020 time period.

The Deputy Data Protection Ombudsman issued a note to the National Bureau of Investigation regarding the controversial use of Clearview AI facial recognition technology. In September 2021, the Deputy Data Protection Ombudsman warned the National Bureau of Investigation that its police officers had used a facial recognition technology system without first verifying that it complied with data security or data protection laws.[1375]

[1372] Finish center for Artificial Intelligence (FCAI), *Participatory Research To Improve Artificial Intelligence Based Public Sector Services And Empower Citizens* (Feb 8, 2022), https://fcai.fi/news/2022/2/8/participatory-research-to-improve-artificial-intelligence-based-public-sector-services-and-empower-citizens

[1373] Ministry of Foreign Affairs, *Policy Guidance on AI for Children piloted in different parts of the world* (Oct. 19, 2021), https://um.fi/current-affairs/-/asset_publisher/gc654PySnjTX/content/lapsiin-liittyvan-tekoalyn-pelisaantoja-pilotoitu-eri-puolilla-maailmaa

[1374] Nord News, *The Data Protection Commissioner raped the Finnish police for a controversial facial identity application* (Sept. 29, 2021), https://nord.news/2021/09/29/the-data-protection-commissioner-raped-the-finnish-police-for-a-controversial-facial-identity-application/

[1375] European Data Protection Board, *Finnish SA: Police reprimanded for illegal processing of personal data with facial recognition software* (Sept. 20, 2021), https://edpb.europa.eu/news/national-news/2021/finnish-sa-police-reprimanded-illegal-processing-personal-data-facial_en

Lethal Autonomous Weapons

In a 2020 report, Human Rights Watch noted that at the 2014 UN General Assembly, Finnish officials stated that the issue of lethal autonomous weapons systems is "a complex issue." Finnish officials cautioned that the "development of weapons and means of warfare where humans are completely out of the loop would pose serious risks from the ethical and legal viewpoint," stressing that "humans should always bear the ultimate responsibility when dealing with questions of life and death." Finnish officials have not supported proposals to negotiate a new international treaty to ban or restrict killer robots. However, in June 2019, Finland's new government released a coalition platform that seeks to ban weapons systems based on artificial intelligence. [1376]

Finland was one of the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[1377]

Finland also submitted a working paper, together with Sweden, France, Germany, the Netherlands, Norway, and Spain, to the 2022 Chair of the Group of Governmental Experts on emerging technologies in the area of Lethal Autonomous Weapons Systems.[1378] This working paper presents a two-tier approach. Accordingly, States should commit to (1) outlaw fully autonomous lethal weapons systems operating completely outside human control and a responsible chain of command, and (2) regulate other lethal weapons systems featuring autonomy in order to ensure compliance with the rules and principles of international humanitarian law, by preserving

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[1376] Human Rights Reports, *Stopping Killer Robots: Country Positions on Banning Fully Autonomous Weapons and Maintaining Human Control* (Aug. 10, 2020), https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and#_ftn1

[1377] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[1378] *Documents from the 2022 CCW Group of Governmental Experts on lethal autonomous weapon systems*. Convention on Certain Conventional Weapons, https://reachingcriticalwill.org/disarmament-fora/ccw

human responsibility and accountability, ensuring appropriate human control and implementing risk mitigation measures.

In February 2023, Sweden participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Sweden endorsed a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[1379] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[1380]

Human Rights

As one of the signatories to the Universal Declaration of Human Rights and several international human rights treaties and conventions,[1381] Finland is committed to protecting human rights, civil liberties, and political rights. Under Finnish law, these rights are guaranteed and subject to the rule of law as interpreted by an independent judiciary.

Freedom House gives Finland a top score (100/100) for political rights and civil liberties, observing that "Finland's parliamentary system features free and fair elections and robust multiparty competition.

[1379] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

[1380] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[1381] These include the International Covenant on Economic, Social and Cultural Rights, International Covenant on Civil and Political Rights, European Convention on Human Rights and Protocol amending the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data (108+)

Corruption is not a significant problem, and freedoms of speech, religion, and association are respected. The judiciary is independent under the constitution and in practice."[1382]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[1383]

OECD AI Principles

Finland is a long-time member of the OECD and has adopted OECD AI Principles,[1384] committing "to uphold international standards that aim to ensure AI systems are designed to be robust, safe, fair and trustworthy."[1385] However, Finland is not a member of the Global Partnership on AI, a multi-stakeholder initiative which aims to foster international cooperation on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[1386]

[1382] Freedom House, *Freedom in the World 2022 – Finland,* https://freedomhouse.org/country/finland/freedom-world/2022

[1383] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1384] OECD, *Finland,* https://www.oecd.org/finland/

[1385] OECD, *Forty-two countries adopt new OECD Principles on Artificial Intelligence* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[1386] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/

UNESCO Recommendation on the Ethics of AI

Finland has endorsed the UNESCO Recommendations on AI, the first ever global agreement on the ethics of AI.[1387] It remains to be seen how this endorsement will translate in practice.

Evaluation

Finland is the most digital country in the EU in 2022. In its national AI strategy, one of the first in the world, Finland has adopted an approach based on its vision of "a good artificial intelligence society." Risks posed by AI do not occupy the center stage of its strategy but Finland has tried to develop best practices and hands-on solutions for ensuring trustworthy AI by design. Its capital, Helsinki, is the first city to have developed and adopted an AI register in order to foster trust in AI and ensure the best service to citizens. Finland benefits from a strong European and national data protection framework. The use of the Clearview facial recognition system by law enforcement authorities was controversial and was reprimanded by the Data Inspectorate. Finland has also worked closely with UNICEF to develop internationally applicable policy guidance for the use AI by children and has endorsed both the OECD AI Principles and the UNESCO Recommendation on the Ethics of AI. It remains to be seen which concrete steps Finland will adopt to turn its commitment to the UNESCO AI Ethics Recommendation into actions.

[1387] United Nations Educational, Scientific and Cultural Organization (UNESCO), *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (Nov. 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence.

France

National AI Strategy

France's national Strategy on Artificial Intelligence entitled "AI for Humanity" aims to make France a world leader in AI. "AI will raise a lot of issues in ethics, in politics, it will question our democracy and our collective preferences," stated French President Emmanuel Macron in 2018.[1388] "If you want to manage your own choice of society, your choice of civilization, you have to be able to be an acting part of this AI revolution."[1389]

France's AI strategy sets out four objectives:[1390] (1)Reinforcing the AI ecosystem to attract the very best talents, (2) Developing an open data policy, especially in sectors where France already has the potential for excellence, such as healthcare, (3) Creating a regulatory and financial framework favoring the emergence of "AI champions," and (4) Promoting AI regulation and ethics, to ensure to high standard and acceptability for citizens. This includes supporting human sciences research on ethics of use, making all algorithms used by the State public, including admission to higher education, and encouraging AI's openness to diversity.

The national AI strategy builds on the Villani[1391] report, "For a Meaningful Artificial Intelligence: Towards a French and European

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[1388] President of France, *France's new national strategy for artificial intelligence - Speech of Emmanuel Macron* (March 29, 2018), https://www.elysee.fr/emmanuel-macron/2018/03/29/frances-new-national-strategy-for-artificial-intelligence-speech-of-emmanuel-macron.en

[1389] Nicholas Thompson, *Emmanuel Macron Talks to WIRED About France's AI Strategy* (Mar. 31, 2018), https://www.wired.com/story/emmanuel-macron-talks-to-wired-about-frances-ai-strategy

[1390] Government of France, *Artificial Intelligence: "Making France a leader"* (Mar. 30, 2018), https://www.gouvernement.fr/en/artificial-intelligence-making-france-a-leader

[1391] Cedric Villani is a French mathematician, Fields Medal winner and Member of Parliament. Part 5 of his report focuses on ethical considerations of AI and notably includes proposals to open the "black box", implement ethics by design, and set up an AI Ethics Committee.

strategy,"[1392] as well as the work of "France Strategy"[1393] and of the French national data protection authority (CNIL).[1394]

The National Coordinator for AI, tasked with the implementation of the national AI strategy, works with all administrations, centers and research laboratories dedicated to AI.[1395]

National Pilot Committee for Digital Ethics

With regard to AI regulation and ethics (objective 4 of the National AI Strategy), in July 2019, the Prime Minister asked the French National Consultative Committee on Bioethics (CCNE) to launch a pilot initiative dedicated to Digital Ethics. The National Pilot Committee for Digital Ethics (NPCDE), created in December 2019, "shall submit initial contributions on the ethics of digital sciences, technologies, uses and innovations and determine relevant equilibria for the organization of public debate on digital ethics and artificial intelligence.'' It is also tasked with maintaining ethical oversight and to raise awareness, inform and assist individuals, companies, administrations, institutions, etc., in their decision-making process.[1396] The committee has been seized by the Prime Minister to give opinions on the ethical issues concerning three specific topics of digital applications using in particular machine learning: 1) Conversational agents (chatbots); 2) Autonomous cars; and 3) Medical diagnosis and health AI.

However, civil society groups such as Access Now have objected to government studies that simply propose ethical guidelines rather than hard law. Access Now explains, "[t]here is solid and creative thinking in the

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[1392] Cedric Villani, *For a Meaningful Artificial Intelligence: Toward a French and European Strategy* (Mar. 2018),
https://www.aiforhumanity.fr/pdfs/MissionVillani_Report_ENG-VF.pdf

[1393] France Stratégie, the strategy department attached to the French Prime Minister, released a synthesis *France intelligence artificielle* report in March 2017.
https://www.enseignementsup-recherche.gouv.fr/cid114739/rapport-strategie-france-i.a.-pour-le-developpement-des-technologies-d-intelligence-artificielle.html

[1394] The CNIL (National Commission on Computer Technology and Civil Liberties) organized a public debate and produced a report on "the ethical stakes of algorithms and artificial intelligence" in December 2017 which recommends six concrete actions.
https://www.cnil.fr/en/algorithms-and-artificial-intelligence-cnils-report-ethical-issues

[1395] Government of France, Prime Minister, *Nomination de M. Renaud VEDEL. comme Coordinateur national pour l'intelligence artificielle* (Mar. 9, 2020),
https://www.gouvernement.fr/sites/default/files/document/document/2020/03/communique_de_presse_de_m._edouard_philippe_premier_ministre_-_nomination_de_m._renaud_vedel_comme_coordinateur_national_pour_lintelligence_artificielle_-_09.03.2020.pdf

[1396] Claude Kirchner, *The French National Committee for Digital Ethics* (Feb. 24, 2020),
https://ai-regulation.com/the-french-national-committee-for-digital-ethics/

advisory paper that informed the strategy around the ethical and regulatory challenges posed by AI, but at the moment the proposed solutions largely involve the creation of groups to study them rather than the proposal of new or modified norms."[1397] "France's AI strategy generally cleaves to the 'ethics' framework and makes scant reference to hard legal constraints on AI development." Access Now notes that the "Villani report is considerably more detailed about the ethical and legal challenges posed by AI." While some civil society organizations oppose the need for the NPCDE, they continue to work towards their objectives and convened a conference with the European Research Consortium for Informatics and Mathematics (ERCIM) Ethics Working Group to discuss digital technology ethics and connected technologies in October 2022.[1398]

Public Participation

The Villani report, which has been a key source of inspiration for France's national strategy, relied on the work of multiple stakeholders but no the public at large. However the CNIL for its part did organize a public debate which led to its report on "the ethical stakes of algorithms and artificial intelligence" in December 2017. The CNIL 2018 report on the ethical issues raised by AI also followed extensive public outreach in 2017. More than 3,000 people took part in 45 debates and events, organized by 60 partners, including research centers, public institutions, trade unions, think tanks and companies.[1399]

According to BEUC, the European consumer association, more than 80% of those polled in France are familiar with Artificial Intelligence and over 50% respondents agreed that companies use AI to manipulate consumer decisions.[1400] BEUC also reported that there is little trust over authorities to exert effective control over organizations and companies

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[1397] AccessNow, *Mapping Regulatory Proposals for Artificial Intelligence in Europe* (Nov. 18, 2018), https://www.accessnow.org/cms/assets/uploads/2018/11/mapping_regulatory_proposals_for_AI_in_EU.pdf

[1398] ERCIM, *Forum on Digital Ethics in Research: Beyond Compliance*, ERCIM News (Jan. 11, 2023), https://ercim-news.ercim.eu/en132/jea/forum-on-digital-ethics-in-research-beyond-compliance

[1399] CNIL, *Algorithms and artificial intelligence: CNIL's report on the ethical issues,* CNIL (May 25, 2018), https://www.cnil.fr/en/algorithms-and-artificial-intelligence-cnils-report-ethical-issues

[1400] BEUC, *Artificial Intelligence, what consumers say: Findings and policy recommendations of a multi-country survey on AI,* (Sept. 7, 2020) https://www.beuc.eu/publications/beuc-x-2020-078_artificial_intelligence_what_consumers_say_report.pdf

using AI. More than 60% of respondents in France said users should be able to say "no" to automated decision-making.

Data Protection

The right to the protection of personal data falls within the scope of application of the right to respect for private life,[1401] which is constitutionally protected.[1402]

Since France is an EU Member State, the General Data Protection Regulation (GDPR)[1403] is directly applicable in France and to French people. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[1404] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018.

Regarding the activities of law enforcement authorities, the EU Data Protection Law Enforcement Directive (LED)[1405] "protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[1406] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[1407] The

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[1401] See Cassation, Civ. 1, (Nov. 5) 1996.

[1402] See Constitutional Council, decision n° 99-416 DC (July 23, 1999)

[1403] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

[1404] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1405] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[1406] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1407] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

LED also requires for Member States, including France, to enable data subjects to exercise their rights via national data protection authorities.[1408]

The 1978 French Data Protection Act was amended in 2018 in order to adapt it to both the GDPR and the LED.[1409]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

France is also a member of the Council of Europe and ratified the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[1410]

AI Oversight

The French data protection authority (CNIL) has published several papers on AI, including a 2018 report on the ethical issues raised by AI.[1411] This report set out two founding principles – fairness and vigilance, six recommendations, and six concerns. Following this report, a joint 2020 paper by the CNIL and the Defender of Rights detailed concerns around the transparency obligations of those responsible for AI systems.[1412]

The CNIL's work also contributed to the Declaration on Ethics and Data Protection in AI, which was later adopted by the Global Privacy Assembly in 2018.[1413] The CNIL is a member of the Global Privacy Assembly (GPA) since 2002. The CNIL did not endorse the 2020 GPA

[1408] Article 17 of the LED, ibid.

[1409] "Informatique et Libertés" Act, as modified by Bill n° 2018-493 (June 20, 2018), implemented by Decree n° 2018-687 (Aug. 1, 2018), and Order n° 2018-1125 (Dec. 12, 2018).

[1410] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[1411] CNIL, *Algorithms and artificial intelligence: CNIL's report on the ethical issues* (May 25, 2018), https://www.cnil.fr/en/algorithms-and-artificial-intelligence-cnils-report-ethical-issues

[1412] CNIL, *Algorithmes et discriminations : le Défenseur des droits, avec la CNIL, appelle à une mobilisation collective* (May, 2020), https://www.cnil.fr/fr/algorithmes-et-discriminations-le-defenseur-des-droits-avec-la-cnil-appelle-une-mobilisation

[1413] Global Privacy Assembly, *Declaration on Ethics and Data Protection in AI* (Oct. 23, 2018), http://globalprivacyassembly.org/wp-content/uploads/2019/04/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

Resolution on AI Accountability[1414] but it co-sponsored the 2022 GPA Resolution on Facial Recognition Technology.[1415]

In January 2023, the CNIL created an AI Department (AID) to improve its understanding of the risks posed by AI systems, prepare for the entry into force of the EU AI Act, and develop further relationships within the AI ecosystem.[1416] The AID Director will be Bertrand Pailhes, the former national coordinator for France's national AI strategy, helping to align AID's efforts with the national AI strategy's objectives and work towards creating a common EU framework for trustworthy and innovative AI.[1417]

Algorithmic Transparency

Following the assassination in October 2020 of history professor Samuel Paty, the Secretary of State for the Digital Transition and Electronic Communications, Cédric O, wrote in a blog that "the opacity of the functioning of (social media) algorithms and their moderation is a societal and democratic aberration." He added "it is also essential that full transparency be observed vis a vis the public authorities as regards the principles governing in detail the choices made by their moderation algorithms, whether it is about online hatred or dissemination of false information."[1418]

France is subject to the GDPR and Convention 108+ which both provide for a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[1419]

[1414] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[1415] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology (Oct. 2022)*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[1416] CNIL, *The CNIL creates an Artificial Intelligence Department and begins to work on learning databases*, CNIL (Jan. 26. 2023), https://www.cnil.fr/en/cnil-creates-artificial-intelligence-department-and-begins-work-learning-databases

[1417] Kingdom of the Netherlands, *INNOVATIVE AND TRUSTWORHTY AI: TWO SIDES OF THE SAME COIN* (Oct. 8, 2020), https://www.permanentreprresentations.nl/documents/publications/2020/10/8/non-paper---innovative-and-trustworthy-ai

[1418] Cédric O, *Régulations*, Medium.com (Oct. 20, 2020), https://medium.com/@cedric.o/r%C3%A9gulations-657189f5d9d2

[1419] See Recital 63 and Article 22 of the GDPR. Article 9 c) of the Convention 108+ as well as Recital 77, *Explanatory Report, Convention 108+*, p. 24,

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[1420] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[1421]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[1422]

The Health Data Hub Controversy

In pursuit of its open data policy objective, France launched the Health Data Hub (HDH) in December 2019[1423] to facilitate data sharing and

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https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1

[1420] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (April 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1421] Ibid.

[1422] Ibid.

[1423]Government of France, Ministry of Solidarity and Health, *Création officielle du Health data hub* (Dec. 2, 2019), https://solidarites-

foster research. This data sharing is done by amalgamating 18 public databases of patient data to connect with environmental, patient compliance, and quality of life data, enabling consideration of all the data surrounding a patient.[1424] The HDH's compiled health data is hosted by Microsoft.[1425]

Following the European Court of Justice's *Schrems II* judgment in July 2020 which invalidated the Privacy Shield, France's highest administrative court (the *Conseil d'État*) considered a request for the suspension of the HDH. In October 2020, the Conseil d'Etat rejected the request. The Conseil d'Etat observed that "personal data hosted in the Netherlands under a contract with Microsoft cannot legally be transferred outside the European Union. While the risk cannot be completely excluded that the American intelligence services request access to this data, it does not justify, in the very short term, the suspension of the Platform, but requires special precautions to be taken, under the supervision of the CNIL."[1426]

Following this decision, the CNIL announced it will advise public authorities on the implementation of appropriate guarantees and will ensure that use of the HDH's health crisis-related research projects is really necessary.[1427]

The press reported in October 2020 that the debates are far from over since the CNIL and the Conseil d'État do not have the same analysis of the situation. According to the CNIL, the end of the Privacy Shield requires an urgent change of host for the personal data. According to the Conseil d'Etat,

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sante.gouv.fr/actualites/presse/communiques-de-presse/article/creation-officielle-du-health-data-hub

[1424] Opus Line, *Heath Data Hub: An Ambitious French Initiative for Tomorrow's Health* (Mar. 25, 2019), https://www.opusline.fr/health-data-hub-an-ambitious-french-initiative-for-tomorrows-health/

[1425] Florian Dèbes, *L'Etat choisit Microsoft pour les données de santé et crée la polémique,* Les Ecos (June 4, 2020), https://www.lesechos.fr/tech-medias/hightech/letat-choisit-microsoft-pour-les-donnees-de-sante-et-cree-la-polemique-1208376

[1426] Le Conseil d'Etat, *Health Data Hub et protection de données personnelles: des précautions doivent être prises dans l'attente d'une solution pérenne* (Oct. 14, 2020), https://www.conseil-etat.fr/actualites/actualites/health-data-hub-et-protection-de-donnees-personnelles-des-precautions-doivent-etre-prises-dans-l-attente-d-une-solution-perenne

[1427] CNIL, *Le Conseil d'État demande au Health Data Hub des garanties supplémentaires pour limiter le risque de transfert vers les États-Unis* (Oct. 14, 2020), https://www.cnil.fr/fr/le-conseil-detat-demande-au-health-data-hub-des-garanties-supplementaires

the risks are hypothetical and not urgent.[1428] A CNIL's draft determination, could have essentially prevented the HDH's implementation.[1429] According to Mediapart, at the end of November 2020, the Minister of Health and Solidarity, Olivier Véran, responded to the President of the CNIL by saying he would put an end to Microsoft's hosting of the HDH within two years.[1430]

In 2022, health data remains a major concern for the CNIL. Indeed, this data, known as sensitive data in EU law, has been widely collected and processed by many different data controllers and processors in the current health context to fulfill different purposes. Some of these purposes are access to the workplace for certain professions, implementing a sanitary pass, monitoring COVID-19 evolution, establishing vaccination campaigns, deepening research, and implementing health protocols for COVID-19 patients, among others. In this regard, in January 2023, the CNIL issued its Standard relating to the processing of personal data implemented for the purpose of managing health vigilance systems.[1431]

GAIA-X

In April 2020, France and Germany launched Gaia-X, a platform joining up cloud-hosting services from dozens of French and German companies for business to move their data freely under Europe's data processing rules. "We are not China, we are not the United States — we are European countries with our own values and our own European interests that we want to defend" said French Economy Minister Bruno Le Maire.[1432] Gaia-X is meant to play a key role in the European data strategy as its

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[1428] Informatique News, *Divergences sur le Health Data Hub* (Oct. 19, 2020), https://www.informatiquenews.fr/divergences-sur-le-health-data-hub-les-annonces-de-zoomtopia-cohesity-sassocie-a-aws-des-iphone-12-en-5g-le-teletravail-en-question-netapp-insight-74042

[1429] Alice Vitard, *Les détails de la mise en œuvre du Health Data Hub ne conviennent pas à la Cnil,* L'Usine Digitale, (Nov. 14, 2020), https://www.usine-digitale.fr/article/les-details-de-la-mise-en-uvre-du-health-data-hub-ne-conviennent-pas-a-la-cnil.N1024349

[1430] Mediapart, *Health Data Hub: Véran s'engage à retirer l'hébergement à Microsoft d'ici «deux ans»* (Nov. 22, 2020), https://www.mediapart.fr/journal/france/221120/health-data-hub-veran-s-engage-retirer-l-hebergement-microsoft-d-ici-deux-ans

[1431] CNIL, *Standard relating to the processing of personal data implemented for the purpose of managing health vigilance systems* (Jan. 2023), https://www.cnil.fr/sites/default/files/atoms/files/standard_personal-data_health-vigilance-systems.pdf

[1432] Marion Simon Rainaurd, *Gaia-X : où en est le projet de méta-cloud européen qui veut protéger vos données*? (Nov. 13, 2020), https://www.01net.com/actualites/gaia-x-ou-en-est-le-projet-de-meta-cloud-europeen-qui-veut-proteger-vos-donnees-1991857.html

success lies in the ability to harmonize rules on data sharing.[1433] According to the GAIA-X website: "The exchange of data across organisations is currently constrained by proprietary, non-transparent, non-interoperable technologies that do not provide the necessary level of trust. Our concept of sovereignty translates into the autonomy and self-determination users need to operate their technology choices. Gaia-X enables and boosts the creation of Data Spaces through trusted platforms that comply with common rules, allowing users and providers to trust each other on an objective technological basis, to safely and freely share and exchange data across multiple actors." As of February 2023, Gaia-X has over 350 members, and is built upon three pillars: the Gaia-X Association, national Hubs, and Community. Each pillar contains several working groups and committees to ensure Gaia-X's objectives are met.

Gaia-X has been open to non-European firms, triggering worries that large American or Chinese companies could water down new rules or influence the initiative to benefit them rather than Europe's own interests.[1434]

Facial Recognition

Facial recognition technology (FRT) processes sensitive personal data prohibited, at least in principle, by the GDPR and the French data protection law, subject to exceptions such as individual's consent or for important public interests. In the latter case, FRT can be authorized by a Decree of the Conseil d'État informed by an opinion from the CNIL.

FRT has long been used in France on a voluntary basis with regard to passport control in airports, bank security, and has also been tested in several colleges. The deployment of a FRT-based ID program, Alicem,[1435] was scheduled for November 2019, despite a very critical opinion from the CNIL. Deployment was delayed after a group of NGOs appealed to the

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[1433] Janosch Delcker and Melissa Heikkilä, *Germany, France launch Gaia-X platform in bid for 'tech sovereignty,'* Politico (June 5, 2020), https://www.politico.eu/article/germany-france-gaia-x-cloud-platform-eu-tech-sovereignty/

[1434] Clothilde Goujard and Laurens Cerulus, *Inside Gaia-X: How chaos and infighting are killing Europe's grand cloud project*, Politico (Oct. 26, 2021), https://www.politico.eu/article/chaos-and-infighting-are-killing-europes-grand-cloud-project/

[1435] Charlotte Jee, *France plans to use facial recognition to let citizens access government services,* MIT Technology Review (Oct. 3, 2020), https://www.technologyreview.com/2019/10/03/132776/france-plans-to-use-facial-recognition-to-let-citizens-access-government-services/

Conseil d'État requesting the annulment of the decree authorizing its creation. In early November 2019, the Conseil d'État dismissed the appeal.[1436] The same month, the CNIL published guidance on the use of facial recognition.[1437] The document, primarily directed at public authorities in France that want to experiment with facial recognition, presents the technical, legal and ethical elements that need to be considered. After recalling that facial recognition, experimental or not, must comply with the GDPR and the LED, the CNIL sets out three general requirements: (1) facial recognition can only be used if there is an established need to implement an authentication mechanism that ensures a high level of reliability, and there are no other less intrusive means that would be appropriate; (2) the experimental use of facial recognition must respect the rights of individuals (including consent and control, transparency and security); and (3) the use of facial recognition on an experimental basis must have a precise timeline and be based on a rigorous methodology setting out the objectives pursued and the criteria for success.

In December 2019, the Observatoire des Libertés Numériques[1438] and 80 organisations signed an open letter calling on the French Government and Parliament to ban any present and future use of facial recognition for security and surveillance purposes.[1439]

In 2020, the administrative tribunal of Marseille rendered a decision on facial recognition that ruled illegal a decision by the South-East Region of France (Provence-Alpes-Côte d'Azur) to test facial recognition at the

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[1436] Marion Garreau, *Le ministère de l'Intérieur va pouvoir lancer l'application Alicem, basée sur la reconnaissance faciale*, L'Usine Nouvelle (Nov. 5, 2020), https://www.usinenouvelle.com/editorial/le-ministere-de-l-interieur-va-pouvoir-lancer-l-application-alicem-basee-sur-la-reconnaissance-faciale.N1024754

[1437] CNIL, *Reconnaissance faciale - pour un débat à la hauteur des enjeux* (Nov. 2020), https://www.cnil.fr/sites/default/files/atoms/files/reconnaissance_faciale.pdf (in French).

[1438] The Observatoire des Libertés Numériques federates several French NGOs monitoring legislation impacting digital freedoms: Le CECIL, Creis-Terminal, Globenet, La Ligue des Droits de l'Homme (LDH), La Quadrature du Net (LQDN), Le Syndicat des Avocats de France (SAF), Le Syndicat de la Magistrature (SM).

[1439] La Quadrature du Net*, Joint Letter from 80 organisations: Ban Security and Surveillance Facial Recognition* (Dec. 19, 2019), https://www.laquadrature.net/en/2019/12/19/joint-letter-from-80-organisations-ban-security-and-surveillance-facial-recognition/

entrance of two High schools.[1440] Following an analysis from the CNIL,[1441] the court ruled that there was no opportunity for free and informed consent and also that there were other, less intrusive means to manage entrance to high schools.[1442] This was the first decision ever by a court applying the General Data Protection Regulation (GDPR) to Facial Recognition Technologies (FRTs).[1443]

However, many other experiments are taking place, and companies are positioning themselves, with the Olympic Games in Paris in 2024 in their sights, and a market of seven billion euros at stake.[1444]

In May 2022, the EDPB has produced guidelines on the use of FRT in the area of law enforcement.[1445] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[1446] A few months later, in October

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[1440] Tribunal Administratif de Marseille, *La Quadrature du Net, No. 1901249* (27 Nov. 2020), https://forum.technopolice.fr/assets/uploads/files/1582802422930-1090394890_1901249.pdf

[1441] CNIL, *Expérimentation de la reconnaissance faciale dans deux lycées : la CNIL précise sa position* (Oct. 29, 2019), https://www.cnil.fr/fr/experimentation-de-la-reconnaissance-faciale-dans-deux-lycees-la-cnil-precise-sa-position

[1442] La Quadrature du Net, *First Success Against Facial Recognition in France* (Feb. 27, 2020), https://www.laquadrature.net/en/2020/02/27/first-success-against-facial-recognition/

[1443] AI Regulation, *First Decision of a French Court Applying GDPR to Facial Recognition* (Feb. 27, 2020), https://ai-regulation.com/first-decision-ever-of-a-french-court-applying-gdpr-to-facial-recognition/

[1444] France Culture, *Quand la reconnaissance faciale en France avance masquée* (Sept. 4, 2020), https://www.franceculture.fr/societe/quand-la-reconnaissance-faciale-en-france-avance-masquee

[1445] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

[1446] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

2022, the CNIL imposed a €20 million fine on Clearview AI for unlawful use of facial recognition technology. [1447]

Lethal Autonomous Weapons

President Macron declared in an interview that he is "dead against" the deployment of lethal autonomous weapons. [1448]"You always need responsibility and assertion of responsibility." However, the French government has only proposed the adoption of a nonbinding declaration to curtail Lethal Autonomous Weapons (LAWS), and is opposed to the idea of a new international treaty on the issue,[1449] though an earlier French initiative led to annual international discussions on LAWS within the framework of the Convention on Certain Conventional Weapons.[1450]

In October 2022, France was one of 70 states that endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an international framework of rules and constraints.[1451] In this joint statement, States declared that they "are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[1452]

[1447]https://www.cnil.fr/en/facial-recognition-20-million-euros-penalty-against-clearview-ai

[1448] Nicholas Thompson, *Emmanuel Macron Talks to Wired About France's AI Strategy*, Wired (Mar. 31, 2018), https://www.wired.com/story/emmanuel-macron-talks-to-wired-about-frances-ai-strategy/

[1449] *Armes : Il faut négocier un traité d'interdiction des armes létales autonomes* [*Weapons: We Must Negotiate a Treaty to Ban Lethal Autonomous Weapons*], Human Rights Watch (Aug. 27, 2018), https://www.hrw.org/fr/ news/2018/08/27/armes-il-faut-negocier-un-traite-dinterdiction-des-armes-letales-autonomes, *archived at* https://perma.cc/JC23-3BFB

[1450] Mission permanente de la France aupres de la Conference du désarmement à genève, *Presentation and Position of France* (Aug. 3, 2016), https://cd-geneve.delegfrance.org/Presentation-and-position-of-France-1160, *archived at* https://perma.cc/6XD3-U82R

[1451] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly,* (2022) https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

[1452] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

In February 2023, France participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, France, together with other countries, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[1453] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[1454]

Human Rights

France is a signatory to many international human rights treaties and conventions. France typically ranks among the top nations in the world for the protection of human rights and transparency.[1455] Freedom House reports, "The French political system features vibrant democratic processes and generally strong protections for civil liberties and political rights. However, due to a number of deadly terrorist attacks in recent years, successive governments have been willing to curtail constitutional protections and empower law enforcement to act in ways that impinge on personal freedoms."

The French Ombudsman and the CNIL have "both, in their own area of expertise, voiced their concerns regarding the impact of algorithmic

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[1453] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

[1454] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[1455] *Freedom House Report: France* (2020), https://freedomhouse.org/country/france

systems on fundamental rights."[1456] Following a joint expert seminar in May 2020, they have called in June 2020 for a collective mobilization to prevent and address discriminatory biases of algorithms.[1457]

In their report, Algorithms: preventing automated discrimination,[1458] the CNIL and the ombudsman stresse that bias can be introduced at every stage of the development and deployment of AI systems, discuss how algorithms can lead to discriminatory outcomes and include recommendations on how to identify and minimize algorithmic biases. The Ombudsman called on the government and relevant actors to take appropriate measures to avoid algorithms that replicate and amplify discrimination.[1459] In particular, the Ombudsman recommended to: i) support research to develop studies to measure, and methods to prevent bias; ii) reinforce information, transparency and explainability requirements with regard to algorithms; and iii) perform impact assessments to anticipate discriminatory effects of algorithms.

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to

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[1456] Defender of Rights and CNIL, Algorithms: preventing automated discrimination (2020), https://www.defenseurdesdroits.fr/sites/default/files/atoms/files/synth-algos-en-num-16.07.20.pdf

[1457] CNIL, *Algorithms and discrimination: the Defender of Rights, with the CNIL, calls for collective mobilization* (June 2, 2020), https://www.cnil.fr/fr/algorithmes-et-discriminations-le-defenseur-des-droits-avec-la-cnil-appelle-une-mobilisation

[1458] Defender of Righta, *Algorithms: preventing automated discrimination* n. 19 (May 2020), https://www.defenseurdesdroits.fr/sites/default/files/atoms/files/synth-algos-en-num-16.07.20.pdf

[1459] Inside Tech Media, *French CNIL Publishes Paper on Algorithmic Discrimination* (June 9, 2020), https://www.insideprivacy.com/artificial-intelligence/french-cnil-publishes-paper-on-algorithmic-discrimination/

amplifying positive effects and preventing or minimising possible adverse effects."[1460]

In April 2022, the French National Consultative Commission on Human Rights also adopted an opinion on the impact of artificial intelligence on fundamental rights. The consultative Commission recommends prohibiting certain uses of AI that are considered too prejudicial to fundamental rights, such as social scoring or remote biometric identification of people in public spaces and places accessible to the public.[1461]

OECD / G20 AI Principles

France endorsed the OECD and the G20 AI Principles.

In 2020, France and Canada, and a dozen other countries announced the Global Partnership on Artificial Intelligence to "support the responsible and human-centric development and use of AI in a manner consistent with human rights, fundamental freedoms, and our shared democratic values."[1462] According to the statement, the "GPAI will be supported by a Secretariat, to be hosted by the OECD in Paris, as well as by two Centers of Expertise – one each in Montréal and Paris."

The OECD also praised France for its commitment to following OECD recommendations with regard to its public administration, by publishing a guide for public administrations on the responsible use of algorithms in the public sector.

UNESCO Recommendation on the Ethics of Artificial Intelligence

France endorsed the 2021 UNESCO Recommendation on AI Ethics, the first ever global agreement on the ethics of AI. It remains to be seen which steps it will take to implement it.

Evaluation

France is among the leaders in national AI policies. France has endorsed the OECD / G20 AI Principles and contributed to the creation of

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[1460] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (April 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1461] CNCDH, *Avis relatif à l'impact de l'intelligence artificielle sur les droits fondamentaux* (A-2022-6), https://www.cncdh.fr/publications/avis-relatif-limpact-de-lintelligence-artificielle-sur-les-droits-fondamentaux-2022-6

[1462] Government of Canada, *Joint Statement from founding members of the Global Partnership on Artificial Intelligence* (June. 15, 2020), https://www.canada.ca/en/innovation-science-economic-development/news/2020/06/joint-statement-from-founding-members-of-the-global-partnership-on-artificial-intelligence.html

the Global Partnership on AI. French authorities in charge of human rights, data protection and ethics are actively involved in AI policy and have published practical guidance regarding facial recognition and algorithmic transparency. France anticipated the entry into force of the EU AI Act by creating a dedicated AI unit with its data protection authority. However, when it comes to the use of AI by law enforcement authorities and for security purposes, some resistance exists to fully enforce fundamental rights.

Germany

National AI Strategy

The German government initially published its national AI strategy in November 2018.[1463] The three main goals are (1) "to make Germany and Europe a leading centre for AI and thus help safeguard Germany's competitiveness in the future", (2) to ensure "a responsible development and use of AI which serves the good of society," and (3) to "integrate AI in society in ethical, legal, cultural and institutional terms in the context of a broad societal dialogue and active political measures."

In December 2020, Germany updated its AI Strategy. The federal government responded to current developments - with an overview of AI principles and frameworks developed between 2018 and 2020 -, and high-priority topics such as the COVID-19 pandemic - with a discussion on how AI can help with "pandemic control -," or environmental and climate protection.[1464]

From 2018 to 2021, the Digitalrat or Digital Council advised the German federal Government on how to best implement the National AI Strategy. The Committee is comprised of AI experts in science and business. An exchange between politics and national as well as international experts is also at the forefront of their activities.[1465][1466] The 2021 coalition agreement of the German government describes AI as a crucial strategic technology for the future and addresses many key AI topics, although the German AI Association, a federation of AI companies and organizations,

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[1463] German Federal Government, *Artificial Intelligence Strategy,* (Nov. 2020), https://www.ki-strategie-deutschland.de/files/downloads/Fortschreibung_KI-Strategie_engl.pdf

[1464] German Federal Government, *Artificial Intelligence Strategy of the German Federal Government* (Dec. 2020), https://www.ki-strategie-deutschland.de/files/downloads/Fortschreibung_KI-Strategie_engl.pdf; OECD, *State of Implementation of the OECD AI Principles Insights from National AI Policies* (June Dec. 20201), p. 69, https://www.oecd.org/digital/state-of-implementation-of-the-oecd-ai-principles-1cd40c44-en.htm https://www.ki-strategie-deutschland.de/files/downloads/Fortschreibung_KI-Strategie_engl.pdf

[1465] German Federal Government, *Der Digitalrat: Experten, die uns antreiben,* https://www.bundesregierung.de/breg-de/service/archiv/der-digitalrat-experten-die-uns-antreiben-1504866

[1466] German Federal Government, *Digitalisierung wird Chefsache,* https://www.bundesregierung.de/breg-de/aktuelles/digitalisierung-wird-chefsache-1140420

has noted that the agreement also has its flaws, notably with regards to data protection.[1467]

The guiding slogan for the German national strategy is "AI made in Germany." One section of the AI Strategy states: "The Federal Government advocates using an "ethics by, in and for design" approach throughout all development stages and for the use of AI as the key element and hallmark of an "AI made in Europe" strategy." The Strategy continues, "The Federal Government is engaging in dialogue with national and international bodies, including the Data Ethics Commission or the EU Commission's High-Level Expert Group on AI and will take into account the recommendations of these bodies as it develops standards on ethical aspects at German and European level."

AI ethics is a core component of the AI Strategy.[1468] The German government further emphasizes transparency for the development of AI to ensure the protection of civil rights and maintain trust in businesses and institutions. The AI Strategy suggests that "government agencies or private-sector auditing institutions" should "verify algorithmic decision-making in order to prevent improper use, discrimination and negative impacts on society."

Germany has launched several projects to implement its National AI Strategy. According to the OECD, there are approximately 29 initiatives on AI across several topics and institutions.[1469] They range from the ethical guidelines to initiatives that foster fruitful business environments. There are four that specifically focus on ethics.

First, the Ethical Guidelines for Automated and Connected Driving set out 20 ethical principles for autonomous and semi-autonomous vehicles.[1470] This was among the first guidelines worldwide to establish ethical principles for connected vehicular traffic. The Ethical Guidelines led

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[1467] German AI Association, *Statement on the Coalition Agreement,* https://ki-verband.de/en/statement-on-the-coalition-agreement/

[1468] The Federal Government of Germany, *Artificial Intelligence Strategy* (Nov. 2018), https://www.ki-strategie-deutschland.de/home.html?file=files/downloads/Nationale_KI-Strategie_engl.pdf

[1469] OECD.ai, *AI in Germany*, https://oecd.ai/dashboards/countries/Germany/

[1470] Federal Ministry of Transport and Digital Infrastructure, *Ethics Commission: Automated and Connected Driving* (2017), https://www.bmvi.de/SharedDocs/EN/publications/report-ethics-commission-automated-and-connected-driving.pdf

to an action plan and the "creation of ethical rules for self-driving cars" that was adopted by the Federal Government.[1471]

Second, the German AI Observatory forecasts and assesses AI technologies' impact on society. The AI Observatory also develops regulatory frameworks that help deal with the rapidly changing labor market to ensure that social aspects of these changes are not neglected.[1472]

Third, although not mentioning AI explicitly, the Ethical, Legal and Social Aspects of Modern Life Sciences Funding Priority, launched originally in 1997, funds research with the goal of establishing "findings regarding the opportunities and risks presented by modern life sciences" and developing a basis for discourse amongst involved stakeholders.[1473]

Fourth, the Federal Ministry for Economic Cooperation and Development launched the Development Cooperation initiative FAIR Forward in 2019. The initiative aims to promote a more "open, inclusive and sustainable approach to AI on an international level" by "working together with five partner countries: Ghana, Rwanda, South Africa, Uganda and India." The FAIR Forward goals are to: Strengthen Technical Know-How on AI, Remove Entry Barriers to AI, and Develop Policy Frameworks ready for AI. Several projects are underway in partner countries.[1474]

Further, the Federal Ministry for Economic Affairs and Energy launched a Regulatory Sandboxes initiative in 2018. This initiative, although not specifically dedicated to AI, focuses on "testing innovation and regulation which enable digital innovations to be tested under real-life conditions and experience to be gathered."[1475]

[1471] Federal Ministry of Transport and Digital Infrastructure, *Automated and Connected Driving,* https://www.bmvi.de/EN/Topics/Digital-Matters/Automated-Connected-Driving/automated-and-connected-driving.html

[1472] Denkfabrik: Digitale Arbeitsgesellschaft, Policy Lab Digital, *Work & Society: Re-imaging Work*, https://www.denkfabrik-bmas.de/en/about-us/policy-lab-digital-work-society-re-imagining-work

[1473] Federal Ministry of Education and Research, *The ELSA funding initiative* (June 2016), https://www.gesundheitsforschung-bmbf.de/files/bmbf_flyer_ELSA_funding_initiative_e.pdf

[1474] Toolkit Digitalisierung, *FAIR Forward – Artificial Intelligence for All*, https://toolkit-digitalisierung.de/en/fair-forward/

[1475] Federal Ministry for Economic Affairs and Energy, *Regulatory Sandboxes – Testing Environments for Innovation and Regulation* (June 2019), https://www.bmwi.de/Redaktion/EN/Dossier/regulatory-test-beds-testing-environments-for-innovation-and-regulation.html

In response to the European Commission's White Paper on AI,[1476] Germany called for tighter regulation of AI on the EU level in 2020. The German government stated it welcomes new regulations but wants more specific definitions and stricter requirements for data storage, more focus on information security and more elaborate definitions of when human supervision is needed.[1477]

Data Ethics Commission

In 2018, the German federal government established a Data Ethics Commission to "build on scientific and technical expertise in developing ethical guidelines for the protection of the individual, the preservation of social cohesion, and the safeguarding and promotion of prosperity in the information age."[1478] In 2020, the Commission recommended to the German parliament that sustainability, justice and solidarity, democracy, security, privacy, self-determination and human dignity should be the ethical and legal principles that guide the regulation of AI.[1479] The Data Ethics Commission suggested a risk-based approach to the regulation of AI, which distinguishes five levels of criticality in a "criticality pyramid" and respective measures in its risk-adapted regulatory system for the use of algorithmic systems. The Commission also recommended the establishment of "*ex ante* approval mechanisms and continuous supervision by oversight bodies."[1480]

The German consumer organization federation *Verbraucherzentrale Bundesverband* (vzbv) favored the creation of the Commission and strongly supported the recommendations, as did the main German industry body *Bundesverband der Deutschen Industrie* (BDI).[1481] The vzbv further emphasized that the aim of Automated Decision Making (ADM) regulation must be to ensure compliance with existing laws. Toward that goal, "it must

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[1476] European Commission, *White Paper on Artificial Intelligence: a European approach to excellence and trust* (Feb. 19, 2020), https://commission.europa.eu/publications/white-paper-artificial-intelligence-european-approach-excellence-and-trust_en

[1477] German Federal Government, *Stellungsnahme der Bundesregierung der Bundesrepublik Deutschland zum Weissbuch zur Künstlichen Intelligenz – ein europäisches Konzept für Exzellenz und Vertrauen* (2020),

[1478] Bundesministerium der Justiz und für Verbraucherschutz, *Data Ethics Commission*, https://www.bmi.bund.de/DE/themen/it-und-digitalpolitik/datenethikkommission/datenethikkommission-node.html

[1479] Datenethikkommission, *Opinion of the Data Ethics Commission* (Jan. 2020), https://www.bmjv.de/SharedDocs/Downloads/DE/Themen/Fokusthemen/Gutachten_DEK_EN_lang.pdf?__blob=publicationFile&v=3

[1480] Louisa Well, *Algorithmwatch Automating Society Report - Germany* (2020), https://automatingsociety.algorithmwatch.org/report2020/germany/

[1481] Vzbz, *Communication between the Editor and Isabelle Buscke* (Nov. 27, 2020).

be possible for supervisory authorities to scrutinise and verify the legality of ADM systems and their compliance with existing laws so that they can impose penalties if the law is infringed."[1482] Vzbv also noted it is "important to ensure consumers' self-determination when making decisions, to strengthen consumers' confidence in ADM systems by creating transparency and to foster competition and innovation."

Public Participation

Germany's national AI strategy points out that its 2019 data strategy is based on "broad public consultation and a host of expert discussions," though participation in developing and updating its AI strategy was primarily limited to "experts in expert forums."[1483]

One AI initiative, *Plattform Lernende Systeme* (Platform for Self-Learning Systems),[1484] focuses specifically on fostering dialogue between different stakeholders, like civil society, government, and business on the topic of self-learning systems. The Platform also aims to "shape self-learning systems to ensure positive, fair and responsible social coexistence" as well as strengthen skills for developing and using self-learning systems.[1485] The IT Security, Privacy, Legal and Ethical Framework working group has published several papers on AI security and ethical issues.[1486]

To inform the public about AI policy, the German government created a website (KI-Strategie-Deutschland.de) to provide information on AI strategy implementation and new policy developments.[1487] *Plattform Lernende Systeme* also offers a map that shows AI developments across Germany by region.[1488]

Germany's federal parliament also set up a Study Commission comprised in equal parts of parliamentary representatives and experts called

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[1482] Vzbv, *Artificial Intelligence: Trust is Good, Control is Better* (2019), https://www.vzbv.de/sites/default/files/2019_vzbv_factsheet_artificial_intelligence.pdf

[1483] German Federal Government, *Artificial Intelligence Strategy of the German Federal Government* (Dec. 2020), https://www.ki-strategie-deutschland.de/files/downloads/Fortschreibung_KI-Strategie_engl.pdf

[1484] Literally "Platform for Self-Learning Systems", but self-branded in English as Platform for AI.

[1485] Lernende Systeme, *Mission Statement*, https://www.plattform-lernende-systeme.de/mission-statement.html

[1486] Lernende Systeme, *WG 3: IT Security, Privacy, Legal and Ethical Framework,* https://www.plattform-lernende-systeme.de/wg-3.html

[1487] German Federal Government, *KI-Strategie*, https://www.ki-strategie-deutschland.de/home.html

[1488] Lernende Systeme, *Artificial Intelligence in Germany*.

the "Study Commission on Artificial Intelligence, Social Responsibility, and Economic, Social and Ecological Potential."[1489] The Commission's aim was to develop recommendations on AI and examine its impact on "our value systems, fundamental and human rights, and [its] benefits for society and the economy." Some of their meetings were broadcasted on parliamentary television or could be attended in person. After two years of work, the Study Commission presented its final report to the federal parliament (Bundestag) on October 28, 2020. The Commission's findings were debated in the Bundestag on November 5, 2020.[1490]

Data Protection

Since Germany is an EU Member State, the General Data Protection Regulation (GDPR)[1491] is directly applicable in Germany and to Germans. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[1492] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018.

The activities of law enforcement authorities have been addressed at EU level by the EU Data Protection Law Enforcement Directive (LED)[1493]. "The directive protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will

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[1489] German Parliament, Enquete-Kommission, *Künstliche Intelligenz – Gesellschaftliche Verantwortung und wirtschaftliche, soziale und ökologische Potenziale*, https://www.bundestag.de/webarchiv/Ausschuesse/ausschuesse19/weitere_gremien/enquete_ki

[1490] German Parliament, *Bericht der Enquete-Kommission Künstliche Intelligenz* (Oct. 28, 2020),

[1491] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

[1492] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1493] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

facilitate cross-border cooperation in the fight against crime and terrorism."[1494] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[1495] The LED also requires for Member States, including Germany, to enable data subjects to exercise their rights via national data protection authorities.[1496]

The Federal Data Protection Act (*Bundesdatenschutzgesetz*, BDSG) was designed to bring the German privacy law on par with the GDPR and the LED. It is usually referred to as the "BDSG-new" since it replaced the former BDSG on May 25, 2018.[1497] In addition to the BDSG-new, there are various sector-specific data protection regulations, such as those governing financial and energy industries. In December 2021, the Telecommunications Telemedia Data Protection Act (TTDSG) was introduced and set to be enforced in 2023. The TTDSG contains regulations about cookie management and Personal Information Management Systems.[1498] Further, the German Civil Code Article 327q is intended to protect user privacy in cases where a consumer gives their personal data in order to access a service.[1499]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Germany is also a member of the Council of Europe and ratified the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[1500]

[1494] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1495] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[1496] Article 17 of the LED.

[1497] *Federal Data Protection Act* (Bundesdatenschutzgesetz, BDSG), https://germanlawarchive.iuscomp.org/?p=712

[1498] TTDSG, *Telekommunikation-Telemedien-Datenschutz-Gesetz*, https://gesetz-ttdsg.de

[1499] Federal Ministry of Justice, *German Civil Code,* https://www.gesetze-im-internet.de/englisch_bgb/

[1500] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018), https://www.coe.int/en/web/data-protection/convention108-and-protocol

AI Oversight

The German Federal Commissioner for Data Protection and Freedom of Information (*Der Bundesbeauftragte für den Datenschutz und die Informationsfreiheit*) is the national data protection authority for Germany. It is however only in charge of federal government authorities and private telecoms and postal services. [1501] The Federal Data Protection Commissioner is a member of the Global Privacy Assembly since 2002. It co-sponsored the 2018 GPA Declaration on Ethics and Data Protection in AI[1502] and sponsored the 2020 GPA Resolution on AI Accountability.[1503] However, the Federal Data Protection Commissioner did not endorse the 2022 GPA Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology.[1504]

Any other private entity and all other authorities in Germany is regulated by the relevant state DPA.

In Bavaria, there is one authority responsible for the private sector and one for the public sector: the Data Protection Authority of Bavaria for Private Sector (BayLDA) and the Bavarian Data Protection Commissioner, which is responsible for enforcing data rights against public authorities and government agencies.[1505] In other states, one authority is responsible for all data protection supervision and enforcement in the state. One example of this is Hessen, where the Hessian Commissioner for Data Protection and Freedom of Information is responsible for the public authorities, government agencies as well as the private sector.[1506]

[1501] Landesbeauftragte für Datenschutz und Informationsfreiheit Nordrhein-Westfalen, *Datenschutzaufsichtsbehörden für den nicht-öffentlichen Bereich.*

[1502] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), http://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1503] Global Privacy Assembly, *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[1504] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[1505] Datenschutz Bayern, *Bavarian Data Protection Commissioner*; BayLDA - *Offizielle Webseite*,

[1506] Datenschutz Hessen, *Zuständigkeit des Hessischen Beauftragten für Datenschutz und Informationsfreiheit*, https://datenschutz.hessen.de/ueber-uns/zuständigkeit-des-hessischen-datenschutzbeauftragten

In 2021, numerous German DPAs launched a collective investigation on the use by German companies of third-party providers outside the EU and their compliance with the 2020 European Court of Justice's *Schrems II* decision with regard to international data transfers. The Court has made clear that DPAs shall intervene to suspend or prohibit transfers which do not match the *Schrems II* criteria.[1507]

Several State DPA are members of the Global Privacy Assembly but none of them has endorsed GPA's AI-related resolutions.[1508]

The German Institute for Human Rights, founded in 2001 by the German Bundestag (Parliament) as an independent national institution, works to ensure the observation and promotion of human rights by the German government in Germany and abroad.[1509] The Institute published an interview on protecting human rights when applying AI in the context of elderly care in 2019[1510] and has emphasized the importance of assessing and preventing the human rights risks of Artificial Intelligence in 2021,[1511] though the Institute has not indicated that it sees a sustained oversight of AI-related human rights infringements as a priority.

Algorithmic Transparency

Germany is subject to the GDPR and Convention 108+. Germans have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[1512]

[1507] European Data Protection Board, *Coordinated German investigation of international data transfers* (July 2021), https://edpb.europa.eu/news/national-news/2021/coordinated-german-investigation-international-data-transfers_en

[1508] Global Privacy Assembly, *List of Accredited Members*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[1509] German Institute for Human Rights, *Das Institut*, https://www.institut-fuer-menschenrechte.de/das-institut https://www.institut-fuer-menschenrechte.de/das-institut

[1510] German Institute for Human Rights, *Miteinander von Mensch und Maschine* (Nov. 19, 2019), https://www.institut-fuer-menschenrechte.de/aktuelles/detail/miteinander-von-mensch-und-maschine

[1511] German Institute for Human Rights, *Algorithmische Entscheidungssysteme* (Jul. 2021), https://www.institut-fuer-menschenrechte.de/fileadmin/Redaktion/Publikationen/Information/Information_Algorithmische_Entscheidungssysteme.pdf

[1512] See Recital 63 and Article 22 of the GDPR. Article 9 c) of the Convention 108+ as well as Recital 77, *Explanatory Report, Convention 108+*, p. 24, https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[1513] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[1514]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[1515]

In 2019, the Ministry of Education and Research started a funding priority for AI R&D projects on explainability and transparency. The Ministry stated that improving explainability and transparency are two of

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[1513] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1514] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1515] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

the Federal government's central research goals.[1516] Funding is "aimed at collaborative projects between science and industry in an interdisciplinary composition."[1517] The German consumer organization vzbv emphasized in 2019 that the aim of automated decision-making regulation must be to ensure compliance with existing laws.[1518]

In 2020, the German Data Ethics Commission for its part sees auditability, explainability, and redress possibilities as crucial for algorithm safety.[1519] However, even though Germany has had a significant impact on the drafting of the EU AI Act and its transparency regulations, AlgorithmWatch has noted that Germany (and specifically its Ministry of the Interior) has in recent years tried to water down transparency obligations for AI systems in the AI Act, most notably with regard to exemptions for AI use in "law enforcement, migration, asylum and border control," including remote biometric identification systems.[1520]

According to AlgorithmWatch,[1521] the data protection agencies of the federal government and eight German federal states stated that greater transparency in the implementation of algorithms in the administration was indispensable for the protection of fundamental rights.[1522] The agencies demanded that if automated systems are used in the public sector, it is crucial that processes are intelligible, and can be audited and controlled. In addition, public administration officials have to be able to provide an explanation of the logic of the systems used and the consequences of their use. Self-learning systems must also be accompanied by technical tools to analyze and explain their methods. An audit trail should be created, and the

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[1516] Bundesministerium für Bildung und Forschung, _KI-Erklärbarkeit und Transparenz,_ https://www.softwaresysteme.pt-dlr.de/de/ki-erkl-rbarkeit-und-transparenz.php

[1517] OECD G20 Digital Economy Task Force, _Examples of AI National Policies_ (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf

[1518] Vzbv, _Artificial Intelligence: Trust is Good, Control is Better_ (2019), https://www.vzbv.de/sites/default/files/2019_vzbv_factsheet_artificial_intelligence.pdf

[1519] Datenethikkommission, _Opinion of the Data Ethics Commission_ (Oct. 2019), https://www.bmj.de/SharedDocs/Downloads/DE/Themen/Fokusthemen/Gutachten_DEK _EN.pdf?__blob=publicationFile&v=1

[1520] Nikolett Aszódi and Matthias Spielkamp, _How the German government decided not to protect people against the risks of AI_ (Dec. 6, 2022), https://algorithmwatch.org/en/german-government-risks-of-ai/

[1521] Algorithm Watch, _Automating Society: Germany_ (Jan. 29, 2019), https://algorithmwatch.org/en/automating-society-2019/germany

[1522] Freedom of Information Commissioners in Germany, _Transparenz der Verwaltung beim Einsatz von Algorithmen für gelebten Grundrechtsschutz unabdingbar_ (Oct. 16, 2018), https://www.datenschutzzentrum.de/uploads/informationsfreiheit/2018_Positionspapier-Transparenz-von-Algorithmen.pdf

software code should be made available to the administration and, if possible, to the public. According to the position paper, there need to be mechanisms for citizens to demand redress or reversal of decisions, and the processes must not be discriminating. In cases where there is a high risk for citizens, there needs to be a risk assessment done before deployment. Very sensitive systems should require authorization by a public agency that has yet to be created.

In January 2023, Mannheim, in collaboration with eight other cities across Europe and with the help of Eurocities' Digital Forum, adopted an algorithm register, the Algorithmic Transparency Standard.[1523] The aim is to provide more information for residents with regard to the use of algorithm by municipalities and their impact. The register includes a range of information such as the type and purpose of an algorithm, the department using the algorithm, the geographical area and domain it relates to and a risk category. It also includes details on the data source and training data, any bias and mitigation, and human oversight. This initiative builds on similar algorithm registers launched in Amsterdam and Helsinki in September 2020.

According to André Sobczak, Secretary General, Eurocities, "[t]he efforts undertaken by these cities aim to set a standard for the transparent and ethical use of algorithms while their use is still in its relative infancy across city administrations in Europe. In this way, they seek to offer both a safeguard for people whose data may be used by algorithms, and have created a validated model that other cities can use straight away, without having to invest further resources themselves." [1524]

Facial Recognition

German governments have launched several projects on facial recognition technology, but these have been met with considerable public resistance. In 2017, Hamburg police deployed facial recognition technology in the wake of the G20 protests, which led to a three-year legal battle involving the Hamburg DPA and several courts that ended with the police deleting its biometric database in 2020.[1525] In 2018, the German Ministry of

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[1523] Algorithm register, *Algorithmic Transparency Standard*, https://www.algorithmregister.org
[1524] Eurocities, *Nine cities set standards for the transparent use of Artificial Intelligence* (Jan. 23, 2023), https://eurocities.eu/latest/nine-cities-set-standards-for-the-transparent-use-of-artificial-intelligence/
[1525] The Hamburg Commissioner for Data Protection and Freedom of Information, *Hamburg Police deletes the biometric database for facial recognition created in the course of the G20 investigations* (May 28, 2020), https://datenschutz-hamburg.de/assets/pdf/2020-05-28-Press-Release_Biometric_Database.pdf

the Interior deployed facial recognition technology at a large train station in Berlin, sparking opposition from civil society.[1526] There was further outcry in 2020, when *Der Spiegel* reported that Germany planned to set up cameras capable of identifying people at 134 train stations and 14 airports.[1527] In 2021, Germany's incoming coalition government said it would exclude biometric recognition in public spaces as well as automated state scoring systems by AI.[1528] A January 2023 study showed that German citizens, when asked about facial recognition technology, generally "call for strong regulations to address associated risks," although citizens' trust in the government is correlated with their attitudes towards facial recognition technology.[1529]

In late 2022 and early 2023, Germany has made clear it has some reservations on the AI Act, although its position seems to mesh well with the Act's general approach.[1530] Germany's position has been somewhat inconsistent: the German government favored a total ban on remote biometric identification technology in 2021 as per its coalition agreement[1531] while, in 2023, it only supported a ban on *real-time* biometric recognition identification and would allow ex-post identification systems.[1532]

[1526] Janosch Delcker, *Big Brother in Berlin,* Politico (Sep. 13, 2018), https://www.politico.eu/article/berlin-big-brother-state-surveillance-facial-recognition-technology/

[1527] Phillipp Grüll, *Germany's plans for automatic facial recognition meet fierce criticism,* Euractiv (Jan. 10, 2020),

[1528] POLITICO, *German coalition backs ban on facial recognition in public places* (Nov. 24, 2021), https://www.politico.eu/article/german-coalition-backs-ban-on-facial-recognition-in-public-places/; Alliance for Freedom, Justice, and Sustainability, *Dare More Progress: Coalition agreement 2021 – 2025 between the Social Democratic Party of Germany (SPD), ALLIANCE 90 / THE GREENS and the Free Democrats (FDP),* https://www.welt.de/bin/Koalitionsvertrag%202021-2025.pdf_bn-235257672.pdf

[1529] Genia Kostka, Léa Steinacker and Miriam Meckel, *Under big brother's watchful eye: Cross-country attitudes toward facial recognition technology*, Government Information Quarterly, 40(1) (Jan. 2023), https://doi.org/10.1016/j.giq.2022.101761

[1530] Luca Bertuzzi and Molly Killeen, *Tech Brief: Germany's AI reservations, fair share moves in the metaverse* (Jan. 13, 2023), https://www.euractiv.com/section/digital/news/tech-brief-germanys-ai-reservations-fair-share-moves-in-the-metaverse/

[1531] Federal Government, *Mehr Fortschritt wagen* (2021), https://www.bundesregierung.de/resource/blob/974430/1990812/04221173eef9a6720059cc353d759a2b/2021-12-10-koav2021-data.pdf

[1532] Luca Bertuzzi, *Germany could become MEPs' ally in AI Act negotiations* (Jan. 10, 2023), https://www.euractiv.com/section/artificial-intelligence/news/germany-could-become-meps-ally-in-ai-act-negotiations/

The European Data Protection Board (EDPB) has produced guidelines on the use of facial recognition technologies in the area of law enforcement.[1533] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[1534]

Predictive Policing

The German police has launched several projects using AI to assist in predictive policing both on the federal and state level. The Federal Crime Agency has used risk scoring for "militant Salafists"[1535] while several state police forces have deployed PRECOBS, an anti-burglary system, with varying success. The police of Baden-Württemberg, for instance, started a pilot project with PRECOBS in 2015[1536] that was ended in 2019 "due to data quality issues."[1537] North Rhine-Westphalia developed and tested the predictive policing tool SKALA from 2015 to 2018.[1538] In late 2022, Germany's Constitutional Court started a legal review of surveillance software deployed by police in the state of Hesse since 2017. The software, dubbed 'Hessendata', is based on the US company Palantir's Gotham

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[1533] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

[1534] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

[1535] Louisa Well, *Algorithmwatch Automating Society Report - Germany* (2020), https://automatingsociety.algorithmwatch.org/report2020/germany/

[1536] Dominik Gerstner, *Predictive Policing in the Context of Residential Burglary: An Empirical Illustration on the Basis of a Pilot Project in Baden-Württemberg*, Germany, European Journal for Security Research, 3 (2018), https://doi.org/10.1007/s41125-018-0033-0

[1537] Louisa Well, Algorithmwatch Automating Society Report - Germany (2020), https://automatingsociety.algorithmwatch.org/report2020/germany/

[1538] Police North Rhine-Westphalia, *Projekt SKALA* (Jun. 8, 2018) https://polizei.nrw/artikel/projekt-skala-predictive-policing-in-nrw-ergebnisse

program and its use has been met with public criticism. The Court will likely take until well into 2023 to rule on Hessendata's constitutionality.[1539] In the EU AI Act negotiations, Germany called for a ban on systems that would replace human judges in crime and recidivism risk assessment as well, but it also pushed for exemptions for law enforcement in other areas.[1540]

Lethal Autonomous Weapons

The German government's 2018 coalition agreement stated that it "rejects autonomous weapon systems devoid of human control" and called for a global ban.[1541] Also in 2018, in cooperation with the French government, the German government published a joint statement on Lethal Autonomous Weapons at the Meeting of the Group of Governmental Experts on Lethal Autonomous Weapons Systems (LAWS). They wrote, "At the heart of our proposal is the recommendation for a political declaration, which should affirm that State parties share the conviction that humans should continue to be able to make ultimate decisions with regard to the use of lethal force and should continue to exert sufficient control over lethal weapons systems they use."[1542]

In 2019, the then-Foreign Minister of Germany, Heiko Maas, reasserted the German position as being in favor of a total ban on Lethal Autonomous Weapons Systems,[1543] and the Foreign Ministry organized a virtual forum on LAWS in 2020 to move closer to a "collective normative

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[1539] Ben Knight, _Germany: Police surveillance software a legal headache_ (Dec. 12, 2022), https://www.dw.com/en/germany-police-surveillance-software-a-legal-headache/a-64186870

[1540] Luca Bertuzzi, _Germany could become MEPs' ally in AI Act negotiations_ (Jan. 10, 2023), https://www.euractiv.com/section/artificial-intelligence/news/germany-could-become-meps-ally-in-ai-act-negotiations/

[1541] Konrad Adenauer Stiftung Europe, _A New Awakening for Europe. A New Dynamic for Germany. A New Solidarity for Our Country: Coalition Agreement between CDU, CSU, and SPD_ (2018), https://www.kas.de/c/document_library/get_file?uuid=bd41f012-1a71-9129-8170-8189a1d06757&groupId=284153

[1542] Permanent Representation of the Federal Republic of Germany to the Conference on Disarmament in Geneva & Représentation Permanente de la France auprès de la Conférence du Désarmement, Meeting of the Group of Governmental Experts on Lethal Autonomous Weapons Systems, _Statement by France and Germany_ (Apr. 2018), http://perma.cc/2FQB-W8FX); US Library of Congress, _Regulation of Artificial Intelligence in Selected Jurisdictions_ (Jan. 2019), https://www.loc.gov/law/help/artificial-intelligence/regulation-artificial-intelligence.pdf

[1543] Federal Foreign Office, _Foreign Minister Maas on agreement of guiding principles relating to the use of fully autonomous weapons systems_ (Nov. 15, 2019), https://www.auswaertiges-amt.de/en/newsroom/news/maas-autonomous-weapons-systems/2277194

framework."[1544] Observers have argued, however, that the 2021 German coalition agreement is "ambivalent about legally binding action on autonomous weapons" and that it merely "rejects" these systems instead of pushing for regulation.[1545]

The new German government's 2021 coalition agreement states, "We reject lethal autonomous weapon systems that are completely removed from human control. We actively promote their international outlawing. We want the peaceful use of space and cyberspace. For weapons technology developments in biotech, hypersonics, space, cyber and AI, we will take early arms control initiatives. We want to contribute to strengthening norms for responsible state behavior in cyberspace."[1546]

In October 2022, Germany was one of 70 states that endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an international framework of rules and constraints.[1547] In this joint statement, States declared that they "are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[1548]

In February 2023, Germany participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Germany, together with other countries, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in

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[1544] Federal Foreign Office, *Forum on Lethal Autonomous Weapons Systems* (Apr. 2, 2020), https://www.auswaertiges-amt.de/en/aussenpolitik/themen/forum-laws/2330682

[1545] Autonomousweapons.org, *New German "Traffic Light Coalition" Ambivalent About Legally Binding Action on Autonomous Weapons* (Nov. 26, 2021), https://autonomousweapons.org/new-german-traffic-light-coalition-ambivalent-about-legally-binding-action-on-autonomous-weapons/

[1546] Koalitionsvertrag 2021, *Mehr Fortschritt wagen* 18, 145, https://www.bundesregierung.de/resource/blob/974430/1990812/04221173eef9a6720059cc353d759a2b/2021-12-10-koav2021-data.pdf

[1547] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly,* (2022) https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

[1548] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

the military domain.[1549] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[1550]

Human Rights

According to Freedom House, Germany is one of the top countries in the world for the protection of political rights and civil liberties, receiving a score of 94/100, unchanged from the previous year.[1551] Freedom House reports that, "Germany is a representative democracy with a vibrant political culture and civil society. Political rights and civil liberties are largely assured both in law and practice." [1552]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are

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[1549] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release,
https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

[1550] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[1551] Freedom House, *Freedom in the World 2022– Germany* (2022),
https://freedomhouse.org/country/germany/freedom-world/2022

[1552] Freedom House, *Freedom in the World 2021 – Germany* (2021),
https://freedomhouse.org/country/germany/freedom-world/2021

experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[1553]

OECD / G20 AI Principles

Germany is a member of the OECD and endorsed the OECD and the G20 AI Principles.

In 2020, Germany joined 14 other countries to announce the Global Partnership on Artificial Intelligence to "support the responsible and human-centric development and use of AI in a manner consistent with human rights, fundamental freedoms, and our shared democratic values."[1554] In 2021, the OECD noted several examples of Germany's implementation of the OECD AI Principles, including guidelines for trustworthy AI that are largely in line with the OECD AI Principles (Germany's Data Ethics Commission ethics recommendations), the establishment of a dedicated body to coordinate and evaluate AI strategies, and the development of partnerships between public and private research organizations.[1555]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Germany is a signatory to the UNESCO Recommendation on the Ethics of Artificial Intelligence. While its AI plan was published before the development of the UNESCO Recommendation, the German UNESCO Commission released a report in 2022 which showed that Germany "has taken important steps to regulate AI in a way that corresponds to human rights and the public good," although more work is needed in some areas.[1556]

[1553] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1554] Federal Ministry for Economic Affairs and Energy & Federal Ministry for Social Affairs and Work, *Joint Press Release: Germany is a founding Member of the Global Partnership on Artificial Intelligence* (June 15, 2020), https://www.bmwi.de/Redaktion/EN/Pressemitteilungen/2020/20200615-germany-is-a-founding-member-of-the-global-partnership-on-artificial-intelligence.html

[1555] OECD, *State of Implementation of the OECD AI Principles Insights from National AI Policies* 10, 14, 15, 65 (June 2021), https://www.oecd.org/digital/state-of-implementation-of-the-oecd-ai-principles-1cd40c44-en.htm

[1556] UNESCO, *UNESCO-Empfehlung zur Ethik der Künstlichen Intelligenz in Deutschland* (Mar. 21, 2022), https://www.unesco.de/wissen/wissenschaft/ethik-und-

Evaluation

       Germany's national AI strategy emphasizes AI ethics, and Germany has called for regulating AI at EU level. However, while generally in favor of regulation and transparency, the German position on the risks of AI systems (particularly on biometric identification and predictive policing) is difficult to pin down, as different ministries, coalition members, and state governments may have different priorities and opinions.[1557] The fact that the Federal Data Protection Commissioner has not endorsed the 2022 Resolution of the Global Privacy Assembly on Facial Recognition is also of concern. As Germany recently endorsed the UNESCO Recommendation on the Ethics of AI, it remains to be seen which concrete steps Germany will take to implement it in practice.

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philosophie/studie-umsetzung-ki-ethik-empfehlung#:~:text=März%202022-,UNESCO%2DEmpfehlung%20zur%20Ethik%20der%20Künstlichen%20Intelligenz%20in%20Deutschland,zur%20Ethik%20der%20Künstlichen%20Intelligenz

[1557] Luca Bertuzzi, *Germany could become MEPs' ally in AI Act negotiations* (Jan. 10, 2023), https://www.euractiv.com/section/artificial-intelligence/news/germany-could-become-meps-ally-in-ai-act-negotiations/

Ghana

National AI Strategy

The Future Society (TFS) announced that "in October 2022, TFS delivered the Republic of Ghana National Artificial Intelligence Strategy 2023-2033 with our partners: Ghana's Ministry of Communications and Digitalisation and Data Protection Commission, GIZ FAIR Forward and Smart Africa." However, no information is available so far about the Strategy itself or its validation by Ghana's government.

As member of the African Union (AU), Ghana is working to align the country efforts to the vision of the Union with regard to its Digital Transformation Strategy[1558] as well as its Artificial Intelligence Continental Strategy for Africa. Ghana's Ministry of Communications and Digitalization participated in a consultative workshop organized by the AU High-Level Panel on Emerging Technologies (APET).[1559] The APET discussions aimed at gathering input about "myths, challenges, and benefits of Artificial Intelligence (AI) in Africa," urging African countries to invest in AI literacy, cooperate internationally for AI innovation, enhance data protection, invest in infrastructure, and review policy implementation frameworks governing AI.

Public Participation

In Ghana, stakeholder engagement for public policies is an established practice, led by the Ministry of Communication and Digitalization (MoCD). Annual budgets support the planning sessions to formulation of new policies.[1560] The stakeholder engagements taking place for Ghana's Digital Economy Policy at the Accra Digital Centre in November 2022.[1561] Minister Ursula Owusu-Ekuful highlighted the significance of the ministerial consultation as a means to ensure inclusiveness and comprehensiveness of the policy, covering data

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[1558] African Union. *The Digital Transformation Strategy for Africa (2020-2030).* https://au.int/sites/default/files/documents/38507-doc-dts-english.pdf

[1559] AUDA-NEPAD. *The African Union Artificial Intelligence Continental Strategy for Africa* (May 30, 2022) https://www.nepad.org/news/african-union-artificial-intelligence-continental-strategy-africa

[1560]Ministry of Communication and Digitalization, *Programme Based Budget Estimates for 2022* pp. 11 and 28, https://mofep.gov.gh/sites/default/files/pbb-estimates/2022/2022-PBB-MOCD.pdf

[1561] Graphic Online. *Ministry Develops Policy for Digital Economy* (Dec. 13, 2022), https://www.graphic.com.gh/business/business-news/ministry-develops-policy-for-digital-economy.html

governance, emerging tech and regulation, data classification, data sharing and open data.[1562]

The National AI Strategy is the result of the collaborative efforts of Ghana's Ministry of Communications and Digitalisation, Ghana's Data Protection Commission, GIZ FAIR Forward,[1563] Smart Africa[1564] and The Future Society.[1565]

In total, the strategy is based on 40+ local stakeholder consultations, in-depth AI policy landscape mapping and SWOT Analysis of Ghana's AI ecosystem, and 4 high-level public sector consultation workshops to iterate the mission and vision, recommendations and action plan, and a detailed booklet of AI use cases across key sectors.[1566]

For example, in May 2022, The Future Society co-led a stakeholder consultation workshop in Ghana to support the development of Ghana's AI strategy.[1567] The workshop sessions addressed AI governance and frameworks, policies, implementation plans, SWOT, local AI ecosystems, AI ethical guidelines and recommendations for the establishment of program offices to drive implementation. In August 2022, The Future Society together with Ghana's Data Protection Commission, GIZ FAIR Forward and Smart Africa held the third high-level public sector consultation workshop with private and public sector, academia and civil society, to discuss the establishment of precautionary guardrails for AI across sectors.[1568]

[1562] The Future Society. *Stakeholder Consultation Workshops Drive Insights for National AI Strategies in Tunisia and Ghana* (Jun 9, 2022), https://thefuturesociety.org/stakeholder-consultation-workshops-drive-insights-for-national-ai-strategies-in-tunisia-and-ghana/

[1563] Digital Global, *Open Data for AI* (May 2022), https://www.bmz-digital.global/en/overview-of-initiatives/fair-forward/

[1564] Smart Africa, *SADA Launches its National Digital Academy in Ghana* (May 20, 2022), https://smartafrica.org

[1565] The Future Society, *Aligning Artificial Intelligence Through Better Governance* (Jun. 9, 2022), https://thefuturesociety.org

[1566] The Future Society, *National AI Strategies for Inclusive and Sustainable Development* (Apr. 30, 2022), https://thefuturesociety.org/2022/04/03/policies-ai-sustainable-development/

[1567] The Future Society, *Stakeholder Consultation Workshops Drive Insights for National AI Strategies in Tunisia and Ghana* (Jun. 9, 2022), https://thefuturesociety.org/events/stakeholder-consultation-workshops-for-national-ai-strategies-in-tunisia-and-ghana/

[1568] The Future Society, *Public Sector Consultation Workshop for Ghana's National AI Strategy* (Aug 2022), https://thefuturesociety.org/stakeholder-consultation-workshops-drive-insights-for-national-ai-strategies-in-tunisia-and-ghana/

Data Protection

In 2012, Ghana enacted the Data Protection Act.[1569] Section 41 of the Data Protection Act provides for the right of the data subject to object for decisions that significantly affect him to not be based solely on automated processing of personal data.

The Data Protection Act establishes the Data Protection Commission,[1570] which is an independent statutory body in charge of enforcing the Data Protection Act and protecting data subjects' rights. Despite being a member of the Global Privacy Assembly since 2014, the Data Protection Commission has not endorsed the 2018 GPA resolution on AI and Ethics,[1571] the 2020 GPA Resolution on AI and Accountability,[1572] or the 2022 Resolution on Facial Recognition Technology[1573]

Ghana is one of five African countries that ratified (in 2019) the African Union Convention on Cyber Security and Personal Data Protection (Malabo Convention).[1574] The Convention, drafted in 2011 and adopted in 2014 is an initial step to the establishment of a regulatory framework for data protection in the African region.[1575] The agreement emphasized that each country is to develop its own legislative framework, observing the

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[1569] Data Protection Commission, *The Data Protection Act (Act 843)*, https://www.dataprotection.org.gh/data-protection/data-protection-acts-2012

[1570] Data Protection Commission, *Get to Know What We Do,* https://www.dataprotection.org.gh/about-us/the-commission

[1571] International Conference of Data Protection & Privacy Commissioners, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1572] Global Privacy Assembly (GPA), *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[1573] Global Privacy Assembly (GPA), *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[1574] African Union. *List of Countries which have signed, ratified/acceded to the African Union Convention on Cyber Security and Personal Data Protection* (Mar 25, 2022), https://au.int/sites/default/files/treaties/29560-sl-AFRICAN_UNION_CONVENTION_ON_CYBER_SECURITY_AND_PERSONAL_DATA_PROTECTION.pdf

[1575] African Union, *African Union Convention on Cybersecurity (Malabo Convention)* (Jun. 27, 2014), https://au.int/en/treaties/african-union-convention-cyber-security-and-personal-data-protection

African Charter on Human and People's Rights, respecting privacy and freedoms while enhancing the promotion and development of ICT.[1576]

Algorithmic Transparency

The expansive presence of social media and use of online tools in African countries makes regulating algorithmic transparency the most critical to protect against misuse.[1577] The Ghana Data Protection Act of 2012 establishes the principle of "fair and transparent processing of a data subject's personal data"[1578] and provides that subjects need to be informed by the data processor when a decision has been made by automated means. Section 17 of the DPA sets out principles that data controllers must adhere to when processing personal data and more particularly Section 17 (f) provides for openness as a principle for processing personal data. This section could be interpreted as including algorithmic transparency but it would need confirmation either by the Data Protection Commission or by court. The Malabo Convention does not provide for algorithmic transparency. They both would need to be revised in order to explicitly mention the right to algorithmic transparency.

A study by International Telecommunications Society (ITS) on the use of artificial intelligence in the Fintech industry of Ghana and three other African countries found gender bias in financial services decisions. A lack of algorithmic transparency and explainability were areas of concern, contributing to the inability to make institutions accountable for biased decisions.[1579]

Facial Recognition

Practices of surveillance and use of facial recognition are of concern in the country. Ghana's National Service Scheme has implemented facial recognition in its registration process, in order to prevent fraud and identity thefts in the receipt of payments to public employees. The deployment

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[1576] CCDCOE, *Mixed Feedback on the African Union Convention on Cyber Security and Personal Data Protection*, https://ccdcoe.org/incyder-articles/mixed-feedback-on-the-african-union-convention-on-cyber-security-and-personal-data-protection/

[1577] African Policy Research Institute (APRI), *AI in Africa: Key Concerns and Policy Considerations for the Future of the Continent* (May 30, 2022), https://afripoli.org/ai-in-africa-key-concerns-and-policy-considerations-for-the-future-of-the-continent

[1578] Data Protection Commission, *The Data Protection Act, 2012 (ACT 843),* https://www.dataprotection.org.gh/media/attachments/2021/11/05/data-protection-act-2012-act-843.pdf

[1579] DigWatch, *A gender perspective on the use of artificial intelligence in Africa's fintech industry: Case studies from South Africa, Kenya, Nigeria and Ghana*, https://researchictafrica.net/wp/wp-content/uploads/2021/06/Ahmed.pdf

which included testing, staff training sessions and public awareness, has achieved its desired outcome according to government reports.[1580]

Credit Scoring

In 2019, the use of citizen scoring mechanisms in Ghana by the National Identification Authority was subject of a study by Algorithm Watch. It resulted that six biometric databases owned by public authorities provide citizen scores, including credit reference scores issued by the Credit Reference Bureau.[1581]

Biometrics

Ghanaian Police Service has adopted biometric devices, as part of their strategy of digitization with the objective to "dramatically improve policing in Ghana."[1582] The police use biometrics to check wanted individuals against the National Identification Authority's (NIA) database. The process started in 2017 with the issuing of the new Ghana card, aimed to centralize the identity management systems.[1583] The NIA biometric database amounts to 17 million records, including Ghana ID card, car registration and insurance information allowing for identification in real time with biometric devices.

A report by Privacy International identified practices of surveillance in Ghana during the phase of emergency response to the COVID pandemic.[1584] The PanaBIOS app endorsed by the African Union

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[1580] BiometricUpdate, *Ghana national service officials praise face biometrics onboarding* (Nov. 23, 2022), https://www.biometricupdate.com/202211/ghana-national-service-officials-praise-face-biometrics-onboarding

[1581] Algorithm Watch, *Identity-Management and Citizen Scoring in Ghana, Rwanda, Tunisia, Uganda, Zimbabwe and China* (Oct 21, 2019), https://algorithmwatch.org/en/wp-content/uploads/2019/10/Identity-management-and-citizen-scoring-in-Ghana-Rwanda-Tunesia-Uganda-Zimbabwe-and-China-report-by-AlgorithmWatch-2019.pdf

[1582] BiometricUpdate, *Ghana Police get over 100 biometric devices for fields checks against database* (Jan. 2, 2023), https://www.biometricupdate.com/202301/ghana-police-get-over-100-biometric-devices-for-field-checks-against-national-database

[1583] Algorithm Watch. *Identity-Management and Citizen Scoring in Ghana, Rwanda, Tunisia, Uganda, Zimbabwe and China* (Oct 21, 2019), https://algorithmwatch.org/en/wp-content/uploads/2019/10/Identity-management-and-citizen-scoring-in-Ghana-Rwanda-Tunesia-Uganda-Zimbabwe-and-China-report-by-AlgorithmWatch-2019.pdf

[1584] Privacy International (PI), *Under Surveillance: (Mis)use of Technologies in Emergency Reponses. Global lessons from the COVID-19 pandemic* (Dec 2022), https://privacyinternational.org/report/5003/under-surveillance-misuse-technologies-emergency-responses-global-lessons-covid-19

and deployed by the Ghanaian border enforcement, used algorithms to track and trace individuals that might pose a health threat.

EdTech

Ghana was the subject of a study by Human Rights Watch about the use of government-endorsed Ed Tech tools for online learning during the COVID-19 pandemic across 49 countries.[1585] The findings show that the government of Ghana endorsed platforms that have the capability to collect AAID (Android Advertising ID) and identify, tag and track users, including children. The AAID is a feature used for user profiling and ads use cases. Further, learning apps endorsed by Ghana tracked and collected data from children and teachers for advertising and revenue purpose, transmitting data to AdTech companies. For Ghana, the apps in this category were Edmodo and Ghana electronic Library. Ghana was one of the only nine countries that disclosed in their privacy policies that they collected and used children data for "behavioral advertising purposes."[1586]

Lethal Autonomous Weapons Systems

Ghana has not acceded to the Convention on Certain Conventional Weapons (CCW). However, the country has participated in several CCW meetings since 2014.[1587] In a statement to the 2016 CCW informal meeting of experts on LAWS, Ghana called for the "promotion and preservation of human dignity for humanity as a whole (…) In our view, fully automated lethal systems must be proscribed before they are fully developed."[1588]
Ghana is a member of two groups that support the negotiation of a legally-binding instrument on autonomous weapons systems: The African Group within the United Nations and the Non-Aligned Movement. The African Group issued a statement in 2021 CCW calling on the "ethical, legal, moral and technical questions" in the use of autonomous weapons systems and

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[1585] Human Rights Watch, *How Dare They Peep into My Private Life?* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[1586] Human Rights Watch, *How Dare They Peep into My Private Life?* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[1587] Automated Research, *State Positions. Ghana*, https://automatedresearch.org/news/state_position/ghana/

[1588] *Statement by Ghana to the Convention on Conventional Weapons informal meeting of experts on lethal autonomous weapons systems* (Apr. 2016), https://www.reachingcriticalwill.org/images/documents/Disarmament-fora/ccw/2015/meeting-experts-laws/statements/16April_Ghana.pdf

urging concrete policy recommendations, including prohibitions and regulations.[1589]

Human Rights

Ghana is one of the early signatories of the Universal Declaration of Human Rights (UDHR)[1590] and has enshrined the key provisions of the UDHR in its Constitution. The 1992 Constitution of Ghana[1591] provides for the protection of fundamental human rights and freedoms. The UDHR provides for the right to privacy under Article 12. The right to privacy is guaranteed under Article 18 of the Constitution of Ghana 1. The constitution states, "No person shall be subjected to interference with the privacy of his home, property, correspondence or communication except in accordance with law and as may be necessary in a free and democratic society for public safety or economic well-being of the country, for the protection of health or morals, for the prevention of disorder or crime or for the protection of rights and freedoms of others."

Ghana is a party to the African Charter on Human and Peoples' Rights. In its 2019 Declaration of Principles on Freedom of Expression and Access to Information in Africa, the African Commission on Human and Peoples' Rights (ACHPR), in charge of interpreting the Charter,[1592] called on states to ensure that the "development, use and application of AI, algorithms and other similar technologies by internet intermediaries are compatible with international human rights law and standards, and do not infringe on the rights to freedom of expression, access to information and other human rights."[1593]

In February 2021, the ACHPR adopted Resolution 473 having recognized that emerging technologies such as AI have a bearing on the enjoyment of human rights under the African Charter on Human and Peoples' Rights (the African Charter).[1594] The ACHPR called on state parties to the African Charter, Ghana included, to:

[1589] *Statement by the African Group, CCW Group of Governmental Experts meeting on LAWS* (Dec 3, 2021), http://149.202.215.129:8080/s2t/UNOG/LAWS3-03-12-2021-AM_mp3_en.html

[1590] *Universal Declaration of Human Rights*, https://www.un.org/en/about-us/universal-declaration-of-human-rights

[1591] Constitution of Ghana (1992), https://www.constituteproject.org/constitution/Ghana_1996.pdf

[1592] See Articles 30 and 45(3) of the African Charter on Human and Peoples' Rights.

[1593] Diplo, *Artificial intelligence in Africa: Continental policies and initiatives*, https://www.diplomacy.edu/resource/report-stronger-digital-voices-from-africa/ai-africa-continental-policies/

[1594] African Commission on Human and Peoples' Rights, *Resolution 473 on the need to undertake a Study on human and peoples' rights and artificial intelligence (AI), robotics*

- Ensure that the development and use of AI, robotics and other new and emerging technologies is compatible with the rights and duties in the African Charter and other regional and international human rights instruments, in order to uphold human dignity, privacy, equality, non-discrimination, inclusion, diversity, safety, fairness, transparency, accountability and economic development as underlying principles that guide the development and use of AI, robotics and other new and emerging technologies.
- Ensure transparency in the use of AI technologies, robotics and other new and emerging technologies and that decisions made in the use of AI technologies, robotics and other new and emerging technologies are easily understandable to those affected by such decisions.
- Work towards a comprehensive legal and ethical governance framework for AI technologies, robotics and other new and emerging technologies so as to ensure compliance with the African Charter and other regional treaties.

In September 2022, the Special Rapporteur on Freedom of Expression and Access to Information in Africa, Ourveena Geeresha Topsy-Sonoo, recalled that, with Resolution 473, the Commission, "recognizing the need to better understand the legal, ethical, safety and security opportunities and challenges raised by AI, robotics and other new and emerging technologies in Africa, observed in its Resolution (…) that new and emerging technologies present both opportunities and perils for the promotion and protection of human and peoples' rights in Africa. The Commission further observed that whilst making government services and information digital enhances transparency and accessibility and artificial intelligence allows for a number of benefits in the society, it has to be accompanied by human rights considerations and a bridging of the digital divide." The Special Rapporteur also declared that "State Parties are encouraged to develop domestic legal frameworks regulating AI and e-governance; ensure these technologies are developed and used

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and other new and emerging technologies in Africa (Feb. 25, 2021), https://www.achpr.org/sessions/resolutions?id=504; See University of Pretoria, *Centre for Human Rights welcomes African Commission resolution on emerging technologies*, https://www.chr.up.ac.za/tech4rights-news/2451-press-statement-centre-for-human-rights-welcomes-african-commission-resolution-on-emerging-technologies; see also, CAIDP, *African Commission on Human and People's Rights Resolution 473 Statement of The Center for AI and Digital Policy (CAIDP)* (Apr. 5, 2021), https://www.caidp.org/app/download/8308244063/CAIDP-ACHPR-Res473-04052021.pdf?t=1637335261

transparently; and ensure that imported AI and e-governance systems align with the African Charter."[1595]

According to the Freedom House's 2022 Freedom in the World report,[1596] Ghana is rated Free with a score of 80/100 on the Global Freedom Score. Ghana is rated *Partly Free* with a score of 64/100 on the Internet Freedom Score. According to Freedom House, Ghana political rights and civil liberties are backed by a stable democracy, with competitive multi-party elections since 1992 and peaceful transfer of power between the two major political parties. Areas of weakness concern judicial independence and the rule of law. Corruption also poses challenges to the effective performance of the government. The report also highlights political violence as a growing concern.

OECD / G20 AI Principles

Ghana is not a member of the OECD or the G20, and has not endorsed the OECD / G20 AI principles.[1597] However, Ghana is a member of the OECD Development Centre since 2015, collaborating with members and non-member countries in policy to improve living conditions in developing and emerging economies.[1598] In the development of Ghana's national AI strategy, the government of Ghana and The Future Society collaborated with the OECD AI Policy Observatory among other organizations that champion human centric AI.[1599]

[1595] African Commission on Human and Peoples' Rights, *Press Statement by the Special Rapporteur on Freedom of Expression and Access to Information in Africa, on the Occasion of International Day for Universal Access to Information* (Sept. 28, 2022), https://achpr.au.int/en/news/press-releases/2022-09-28/special-rapporteur-freedom-expression-access-international-day

[1596]*Freedom House, Ghana: Freedom in the World 2022 Country Report* https://freedomhouse.org/country/ghana/freedom-world/2022

[1597] OECD, *Forty-two countries adopt new OECD Principles on Artificial intelligence* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[1598] OECD, *Ghana becomes the 50th member of the OECD Development Centre* (Oct. 6, 2015), https://www.oecd.org/development/ghana-joins-oecd-development-centre.htm

[1599] The Future Society, *National AI Strategies for Inclusive and Sustainable Development* (Apr. 30, 2022), https://thefuturesociety.org/2022/04/03/policies-ai-sustainable-development/

UNESCO Recommendation on the Ethics of Artificial Intelligence

       Ghana is one of the 193 member countries of UNESCO that adopted the UNESCO Recommendation on the Ethics of AI.[1600] It remains to be seen whether the National AI Strategy will duly take into account the UNESCO Recommendation.

Evaluation

       Ghana is progressing with the formulation of its national AI strategy. The country has endorsed the UNESCO Recommendation on the Ethics of AI and is involved in the African Union' work on a Continental AI Strategy for Africa, which is to be hoped will be reflected in the final Ghanian National AI Strategy.

       Ghana benefits from an independent Data Protection Commission and developed its own data protection legal framework and also ratified the Malabo Convention. Amid the rapid deployment of AI in the country, a step further would consist in modernizing the Data Protection Act to include the right to algorithmic transparency. The regulation of practices of biometrics identification, facial recognition, and individual scoring is essential to realize the benefits of AI for the Ghanaian society.

[1600] UNESCO, *UNESCO Member States Adopt the First Ever Global Agreement on the Ethics of Artificial Intelligence* (Apr. 21, 2022) https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence

Hong Kong

National AI Strategy

Hong Kong is making significant advances in AI development and policy implementation through the issuance of guidelines, policies, and AI technology applications in different sectors. Although this special administrative region[1601] largely controlled by China does not have a national strategy for the regulation of AI, there exists a guideline on AI to guide organizations in adopting accountable and ethical processes. This guideline, issued by the Office of the Privacy Commissioner for Personal Data (PCPD), contains statements on the ethical development and use of AI, which are aimed at guiding the adherence to personal data and privacy requirements by organizations within the region.[1602] The PCPD Ethical AI principles have been expanded to twelve principles from previously seven. Two of the twelve, namely (1) Transparency and Interpretability and (2) Reliability, Robustness, and Security are categorized as "Performance Principles." The rest are categorized as "Generalized Principles" that include the following: (1) Fairness, (2) Diversity and Inclusion, (3) Human Oversight, (4) Lawfulness and Compliance, (5) Data Privacy, (6) Safety, (7) Accountability, (8) Beneficial AI, (9) Cooperation and Openness and (10) Sustainability and Just Transition.[1603] The PCPD guideline also provides practical steps to help organizations in managing their AI systems, covered under four major areas namely:
- Establishing AI strategy and governance;
- Conducting risk assessment and human oversight;
- Executing development of AI models and managing overall AI systems; and
- Fostering communication and engagement with stakeholders.

Some sectoral initiatives are also of relevance. In 2019, the Hong Kong Monetary Authority (HKMA) published a 12-principle guideline

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[1601] Referred to as the Hong Kong Special Administrative Region (HKSAR).

[1602] Hong Kong Office of the Privacy Commissioner for Personal Data, *Guidance on Ethical Development and Use of AI* (Aug. 18, 2021), https://www.pcpd.org.hk/english/resources_centre/publications/files/guidance_ethical_e.pdf and PCPD, *Inspection Report on Customers' Personal Data Systems* (Aug. 18, 2021), https://www.pcpd.org.hk/english/enforcement/commissioners_findings/files/r21_3099_e.pdf

[1603] Hong Kong Office of the Government Chief Information Officer, *Ethical Artificial Intelligence Framework* (Sept. 2022), https://www.ogcio.gov.hk/en/our_work/infrastructure/methodology/ethical_ai_framework/

detailing adherence items for banks that engage in designing and implementing AI and big data analytics applications.[1604] The issuance of these principles aimed to ensure some form of safeguards for banks as they deal with the increased need for AI technology adoption in Hong Kong's vibrant financial sector. The Hong Kong Institute for Monetary and Financial Research (HKIMR) also released an applied research report titled "Artificial Intelligence and Big Data in the Financial Services Industry: A Regional Perspective and Strategies for Talent Development." The report describes the transformation of the financial services industry using artificial intelligence (AI) and big data (BD) technologies. It highlights the role of talent in integrating these new technologies into the financial services industry. The report also explores market participants' views on AI adoption and the demand for talent in major Asia-Pacific financial centers. It also refers to their views on promoting talent development and reviews the relevant initiatives implemented internationally and in Hong Kong. The report suggests enriching the talent pool by narrowing the talent gap, supporting recruitment, and fostering development.[1605]

Hong Kong's technology development sector, specifically AI, is seeing increased integration with mainland China. In her 2021 policy address, the Chief Executive of Hong Kong, Carrie Lam stated that "the developments of Hong Kong and our country are closely related. Only by leveraging the Central Government's policies in support of Hong Kong can we give full play to our unique strengths, which will, in turn, bring continuous impetus to our economy."[1606] This, coupled with the passage of the Hong Kong National Security Law in 2020 by China's top legislature,[1607] cast some doubts on the future of the "One Country, Two Systems" model for the governance of Hong Kong.[1608]

[1604] DLA Piper, *Hong Kong banks must follow new AI framework* (November 2019), https://www.lexology.com/library/detail.aspx?g=aff8347f-447c-4155-801b-8174a5d4668e

[1605] Hong Kong Institute for Monetary and Financial Research (HKIMR), *Artificial Intelligence and Big Data in the Financial Services Industry: A Regional Perspective and Strategies for Talent Development* (2021), https://www.aof.org.hk/docs/default-source/hkimr/applied-research-report/aibdrep.pdf

[1606] *The Chief Executive's 2021 Address, https://www.policyaddress.gov.hk/2021/eng/p38.html*

[1607] Hong Kong Free Press, *Official English translation of the Hong Kong national security law* (July 1, 2020), https://hongkongfp.com/2020/07/01/in-full-english-translation-of-the-hong-kong-national-security-law/

[1608] William Overholt, *Hong Kong: The Rise and Fall of "One Country, Two Systems* (Dec. 2019), https://ash.harvard.edu/files/ash/files/overholt_hong_kong_paper_final.pdf

In September 2022, the Hong Kong Consumer Council released its first-ever study on the use of AI in e-commerce in Hong Kong, titled "Fostering Consumer Trust – Ethical AI in Hong Kong." The study identified opinions and challenges by consumers and traders when they use or develop AI, reviewed the objectives and policies of AI governance adopted by different countries, and listened to the stakeholder views. The Council made a series of recommendations for the healthy development of AI in e-commerce based on complying with ethical standards and balancing the interests of parties, including safeguarding consumer rights.[1609]

Also in September 2022, the Hong Kong Office of the Government Chief Information Officer developed the Ethical AI Framework for internal adoption within the Government regarding AI and big data analytics applications. The Ethical AI Framework will assist the government bureaus and departments in adopting AI and big data analytics and incorporating ethical elements in the planning, design, and implementation of IT projects or services, and it consists of ethical principles, practices, and assessment of AI.[1610]

Public Participation

Hong Kong does not have a structured process for public participation in the development of AI policy, although some AI and digital technology projects have sought the engagement of citizens as part of their roll-out plans. For instance, the Hong Kong government embarked on a two-month public engagement drive to gather and understand the views of citizens on the digital identity project they embarked on.[1611]

Data Protection and Algorithmic Transparency

Hong Kong passed the Personal Data (Privacy) Ordinance (PDPO) in 1995, which instilled a principles-based approach to data privacy and established the Office of the Privacy Commissioner for Personal Data (PCPD) as an independent data privacy regulator.

[1609] Hong Kong Consumer Council, *Fostering Consumer Trust – Ethical AI in Hong Kong* (Sept. 8, 2022), https://www.consumer.org.hk/en/advocacy/study-report/ai_in_ecommerce

[1610] Hong Kong Office of the Government Chief Information Officer, *Ethical Artificial Intelligence Framework* (Sept. 2022), https://www.ogcio.gov.hk/en/our_work/infrastructure/methodology/ethical_ai_framework/

[1611] Medha Basu, *Exclusive: Hong Kong's Vision for Artificial Intelligence,* https://govinsider.asia/smart-gov/exclusive-hong-kongs-vision-for-artificial-intelligence/

The PDPO saw amendments in 2012[1612] and 2021[1613] to address direct marketing and criminalize doxxing, respectively. Allowing the PCPD to conduct investigations without a warrant, press charges independently, force content to be taken down, and charge non-compliant internet platforms, there are concerns that the doxxing amendment will be used to restrict dissenting opinions.[1614] The PDPO applies to both private and public data usage. However, it allows for specific exemptions for criminal investigations, the performance of judicial functions, security and defense, and emergency situations.[1615] In the context of the recent Hong Kong National Security Law and associated protests, the broader implications of these exemptions on human rights are less clear. For example, police can request content be taken down or have online platforms provide information about users, although it's unclear if this information can or will be shared with mainland China.[1616]

The PCPD has been an active participant in international discussions on data protection, algorithmic transparency, and many other key issues in the use of AI, especially in the General Privacy Assembly.

The PCPD was a signatory to the 2018 Global Privacy Assembly (GPA) Declaration on Ethics and Data Protection in Artificial Intelligence. In November 2020, the PCPD sponsored a resolution and played a key role in encouraging greater accountability in the development and use of AI to the Global Privacy Assembly (GPA) called the 2020 GPA Resolution on Accountability in the Development and Use of Artificial Intelligence. This sponsored resolution was in response to the GPA's adopted Declaration on

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[1612] Hong Kong Office of the Privacy Commissioner for Personal Data, *Amendments 2012*,
https://www.pcpd.org.hk/english/data_privacy_law/amendments_2012/amendment_2012.html

[1613] Hong Kong Office of the Privacy Commissioner for Personal Data, *The Personal Data (Privacy) (Amendment) Ordinance 2021 Takes Effect Today to Criminalise Doxxing Acts* (Oct. 8, 2021),
https://www.pcpd.org.hk/english/news_events/media_statements/press_20211008.html

[1614] Law Society of Hong Kong, *Proposed Doxxing Offence - Personal Data (Privacy) (Amendment) Bill 2021* (Aug. 18, 2021), https://www.hklawsoc.org.hk/-/media/HKLS/pub_e/news/submissions/20210818.pdf

[1615] Hong Kong e-legislation, *Cap. 486 Personal Data (Privacy) Ordinance, Part 8, Exemptions*, *https://www.elegislation.gov.hk/hk/cap486*

[1616] The Government of the Hong Kong Special Administrative Region, *Implementation Rules for Article 43 of the Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region Gazetted* (July 6, 2020), https://www.info.gov.hk/gia/general/202007/06/P2020070600784.htm

Ethics and Data Protection in Artificial Intelligence two years earlier.[1617] The resolution by the PCPD called for greater accountability as it relates to the measures below:[1618]

- assessing the potential impact on human rights (including privacy rights) before the development and/or use of AI;
- testing the robustness, reliability, accuracy, and data security of AI systems before putting them into use; and
- disclosing the results of the privacy and human rights impact assessment of AI, and the use of AI, the data being used and the logic involved to enhance transparency.

In the 44th General Privacy Assembly held in October 2022, Hong Kong's PCPD co-sponsored the Draft Resolution on International Cooperation Capacity Building for Improving Cybersecurity Regulation and Understanding Cyber Incident Harms.[1619] However, the PCPD did not endorse the 2022 GPA Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology.[1620]

The AI Guidance presented by the PCPD makes several recommendations to increase transparency around the use of AI, including "putting in controls that allow human oversight and intervention of the operations of the relevant AI system."[1621] Similarly, the guidelines for banks

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[1617] International Conference on Data Protection and Privacy Commissioners, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1618] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolutionon-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[1619] Global Privacy Assembly, *Draft Resolution on International Cooperation Capacity Building for Improving Cybersecurity Regulation and Understanding Cyber Incident Harms* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.b.-Resolution-on-International-Cooperation-Capacity-Building-for-Improving-Cybersecurity-Regulation-and-Understanding-Cyber-Incident-Harms-vf.pdf

[1620] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[1621] Hong Kong Office of the Privacy Commissioner for Personal Data, *Guidance on the Ethical Development and Use of Artificial Intelligence* (Aug. 2021),

using AI from the Hong Kong Monetary Authority push banks to hold leadership accountable for AI decision-making, to ensure results from AI systems are explainable and auditable, and to provide transparency to consumers on the use of AI.[1622] These recommendations align with established principles such as the OECD AI Principles, and similar recommendations in the proposed EU AI Act; however, this is just guidance to businesses, and non-binding.

AI and Surveillance

Hong Kong has long-standing concerns about AI surveillance, especially as it relates to its relations with mainland China and the preservation of democracy in Hong Kong. Hong Kong Chief Executive Carrie Lam invoked the Emergency Regulations Ordinance in order to ban the use of face masks during anti-government protests in 2019.[1623] This ordinance gives the chief executive the power to "make any regulations whatsoever which he may consider desirable in the public interest."[1624] In December 2020, Hong Kong's Court of Final Appeal largely upheld the application of the Emergency Regulations Ordinance for the facemask ban.[1625] The use of face masks in the context of the 2019 protests was a deliberate effort by protestors to shield their identity from the government and the subsequent mask ban casts doubt over the future of the right to freely protest in Hong Kong.

Hong Kong has also been a strong proponent of the use of technology in public spaces, laying out its future plans through the Hong Kong Smart Cities Blueprint 2.0, published in December 2020.[1626] These plans include the use of the "StayHomeSafe" mobile app and companion tracking bracelet, whose use was required for all new entrants into Hong

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https://www.pcpd.org.hk/english/resources_centre/publications/files/guidance_ethical_e.pdf

[1622] Hong Kong Monetary Authority, *High Level Principles on Artificial Intelligence* (Nov. 1, 2019), https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2019/20191101e1.pdf

[1623] BBC News, *Hong Kong: Face Mask Ban Prompts Thousands to Protest* (Oct. 4, 2019), https://www.bbc.com/news/world-asia-china-49939173

[1624] Hong Kong E-Legislation, *Cap. 241 Emergency Relations Ordinance*, https://www.elegislation.gov.hk/hk/cap241

[1625] Washington Post, *Hong Kong's highest court upholds ban on masks at protests* (Dec. 21, 2020), https://www.washingtonpost.com/world/hongkong-mask-ban-ruling/2020/12/20/f2722af0-4340-11eb-a277-49a6d1f9dff1_story.html

[1626] Hong Kong Innovation and Technology Bureau, *Hong Kong Smart Cities Blueprint 2.0* (Dec. 2020), https://www.smartcity.gov.hk/modules/custom/custom_global_js_css/assets/files/HKSmartCityBlueprint(ENG)v2.pdf

Kong.[1627] Additionally, as an outcome of the Smart City Blueprint, Hong Kong has pushed to adopt concrete policy standards for the use of autonomous vehicles (AVs).[1628]

The Legislative Council Panel on Transport released a proposal for legislation on this issue, with the goal of increased testing of AVs and a clear process for licensing new test cars.[1629] The blueprint and associated initiatives also outline many plans such as the increased rollout of public wifi and contact tracing for COVID, as well as funding for robotic patrols of airport terminals and a new LawTech Fund.

Despite the clear potential upside, there is no mention of potential concerns, such as data privacy, algorithmic bias, or the potential violation of human rights in the documents rolling out these new initiatives. Furthermore, there was no significant public engagement, despite concerns about negative impacts.[1630] The rollout of new technology in public places, the Hong Kong National Security Law, and the development and use of facial recognition technology by local companies[1631] all threaten the increased use of AI for surveillance purposes in Hong Kong.

Human Rights

As a special administrative region of China, Hong Kong has not ratified the United Nations Universal Declaration of Human Rights (UDHR).[1632] But the above-mentioned AI ethical principles are mentioned to be derived from the UDHR.[1633] Also, the UN International Covenant on

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[1627] Government of Hong Kong Special Administrative Region, *StayHomeSafe User Guide*, https://www.coronavirus.gov.hk/eng/stay-home-safe.html

[1628] Legislative Council Secretariat, Information Services Division, *Policy on testing and deployment of autonomous vehicles* (Jan. 12, 2021), https://www.legco.gov.hk/research-publications/english/essentials-2021ise13-policy-on-testing-and-deployment-of-autonomous-vehicles.htm

[1629] Legislative Council Panel on Transport, *Proposed Regulatory Framework for Autonomous Vehicles* (May 21, 2021), https://www.legco.gov.hk/yr20-21/english/panels/tp/papers/tp20210521cb4-987-3-e.pdf

[1630] Neville Lai and Justin Chan, *People have to be at the heart of Hong Kong's smart city plans"* (27 Nov. 27, 2021), https://www.scmp.com/comment/opinion/hong-kong/article/3157263/people-have-be-heart-hong-kongs-smart-city-plans

[1631] Lachlan Markay, *Scoop: Chinese tech firm sidesteps sanctions* (29 Sept. 29, 2021), https://www.axios.com/chinese-tech-firm-sidesteps-sanctions-de43feaf-7df5-46ad-85bd-8a37ab468e2e.html

[1632] The UNDHR has been ratified by China, which is also a United Nations Member State. See United Nations, *Member States*, https://www.un.org/en/about-us/member-states#gotoH

[1633] Ibid., pp. 1-4.

Economic, Social, and Cultural Rights (ICESCR) and UN International Covenant on Civil and Political Rights (ICCPR) apply to Hong Kong.[1634]

These human rights conventions are also complemented by other articles that protect the rights of citizens, including the Hong Kong Bill of Rights[1635] and the Basic Law.[1636] One of the key provisions in Article 30 of the Personal Data (Privacy) Ordinance protects citizens' right to privacy and clearly identifies principles to be adhered to in the use of personal data.[1637]

The Freedom House 2022 Report ranks Hong Kong as partly free with a total score of 43/100 (down from 52/100 in the 2021 report).[1638] Political rights and civil liberties are scored very low on the report as there is still a large prevalence of pro-Beijing interests in the country's political system and the freedom and autonomy of citizens have to a large extent been controlled by political interventions from mainland China.

OECD / G20 AI Principles

Hong Kong is not a member of the OECD or the G20 and has not endorsed the OECD / G20 AI Principles.[1639]

UNESCO Recommendation on the Ethics of Artificial Intelligence

As a member of UNESCO, Hong Kong including an additional National Organizing Committee (NOC) under China and other 191 member states have adopted the Recommendation on the Ethics of Artificial Intelligence in November 2021, the first global standard on the ethics of

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[1634] United Nations Treaty Collection, *International Covenant on Civil and Political Rights, China*, fn6, https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=IV-4&chapter=4&clang=_en#4 and *International Covenant on Economic, Social, and Cultural Rights, China*, fn8 (with reservations), https://treaties.un.org/pages/ViewDetails.aspx?src=IND&mtdsg_no=IV-3&chapter=4&clang=_en#8
[1635] Hong Kong e-Legislation, *Hong Kong Bill of Rights Ordinance of 1991*, CAP. 383 (June 8, 1991), https://www.elegislation.gov.hk/hk/cap383
[1636] Hong Kong e-Legislation, *Basic Law of Hong Kong Special Administrative Region of the People's Republic of China* (April 4, 1990), https://www.elegislation.gov.hk/hk/A101!en@1997-07-01T00:00:00
[1637] Hong Kong e-legislation, *Cap. 486 Personal Data (Privacy) Ordinance* (Aug. 1, 1996)*, https://www.elegislation.gov.hk/hk/cap486*
[1638] Freedom House, *Freedom in the World 2022*, https://freedomhouse.org/country/hong-kong/freedom-world/2022
[1639] OECD Legal Instruments, *Recommendation of the Council of Artificial Intelligence* (2021), *https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449*

artificial intelligence. However, no measures so far have been put in place by the country to implement the Recommendation.[1640]

Evaluation

Hong Kong is a relatively new player in AI policy adoption and implementation, although it could be safe to link this special administrative region with some of China's AI efforts and achievements due to the administrative relationship between both.

Hong Kong has not been a signatory to the OECD AI Principles or the Universal Declaration for Human Rights; however, it has proposed and implemented similar principles and guidelines and endorsed the UNESCO Recommendation on the Ethics of AI. The leading role played by Hong Kong through the PCPD-sponsored resolution on greater accountability in the development and use of AI to the Global Privacy Assembly (GPA) shows that the region has the potential to play a prominent role in key global AI policy development and implementation.

However, despite being one of the first places to have an independent commissioner for data privacy, Hong Kong has not been quite as proactive in the adoption of policy with regard to the safe use of artificial intelligence. Irrespective of its complicated relationship with mainland China, especially as it relates to surveillance and data protection issues, there is some effort by the government in regulating and promoting ethical AI use within the country. It is unclear, however, how much of this extends to new government initiatives, such as the Smart Cities Blueprint, or issues of national security. More effort is needed by the government in the adoption of a comprehensive national AI strategy that promotes democratic values and human rights, as well as alignment with international commitments to AI principles.

[1640] UNESCO, *UNESCO Adopts First Global Standard on the Ethics of Artificial Intelligence* (Nov. 6, 2022), https://www.unesco.org/en/articles/unesco-adopts-first-global-standard-ethics-artificial-intelligence.

Hungary

National AI Strategy

Recognizing the potential benefits of the technology and simultaneously considering the possible related challenges, the Government of Hungary resolved to have a comprehensive Artificial Intelligence Strategy drawn up. In September 2020, the Hungarian Ministry of Innovation and Technology Government released the National AI strategy, outlining the strategic vision and actions for the development of AI in the period 2020-2030 (Hungary, 2020).

The document sets goals up to 2030 and outlines an action plan extending up to 2025. The AI Strategy is however considered as a living document due to rapid technological developments and experience gathered through the spread of applications. The Strategy shall be reviewed at least every two years.[1641]

In the Strategy, the Hungarian government affirms its commitment to developing Hungarian artificial intelligence – as a special branch of its digitization efforts – to be high-tech and green, in the spirit of Hungary's general development objectives. The AI strategy aims to make the most of the opportunities offered by modern technologies for raising the living standard of citizens and protecting the environment.[1642] Hungary's AI strategy aims to support and boost all relevant sections of the AI value chain from data generation and management, through basic and applied research, to utilization of the technology and raising awareness of the possibilities inherent in practical AI applications.

Through a multi-layered set of goals, the strategy aims to:

(1) Strengthen the foundation pillars of the Hungarian AI ecosystem: data economy, research development and innovation (R&D&I), AI uptake, education and competence development, infrastructure deployment, and regulatory and ethical framework.

(2) Focus on specific sectors and technology fields with the highest acceleration potential for Hungary: manufacturing, healthcare, agriculture, public administration, transportation, logistics and energy.

[1641] László Palkovics, *Minister for Innovation and Technology on Hungary's Artificial Intelligence Strategy 2020 – 2030.*
[1642] László Palkovics, *Minister for Innovation and Technology on Hungary's Artificial Intelligence Strategy 2020 – 2030.*

(3) Initiate transformative programs with long-term ambitious goals that offer direct benefits to citizens: autonomous systems and self-driving vehicles, health-awareness in a digital world, climate-driven agriculture, data-wallet and personalized services, AI-supported development of personal competencies, automated administration procedures in Hungarian, and energy networks focused on renewable sources of energy.

Given its breadth, the Strategy requires a whole-of-government effort that brings together different government ministries under the leadership of the Ministry of Innovation. This effort will be supported by AI Coalition team of different bureaucracies supporting the relevant ministries, as well as a Multi-sectoral Committee of Artificial Intelligence and a Scientific Committee of experts.

AI Ethical Guidelines

Hungary's national AI strategy aims to ensure a responsible, reliable, and human-centered use of AI thanks for the following actions:

- Creating an ethical framework: development of an AI code of conduct by the Ministry of Justice, the Ministry for Innovation and Technology, the AI Innovation Hub and the Central Statistical Office.
- Setting up an Artificial Intelligence Regulation and Ethics Knowledge Centre: the aim is to create and coordinate an extensive pool of experts to help resolve legal issues and matters of ethics relating to the regulation of AI and the implementation of the strategy.
- Establishing a regulatory framework for AI: the objective is to amend the current regulatory system to suit AI and to align it to EU regulations.
- Building data management regulation: the objective is to set up regulations for the use and exchange of public and private data and to define rules regarding data monetization.
- As there is no one-size-fits all solution, the Hungarian strategy calls for the development of sector-specific regulatory frameworks, ensuring that the regulatory needs for AI development are adapted to the relevant industry areas

The responsible governing body for the AI Ethical Guidelines is the AI Coalition of Hungary[7] (*MIK;Mesterséges Intelligencia Koalíció*). The AI Coalition is responsible for adapting the EU High Level Expert Group's AI ethical guidelines to the Hungarian context. The AI Coalition is a typical independent regulatory oversight and ethical advisory body. It is mainly

composed of academics. The type of oversight provided is mostly technical guidance (e.g. toolkits, documentation, technical standards). One of its main activities is to gather opinions from stakeholders on ethical principles, regulation improvements etc.

Public Participation

The strategy has been developed in cooperation with the Hungarian Artificial Intelligence Coalition.[1643] The coalition was established in October 2018 to offer a community and forum for all stakeholders in the Hungarian AI ecosystem who wish to make an active contribution to the development of the Hungarian AI environment and skills.

Hungary's AI strategy also explicitly refers to public engagement activities. Hungary established an internet platform for its citizens to get trained, get exposure to the ongoing events in the AI sector, and engage with country-wide policy developments. The Hungarian government aims to get the best of artificial intelligence in terms of high-value economic return while countering possible adverse effects of the technology through increased public awareness and public participation. The National AI Strategy emphasizes that public engagement is a key aspect of the exercise of fundamental rights and a robust and inclusive business environment. For this reason, the Hungarian AI Strategy prioritizes the need to raise awareness of the use of artificial intelligence, its pragmatic and business applications as well as its projected impact on various sectors through an action plan entitled "The AI Challenge." The Challenge aspires to train 100,000 people in the fundamentals of AI using domestically-generated online course materials. The Action Plan also aims to raise 1 million people's awareness through interactive exhibitions, a website, and online professional content.[1644]

To give a sector-specific example, Hungary has launched a campaign to initiate debates among citizens concerning the use of AI-supported digital health applications with a discussion of their benefits and possible drawbacks. In this regard, an extensive awareness-raising campaign has been launched regarding the importance of health data. The government is planning to receive citizens' questions and concerns through their data wallets. With the analysis of the results, the idea is to develop a marketplace in which qualified service providers would develop systems and supply

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[1643] European Commission, *Hungary AI Strategy Report* (September 2020), https://ai-watch.ec.europa.eu/countries/hungary/hungary-ai-strategy-report_en#ecl-inpage-287
[1644] AI Coalition, *Hungarian AI Program: Learn - AI Hungary* (2020), https://ai-hungary.com/en

related products as part of the implementation of the public's demand that is supervised by this initiative.

Data Protection

Since Hungary is an EU Member State, the GDPR[1645] is directly applicable in Hungary and to Hungarians. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[1646] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018.

The activities of law enforcement authorities for their part are regulated at EU level by the EU Data Protection Law Enforcement Directive (LED).[1647] The LED "protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[1648] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[1649] The LED also requires for Member States, including Sweden, to enable data subjects to exercise their rights via national data protection authorities.[1650]

The Hungarian Act CXII of 2011 on the Right of Informational Self-Determination and on Freedom of Information (Data Protection Act) was

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[1645] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

[1646] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1647] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[1648] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1649] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[1650] Article 17 of the LED.

amended on 26 July 2018 to supplement the GDPR and implement the LED Directive.

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Hungary is also a member of the Council of Europe. It signed but has not yet ratified[1651] the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[1652]

The National Authority for Data Protection and Freedom of Information (NAIH)[1653] is the national supervisory authority in charge of enforcing both the GDPR and the LED. The Authority is also entrusted with duties in connection with the Schengen Information System (SIS), the Customs Information System (CIS), Europol, Eurodac and the Visa Information System (VIS). The NAIH represents Hungary in the European Data Protection Board.

The NAIH is a member of the Global Privacy Assembly since 2002. The Authority has sponsored the 2018 GPA Resolution on AI and Ethics,[1654] but neither the 2020 GPA Resolution on AI and Accountability[1655] nor the 2022 GPA Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology.[1656]

The NAIH has recently published its 2022 annual report in which it

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[1651] Council of Europe, *Chart of signatures and ratifications of Treaty 223* (status as of March 22, 2023), https://www.coe.int/en/web/conventions/full-list?module=signatures-by-treaty&treatynum=223

[1652] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[1654] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1655] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[1656] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

presented a case where it imposed the highest fine to date of ca. EUR 670,000 (HUF 250 million). The case involved the personal data processing of a bank (acting as a data controller) which automatically analysed the recorded audio of customer service calls. The bank used the results of the analysis to determine which customers should be called back by analysing the emotional state of the caller using an artificial intelligence-based speech signal processing software that automatically analysed the call based on a list of keywords and the emotional state of the caller. The software then established a ranking of the calls serving as a recommendation as to which caller should be called back as a priority.

In the course of the procedure before the Authority, it appeared that for years the bank had failed to provide to the data subjects proper notice and the right to object. The Authority emphasised that the only lawful legal basis for the processing activity of emotions-based voice analysis can only be the freely given, informed consent of the data subjects. The NAIH also highlighted that although the bank had carried out a data protection impact assessment (DPIA) and identified that the processing is of high risk to the data subjects, capable of profiling and scoring, the DPIA had failed to present substantial solutions to address these risks. Furthermore, the legitimate interest test performed by the bank had failed to take into account proportionality, the interests of the data subjects, it merely established that the data processing is necessary to achieve the purposes it pursues. Consequently, the Authority, in addition to imposing a record fine, obliged the bank to cease the analysis of emotions in the course of voice analysis. In conclusion, the Authority highlighted that "artificial intelligence is generally difficult to understand and monitor due to the way it works, and even new technologies pose particular privacy risks. This is one of the reasons why the use of artificial intelligence in data management requires special attention, not only on paper but also in practice."[1657]

Algorithmic Transparency

Although it has not yet ratified the Protocol amending the Convention 108 which provides for algorithmic transparency, Hungary is subject to the GDPR. Hungarians have a general right to obtain access to

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[1657] European Data Protection Board, *Data Protection Issues Arising in Connection with the Use of AI* (2022), https://edpb.europa.eu/news/national-news/2022/data-protection-issues-arising-connection-use-artificial-intelligence_en;
Zoltan Kozma and Mark Almasy, *Hungary: Record GDPR fine by the Hungarian Data Protection Authority for the unlawful use of artificial intelligence* (Apr. 12, 2022), https://blogs.dlapiper.com/privacymatters/hungary-record-gdpr-fine-by-the-hungarian-data-protection-authority-for-the-unlawful-use-of-artificial-intelligence/

information about automated decision-making and to the factors and logic of an algorithm.[1658]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[1659] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[1660]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[1661]

[1658] See Recital 63 and Article 22 of the GDPR.

[1659] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1660] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1661] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

Facial Recognition

A project called Szitakötő (dragonfly) was planned in 2016 to deploy 35,000 cameras with facial recognition capabilities in Budapest, and across the country.[1662] From 1 January 2016 onwards, facial data of all residents of and visitors to Hungary, are being stored in a database that can be accessed by Hungarian law enforcement authorities. Hungary's 35 000 CCTV cameras now operate as part of a single centralised searchable system, and its biometric databases have been connected, allowing the police to identify any citizen from their face. The Hungarian Secret Services and police have already made use of the system, resulting in 6000 matches, 250 stop-and-searches and 4 arrests.[1663]

In March 2022, the NAIH investigated and fined a Hungarian municipality (Siófok) for installing AI facial-recognition software within a 39-camera CCTV network. NAIH found that this kind of data processing was unlawful and imposed a fine of HUF 500,000 (EUR 1,250) on the technical service provider partially owned by China. The investigation further revealed a lack of cooperation agreement between the municipality and the police regarding joint control of the CCTV network and the inadequate data security measures in place.[1664]

Lethal Autonomous Weapons

In 2016, Hungary acknowledged that lethal autonomous weapons systems warrant "substantial consideration" and supported continuing diplomatic talks addressing concerns.[17]

In October 2022, Hungary was one of the 70 states which endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an international framework of rules and constraints.[1665] In this joint statement,

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[1662] Hungary Today, *CCTV is it Big brother,* https://hungarytoday.hu/cctv-is-it-big-brother-or-the-eye-of-providence/
[1663] Biometric Update, *EU parliamentary group maps biometric mass surveillance across bloc, calls for ban* (Oct. 26, 2021), https://www.biometricupdate.com/202110/eu-parliamentary-group-maps-biometric-mass-surveillance-across-bloc-calls-for-ban
[1664] Dora Petranyi and Marton Domokos, *Hungarian data protection regulator ruling highlights shortcomings of facial-recognition via CCTV* (March 9, 2022), https://cms-lawnow.com/en/ealerts/2022/03/hungarian-data-protection-regulator-ruling-highlights-shortcomings-of-facial-recognition-via-cctv
[1665] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly,* (2022) https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

States declared that they "are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[1666]

Human Rights

According to Freedom House, in Hungary is a "partly free" country with an overall score of 66/100 for 2023,[1667] losing three points compared to 2022. According to the Freedom House 2023 report, "After taking power in the 2010 elections, Prime Minister Viktor Orbán's Alliance of Young Democrats–Hungarian Civic Union (Fidesz) party pushed through constitutional and legal changes that have allowed it to consolidate control over the country's independent institutions, including the judiciary. The Fidesz government has since passed antimigrant and anti-LGBT+ policies, as well as laws that hamper the operations of opposition groups, journalists, universities, and nongovernmental organizations (NGOs) that are critical of the ruling party or whose perspectives Fidesz otherwise finds unfavorable." Among the key developments in 2022, Freedom House notes, "The coalition of Fidesz and the Christian Democratic People's Party (KDNP) won the April parliamentary elections with 54.13 percent of the vote, securing a fourth consecutive term and a two-thirds parliamentary majority with 135 seats. Election observer missions noted the polls were severely marred by misuse of government resources, an unlevel playing field for opposition parties, and extensive electoral reforms that favored the ruling party." Some similar concerns were raised by the 2022 UN Human Rights Council's Periodic Review of Hungary.[1668]

These findings also correspond to those of Human Rights Watch which has cast shadow on the independence of the Hungarian data protection authority following citizens' complaints related to the 2022 elections. It was found after the elections that data collected by the state for administering public services, such as registering for the Covid vaccine,

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[1666] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

[1667] Freedom House, *Democracy Index: Hungary: Freedom in the World 2022 Country Report*, https://freedomhouse.org/country/hungary/freedom-world/2023

[1668] Human Rights Council, *Human Rights Council Adopts Outcomes of Universal Periodic Review of Hungary, Suriname, Samoa and Greece* (March 23, 2022), https://www.ohchr.org/en/press-releases/2022/03/human-rights-council-adopts-outcomes-universal-periodic-review-hungary

administering tax benefits, and mandatory membership in professional associations, was repurposed to spread Fidesz's campaign messages. According to Human Rights Watch, evidence indicates that the government of Hungary has collaborated with the ruling party in the way it has used personal data in political campaigns. This, combined with the weakening of the political institutions responsible for safeguarding people's right to privacy and guaranteeing an even political playing field, has raised serious human rights concerns.[1669] Following Human Rights Watch's question about the NAIH's handling of the complains received, the President of the Authority distinguished between complaints involving the Hungarian government, which the Authority deemed lawful, and complaints against the data processing practices of the ruling party Fidesz with regard to which the Authority established that Fidesz failed to provide fully appropriate information compliant with requirements of the GDPR to the data subjects in the course of processing in relation to the periodic records related to the survey of the intention to participate in the elections.

Answering to a question about the NAIH's independence, Attila Peterfalvi, the President of the Authority concluded, "We are convinced that the activity of our Authority is fully compliant with the requirements the applicable international and EU law as well as the Hungarian Constitution, governing the full independence of the Authority. To date, no statement refuting this conviction of ours has been made by an authoritative forum in this regard. We are certain that it is unambiguous for experts monitoring our activities that there can be no doubt concerning the independence of our activities."[1670]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that

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[1669] Human Rights Watch, *Trapped in the Web* (2022), https://www.hrw.org/report/2022/12/01/trapped-web/exploitation-personal-data-hungarys-2022-elections

[1670] *Request to the Hungarian National Authority for Data Protection and Freedom of Information*, Case No: NAIH-8218-2/2022 (Nov. 9, 2022), https://www.naih.hu/data-protection/data-protection-reports

any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[1671]

Another concerning case is that of the Pegasus Affair.[1672] Investigations conducted by Direkt3623,[1673] a Hungarian investigative journalism channel, confirmed that around 300 persons were potentially targeted by Pegasus in Hungary. Hungarian authorities initially denied or did not confirmed their involvement and use of Pegasus until Lajos Kósa, Fidesz MP and Chair of the Hungarian Parliament's Committee on Defense and Law Enforcement, admitted that the Interior Ministry had bought and used Pegasus, before finally stating that it was used lawfully upon authorization by the judiciary and/or the Minister of Justice.[1674] At the end of January 2022, NAIH published a report[1675] stating that it had investigated hundreds of cases and that all of them met the required legal criteria (risk for national security, legal authorization).[1676] The Authority reportedly will file a criminal complaint against those who uncovered the mass surveillance for possibly mishandling data.[1677]

[1671] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1672] EU, *Pegasus and Spyware* (2022), https://www.europarl.europa.eu/RegData/etudes/IDAN/2022/732268/IPOL_IDA(2022)732268_EN.pdf ; https://www.europarl.europa.eu/thinktank/en/document/IPOL_STU(2022)740151; https://www.europarl.europa.eu/news/en/press-room/20230123IPR68611/meps-discuss-the-draft-recommendations-of-the-spyware-inquiry-committee

[1673] Telex, *Direkt36* (2021), https://telex.hu/direkt36/2021/07/23/az-orban-kormany-allamtitkarat-is-megceloztak-a-pegasusszal-mikozbenbelharcokat-vivott-paks-ii-miatt

[1674] Hungarytoday, *Fidesz Government Admist Surveillance Israel Journalist Pegasus Spywware* (2022), https://hungarytoday.hu/fidesz-governement-admit-surveillance-israel-journalist-pegasus-spyware/

[1675] NAIH, *Jelentés a Nemzeti Adatvédelmi és Információszabadság Hatóság hivatalból indított vizsgálatának megállapításai a „Pegasus" kémszoftver Magyarországon történő alkalmazásával összefüggésben* (2022), https://www.naih.hu/adatvedelmi-jelentesek/file/486-jelentes-a-nemzeti-adatvedelmi-es-informacioszabadsaghatosag-hivatalbol-inditott-vizsgalatanak-megallapitasai-a-pegasus-kemszoftver-magyarorszagon-tortenoalkalmazasaval-osszefuggesben

[1676] Telexhu (2022), https://telex.hu/belfold/2022/01/31/adatvedelem-peterfalvi-pegasus-vizsgalat

[1677] EU Observer, *Rule of Law*, https://euobserver.com/rule-of-law/154261

OECD / G20 AI Principles

As part of the G20 and as a member to the OECD, Hungary has endorsed the OECD / G20 AI Principles. According to the 2021 OECD report on the State of implementation of the OECD AI Principles, the Hungarian national AI strategy exhibits some features which are in line with the OECD AI Principles such as the adoption of ethical guidelines.[1678]

UNESCO Recommendation on the Ethics of Artificial Intelligence

As a UNESCO member, Hungary endorsed the UNESCO Recommendation on the Ethics of AI. It remains to be seen which concrete steps the country will take to implement the Recommendation in practice.

Evaluation

Hungary has adopted the OECD/ G20 AI Guidelines, the UNESCO Recommendation on the Ethics of AI, a comprehensive National AI Strategy and AI ethical Guidelines. The country also benefits from a strong data protection legal regime owing to its EU membership. Yet, its human rights track records, its surveillance practices and the questions surrounding the 2022 elections as well as the independence of its data protection authority showcase a grimmer picture. It remains to be seen how Hungary will uphold its commitment to trustworthy AI in the coming years. The adoption of the modernized convention 108 would at least signal Hungary's willingness to ensure algorithmic transparency to its fullest and European and international monitoring is in order.

[1678] OECD, *State of implementation of the OECD AI Principles – Insights from national AI policies* (June 2021), https://www.oecd-ilibrary.org/docserver/1cd40c44-en.pdf?expires=1680283942&id=id&accname=guest&checksum=4DEE9AF3E3BF420F8C5236B2BFF3DCE0

India

National AI Strategy

Recognizing the potential of AI to transform and advance its economy, the government of India has initiated and implemented multiple strategies to address research, development, innovation, governance, standards setting, and accountability of AI.

The Indian Ministry of Commerce set up a Task Force on Artificial Intelligence to kick start the use of AI for India's Economic Transformation.[1679] In 2018, the Task Force issued a benchmark report[1680] that has played a key role in setting forth India's vision regarding AI: "While there is a strong consensus that Artificial Intelligence will be a game-changer and a key factor in economic development, there is a concurrent need to arrive at frameworks that will promote its deployment taking all social factors into account." The "Mission" consists in (1) Leveraging AI for economic benefits; (2) Creating policy and legal framework to accelerate AI deployment (3) Formulating concrete 5 year horizon recommendations for specific government, industry and research programs, in wide range of "Domains of Focus."[1681]

In order for India to strategize its approach to AI, the Finance Minister, in his budget speech for 2018 – 2019, mandated NITI Aayog, a policy think tank of the Government of India providing guidance and policy insights,[1682] to establish the National Program on AI, with a view to guiding the research and development in new and emerging technologies.

NITI Aayog, adopted a three-pronged approach: (1) undertaking exploratory proof-of-concept AI projects in various areas, (2) crafting a national strategy for building a vibrant AI ecosystem in India and (3) collaborating with various experts and stakeholders. In June 2018, NITI Aayog released a discussion paper[1683] delineating "the National Strategy on Artificial Intelligence."[1684] The strategy document "is premised on the

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[1679] Ministry of Commerce and Industry, Government of India, *Artificial Intelligence Task Force*, https://www.aitf.org.in

[1680] India Department of Promotion of Industry and Internal Trade, *Report of Task Force on Artificial Intelligence* (Mar. 2018), https://dipp.gov.in/whats-new/report-task-force-artificial-intelligence

[1681] Ministry of Commerce and Industry, Government of India, *Artificial Intelligence Task Force*, https://www.aitf.org.in

[1682] NITI Aayog (Jun. 2019), http://164.100.94.191/niti/content/overview

[1683] NITI Aayog, *National Strategy for AI* (June, 2018), https://niti.gov.in/sites/default/files/2019-01/NationalStrategy-for-AI-Discussion-Paper.pdf

[1684] Ibid.

proposition that India, given its strengths and characteristics, has the potential to position itself among leaders on the global AI map – with a unique brand of #AIforAll." The key objective is to leverage AI to ensure "social and inclusive growth in line with the development philosophy of the government." #AIforAll is meant as model that can be "replicated in other similarly placed developing countries."

NITI Aayog focused on five strategic areas for AI development: healthcare, agriculture, education, smart cities and transportation.[1685] The Policy Think Tank also identified five barriers that need to be addressed in order to realize the full potential of AI:

1) Lack of broad-based expertise in research and application of AI;
2) Absence of enabling data ecosystems – access to intelligent data;
3) High resource cost and low awareness for adoption of AI;
4) Privacy and security, including a lack of formal regulations around anonymization of data; and
5) Absence of collaborative approach to adoption and application of AI.

The 2018 strategy made key recommendations to promote research, education, and protection of civil liberties in AI development, including the following:

1) Create two-tiered research institutes to nurture both academic and industry research;
2) Establish learning platforms for the workforce skill/ re-skill development;
3) Create targeted data sets and incubation hubs for start-ups to facilitate cooperation; and
4) Establish a regulatory framework for data protection and Cyber security.

The discussion paper, while highlighting the ethical factors of AI such as fairness, transparency, privacy, and security, recommended the establishment of a multi-stakeholder marketplace, facilitating the creation of a large foundational annotated data set, setting up partnerships and collaborations, spreading awareness of the advantages AI offers and supporting start-ups. In the interim budget of 2019, the Ministry of Finance cleared funding of approximately USD 950 million towards the NITI

[1685] OECD, *AI in Society* (2020), https://www.oecd.org/publications/artificial-intelligence-in-society-eedfee77-en.htm

Aayog's proposal for the formation of a task force to identify projects and initiatives in which to implement AI technology.[1686]

The 2018 strategy discusses important issues in ethics and AI—including fairness and bias, transparency and explainability, privacy, and security—and advances visions for responsible AI development in its government.

In November 2020, NITI Aayog published an accompanying paper addressing "Enforcement Mechanisms for Responsible AI for All."[1687] In this document, which allowed for public participation and comments, NITI Aayog proposed the creation of an oversight body and articulated its role and proposed duties. These include:

- Manage and update Principles for Responsible AI in India,
- Research technical, legal, policy, and societal issues of AI,
- Provide clarity on responsible behavior through design structures, standards, guidelines,
- Enable access to Responsible AI tools and techniques,
- Education and awareness on Responsible AI,
- Coordinate with various sectoral AI regulators, identify gaps, and harmonize policies across sectors,
- Represent India and other emerging economies in International AI dialogue on Responsible AI

In 2021, NITI Aayog published two additional documents in the context of the #AIforAll strategy. The first one proposed a series of principles for the responsible management of AI systems that may be leveraged by relevant stakeholders in India. These principles are: 1) Principle of Safety and Reliability; 2) Principle of Equality; 3) Principle of Inclusivity and Non-discrimination; 4) Principle of Privacy and security; 5) Principle of Transparency; 6) Principle of Accountability; and 7) Principle of protection and reinforcement of positive human values.[1688]

The second document identified the various mechanisms needed for operationalizing these seven principles by detailing a series of actions for

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[1686] *Finance Ministry Clears Niti Aayog's Artificial Intelligence Proposal* (Sep. 17, 2019), https://www.business-standard.com/article/economy-policy/finance-ministry-clears-niti-aayog-s-artificial-intelligence-proposal-119090901345_1.html
[1687] NITI Aayog, *Working Document: Enforcement Mechanisms for Responsible #AIforAll* (Nov. 2020), https://niti.gov.in/sites/default/files/2020-11/Towards-Responsible-AI-Enforcement-of-Principles.pdf
[1688] NITI Aayog, *Responsible AI #AIForAll Part 1 – Principles for Responsible AI* (Feb. 2021), https://www.niti.gov.in/sites/default/files/2021-02/Responsible-AI-22022021.pdf

the government, the private sector and research institutions that must be adopted to drive responsible AI.[1689]

In September 2021, NITI Aayog launched a "New Experience Studio" in collaboration with Amazon Web Services and Intel, to help showcase the potential of technologies such as AI, machine learning, Internet of Things (IoT), augmented reality and virtual reality, blockchain, and robotics, to accelerate their application in public sector use cases.[1690]

More recently, in November 2022, NITI Aayog released a discussion paper titled "Adopting the Framework: A Use Case Approach on Facial Recognition Technology (FRT)."[1691] NITI Aayog identified FRT as a concrete case to examine the application and operationalisation of the Responsible AI principles it has identified in its previous strategy documents.[1692]

In addition to the NITI Aayog, the Ministry of Electronics and Information Technology (MeitY) is also pursuing work on AI policy. The MeitY charged four AI Committees with promoting AI initiatives and developing policy frameworks to address 1) platforms and data on AI; 2) leveraging AI for identifying national missions in key sectors; 3) mapping technological capabilities, key policy enablers required across sectors, skilling, re-skill; and 4) Cybersecurity, safety, legal and ethical issues.[1693]

These AI Committees have formulated some recommendations including:

- Development of an Open National AI Resource Platform (NAIRP) to become the central hub for knowledge integration and dissemination in AI and ML;
- Stakeholders need to deliberate on whether AI systems should be recognized as a legal person in the event of a civil liability claim;
- Sharing of best practices by the government around security, privacy, and other issues;

[1689] NITI Aayog, *Responsible AI #AIForAll Part 2 - Operationalizing Principles for Responsible AI* (Feb. 2021), https://www.niti.gov.in/sites/default/files/2021-08/Part2-Responsible-AI-12082021.pdf
[1690] India News Network, *NITI Aayog, Amazon and Intel come together to accelerate digital innovation in India* (Sept, 30, 2021), https://www.indiavsdisinformation.com/20210930/niti-aayog-amazon-and-intel-come-together-to-accelerate-digital-innovation-in-india.
[1691] https://www.niti.gov.in/sites/default/files/2022-11/Ai_for_All_2022_02112022_0.pdf
[1692] https://indiaai.gov.in/news/niti-aayog-seeks-comments-on-the-discussion-paper-on-facial-recognition-technology
[1693] Government of India, Ministry of Electronics and Information Technology, *Artificial Intelligence Committee Reports*, https://www.meity.gov.in/artificial-intelligence-committees-reports.

- Constitute a stakeholder committee to review existing laws to understand needed modifications for AI applications;
- AI framework should provide broad principles, and organizations should design their internal compliance programs to maximize flexibility with changing technologies;
- Standards should be set to address the AI development cycle. The Bureau of Indian Standards (BIS) has established a new committee for standardization in AI;
- Develop rigorous government safety parameters and thresholds so that AI applications are designed to minimize harm to people and property.

Quad Group

In September 2021, the Quad Group, India, United States, Australia, and Japan, released the "quad principles on Technology Design, Development, Governance and Use," with at their core a commitment to shared democratic values and respect for universal human rights. The principles identified are: 1) Support of universal values, such as freedom of expression, privacy, autonomy, agency, and dignity of individuals; 2) Building trust, integrity and resilience; and 3) Fostering healthy competition and international collaboration to advance the frontier of science and technology.[1694]

In March 2021, the U.S. - India Artificial Intelligence (USIAI) Initiative was launched to serve as a platform to discuss opportunities for bilateral AI R&D collaboration, share ideas for developing an AI workforce, and recommend modes and mechanisms for catalyzing their partnership.[1695] In May 2022, India and the US also announced the launch of the U.S.-India initiative on Critical and Emerging Technology (iCET) to foster closer industrial cooperation in strategic and defense technologies, notably in the areas of artificial intelligence, quantum computing, semiconductors and 5G.[1696]

[1694] The White House, *Quad Principles on Technology Design, Development, Governance, and Use* (Sept. 24, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/24/quad-principles-on-technology-design-development-governance-and-use/

[1695] *U.S. - India Artificial Intelligence (USIAI) Initiative,* https://usiai.iusstf.org/

[1696] https://www.whitehouse.gov/briefing-room/statements-releases/2023/01/31/fact-sheet-united-states-and-india-elevate-strategic-partnership-with-the-initiative-on-critical-and-emerging-technology-icet/

Public participation

The government of India has conducted several public consultations on AI policy. NITI Aayog has requested public comments on its various #AIforAll documents.[1697] The Department of Telecommunications also invited public comments on the AI standardization committee's design of India's AI Stack, a framework designed to provide standards for all sectors addressing: data privacy, protection, federation, and minimization; defined data structures; interfaces and protocols; ethical standards; digital rights; and trustworthiness (AI Standardization committee, 2020). The Ministry of Electronics and Information Technology (MeitY) for its part publishes reports from each of its four AI Committees, each charged with promoting AI initiatives and developing policy frameworks.[1698]

In November 2020, the Software Freedom Law Center India (SFLC) wrote to the Chairperson of the Joint Parliamentary Committee regarding the Draft Personal Data Protection bill and asked the Committee to invite civil society organizations that "defend the rights of citizens in the digital space for consultation on the draft Data Protection Bill."[1699] The SFLC noted "core deficiencies in the draft bill "including the lack of surveillance reforms, wide exemptions and problems with the Data Protection Authority."

Further, the NITI Aayog "proposed setting up of an oversight body to set up standards, guidelines and benchmarks for use of artificial intelligence across sectors, which will be mandatory for public sector procurement. The overarching body would also be responsible for educating and creating awareness on responsible AI, coordinating with various sectoral AI regulators as well as identifying gaps and harmonizing policies across sectors. "Further, it would represent India (and other emerging economies) in International AI dialogue on responsible AI." This oversight body is expected to have "field experts from computer science, AI, legal experts, sector specialists and representatives from civil societies, humanities and social science."[1700]

[1697] AI Standardization committee (2020), https://indiaai.gov.in/ai-standards.

[1698] Ministry of Electronics and Information Technology, *Artificial Intelligence Committees Reports*, https://www.meity.gov.in/artificial-intelligence-committees-reports.

[1699] SFLC, *Letter to Joint Parliamentary Committee on inviting civil societies for consultation on draft Data Protection Bill* (Nov. 18, 2020), https://sflc.in/updates-aadhaar-final-hearing/aadhaar-judgement.

[1700] Yogima Seth Sharma, *NITI Aayog wants dedicated oversight body for use of artificial intelligence*, The Economic Times, https://economictimes.indiatimes.com/news/economy/policy/niti-aayog-wants-dedicated-oversight-body-for-use-of-artificial-intelligence/articleshow/.

Data Protection

India does not have a standalone law on data protection. The usage of personal data is regulated under the Information Technology (IT) Act, 2000.[1701] In 2017, the central government constituted a Committee of Experts on Data Protection chaired by Justice B. N. Srikrishna to examine issues relating to data protection in the country. The Committee submitted its report in July 2018. "This report is based on the fundamental belief shared by the entire Committee that if India is to shape the global digital landscape in the 21st century, it must formulate a legal framework relating to personal data that can work as a template for the developing world. Implicit in such a belief is the recognition that the protection of personal data holds the key to empowerment, progress, and innovation. Equally implicit is the need to devise a legal framework relating to personal data not only for India, but for Indians." [1702]

The Supreme Court of India's landmark *Aadhaar* privacy judgment in September 2018, created another series of discussions regarding the data protection law reform and other improvements have been undertaken. The *Aadhaar* privacy decision reaffirmed the centrality of privacy in one of the world's largest AI-based identity systems. The decision has provided a strong legal foundation for data protection and respect of the individual.

The draft Personal Data Protection (PDP) Bill, 2019 was introduced in Lok Sabha in December 2019.[1703] The Bill was referred to a Joint Parliamentary Committee which submitted its report to the Indian Parliament in December 2021, after two years of deliberations on the draft bill with seven dissent.[1704] The draft bill has been criticized for conflating issues and bringing social media and non-personal data into its ambit and at the same time exempting government from the scope of the statute. In fact,

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[1701] *The Information Technology Act, 2020*,
https://www.indiacode.nic.in/bitstream/123456789/13116/1/it_act_2000_updated.pdf

[1702] Committee of Experts under the Chairmanship of Justice B.N. Srikrishna, *A Free and Fair Digital Economy Protecting Privacy, Empowering Indians* (July 2018),
https://www.meity.gov.in/writereaddata/files/Data_Protection_Committee_Report.pdf

[1703] *Personal Data Protection Bill, 2019,*
https://prsindia.org/files/bills_acts/bills_parliament/2019/Personal%20Data%20Protectio n%20Bill,%202019.pdf

[1704] Joint Parliament Committee, *Report of the Joint Committee on the Personal Data Protection Bill, 2019* (Dec. 2021), https://www.ahlawatassociates.com/wp-content/uploads/2021/12/17-Joint-Committee-on-the-Personal-Data-Protection-Bill-2019.pdf

Justice Srikrishna who had led the drafting of the original bill criticized the revision by calling it "Orwellian."[1705]

In August 2022, the 2019 PDP Bill was withdrawn by the Indian Government in Parliament. On 18 November 2022, the Ministry of Electronics and Information Technology released the long-awaited fourth draft of India's proposed data protection law, now renamed as the Digital Personal Data Protection Bill. The Government sought for feedback till 17 December 2022.[1706] With regard to its scope, the draft bill mentions: "The provisions of this Act shall not apply to: (a) non-automated processing of personal data.[1707]"

Algorithmic Transparency

Prime Minister Modi addressed directly the issue of algorithmic transparency in October 2020.[1708] Speaking at the Responsible AI for Social Empowerment (RAISE) summit, he declared, "It remains our collective responsibility to ensure trust in how AI is used. Algorithm Transparency is key to establishing this Trust. Equally important is accountability. We must protect the world against weaponization of AI by Non-State Actors."

The last version of the PDP Bill referred to algorithmic transparency (Clause 23), adding that companies should be transparent about the fairness of algorithms used for the processing of personal data.[1709] However it does not seem to be explicitly provided for in the draft Digital Personal Data Protection Bill although the right to information ends with an open clause.

[1705] Justice BN Srikrishna, *Data protection bill is Orwellian, loaded in favour of the government* (Nov. 26, 2021), https://www.moneycontrol.com/news/business/data-protection-bill-is-orwellian-loaded-in-favour-of-the-government-justice-bn-srikrishna-7763331.html

[1706] Ministry of Electronics and Information Technology, *The Digital Data Protection Bill*, (2022), https://www.meity.gov.in/writereaddata/files/The%20Digital%20Personal%20Data%20Protection%20Bill%2C%202022.pdf

[1707] 4. Application of this Act, (3), of *The Digital Data Protection Bill*, (2022), https://www.meity.gov.in/writereaddata/files/The%20Digital%20Personal%20Data%20Protection%20Bill%2C%202022.pdf

[1708] PM Narendra Modi, *We want India to become a global hub for Artificial Intelligence* (Oct. 5, 2020), https://www.narendramodi.in/text-of-pm-s-address-at-the-inauguration-of-responsible-ai-for-social-empowerment-2020-summit-551754

[1709] For an appraisal IAPP, *A look at proposed changes to India's (Personal) Data Protection Bill* (Jan. 5, 2022), https://iapp.org/news/a/a-look-at-proposed-changes-to-indias-personal-data-protection-bill/; Atlantic Council, *Experts react: India's Personal Data Protection Bill tabled in Parliament* (Jan. 4, 2022), https://www.atlanticcouncil.org/blogs/southasiasource/experts-react-indias-personal-data-protection-bill-tabled-in-parliament/

The draft provides that "the Data Principal shall have the right to obtain from the Data Fiduciary: (…)(4) any other information as may be prescribed."

India's AI Stack and Aadhaar

In 2009, India created UIDAI (Unique Identity Authority of India) and embarked on the creation of an ambitious digital biometric identity ecosystem, the Aadhaar identity system. This ecosystem utilizes AI and machine learning techniques throughout. To facilitate a fully digital, cashless society and economy, a large number of open application programming interfaces or APIs are now associated with the Aadhaar ecosystem.

When these APIs are linked to services or data, including those utilizing AI, it is part of "The India Stack."[1710] In 2019, to further address concerns of standardization of AI development, the Department of Telecommunications formed an AI standardization committee to develop interface standards and design India's AI Stack, a framework designed to provide standards for all sectors addressing: data privacy, protection, federation, and minimization; defined data structures; interfaces and protocols; ethical standards; digital rights; and trustworthiness.[1711] The committee released a report in 2020, and invited public comments on the design of India's AI Stack. The India Stack is the largest system of its kind in the world, and by extension, among the largest AI / Machine Learning based systems in the world.

The Aadhaar system, originally a voluntary pilot program, became mandatory overtime and was tied to many services, which eventually created substantive human rights and privacy issues.[1712] However, a series of landmark rulings from the Supreme Court of India, culminating in the landmark *Aadhaar Privacy* judgment of 2018,[1713] attempted to curtail the negative uses of the Aadhaar system although a significant national mandate for technological, procedural, and policy improvements remained.[1714]

[1710] The India Stak, https://www.indiastack.org/about/

[1711] AI Standardisation committee (2020), https://indiaai.gov.in/ai-standards

[1712] Pam Dixon, *A Failure to "Do No Harm" – India's Aadhaar biometric biometric ID program and its inability to protect privacy in relation to measures in Europe and the U.S., Health Technology* (May 4, 2017), https://link.springer.com/epdf/10.1007/s12553-017-0202-6

[1713] Software Freedom Law Center, *Full text of decision* (Sept. 26, 2018), https://sflc.in/updates-aadhaar-final-hearing/aadhaar-judgement

[1714] The Hindu, *Reactions to the Aadhaar verdict: Original Aadhaar petitioner Justice Puttaswamy welcomes parts of the judgment* (Sept. 26, 2018), https://www.thehindu.com/news/national/reactions-to-aadhaar-verdict/article25046282.ece

Because of this, throughout India there is a strong impetus toward implementing mitigation for privacy and autonomy concerns in the Aadhaar system, the "India Stack", and in general, AI systems. This mandate includes public participation in, and understanding of, AI systems. Since the *Aadhaar* ruling, many improvements have been made regarding AI-based identity systems and services, the "India Stack." However, the use and implementation of Aadhaar with AI tends to fall within the gray-zone of the *Aadhaar Privacy* judgment of 2018 as it prohibits the use of Aadhaar by private entities and limits the use of Aadhaar by the Government towards providing subsidies, benefits and services. In this regard, the Attorney General for India later issued a guiding opinion[1715] in 2019, the Aadhaar Act was further amended[1716] to make the statute comply with the *Aadhaar* judgment.[1717] Another concern regarding the constitutional validity of the Aadhaar statute has also arisen as it was passed as a "money bill."[1718] However, privacy concerns remain and this area needs to be observed in the future. In addition, application of the GDPR in Europe renewed the focus on implementation of privacy and data protection features within India as well.

In addition, in January 2020 the NITI Aayog released recommendations that an AI-explicit computer framework (AIRAWAT)[1719] be established to serve the needs of innovation hubs, AI research, and students, as well as a new discussion paper regarding the issue of Responsible AI.

In January 2022, the Ministry of Electronics and Information Technology has proposed a new model of "Federated Digital Identities" under which a citizen's multiple digital IDs — from PAN and Aadhaar to driving license and passport numbers could be interlinked, stored, and

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[1715] Opinion of the Attorney General for India (Oct. 15, 2018), https://uidai.gov.in/images/Circular%20-Use%20of%20Aadhaar%20for%20opening%20bank%20accounts%20and%20withdrawal%20of%20money%20through%20AePS-reg.pdf

[1716] Ministry of Law and Justice, *The Aadhaar And Other Laws (Amendment) Act, 2019*, https://www.uidai.gov.in/images/news/Amendment_Act_2019.pdf

[1717] Supreme Court of India, *Contempt Petition (CIVIL) NO. 34 OF 2018* in WRIT PETITION (CIVIL) NO. 1014 OF 2017, https://main.sci.gov.in/supremecourt/2012/35071/35071_2012_Judgement_26-Sep-2018.pdf

[1718] Bar and Bench, *Decoding the Tribunal Judgment* (Nov. 15, 2019), https://www.barandbench.com/columns/column-decoding-the-tribunal-judgment.

[1719] NITI Aayog, *AIRAWAT: An AI Specific Cloud Compute Infrastructure* (Jan.2020), https://www.niti.gov.in/sites/default/files/2020-01/AIRAWAT_Approach_Paper.pdf.

accessed via one unique ID envisaged under India Digital Ecosystem Architecture 2.0.[1720]

Facial Recognition

As part of its series of publications on Responsible Artificial Intelligence (RAI), NITI Aayog published a case study for adopting a framework on facial recognition technology, seeking public comments.[1721] The objective of this case study is to determine how the "governments can adhere to its stated objective of responsible and safe deployment of AI and algorithmic systems."[1722]

In 2022, the he European Center for Not-for-Profit Law (ECNL), the International Network of Civil Liberties Organizations (INCLO) and Privacy International (PI) joined together to conduct a broad survey of Covid-19 surveillance measures, such as facial recognition, adopted in 15 countries, including India, to investigate negative impacts of surveillance technology and measures employed during the Covid-19 pandemic on activist movements and organizations.[1723] The report shows that "surveillance technologies had and continue to have very serious implications for the enjoyment of human rights – and for civic space more broadly."[1724]

EdTech

In May 2022, Human Rights Watch published a global investigative report on the education technology (EdTech) endorsed by 49 governments, including India, for children's education during the pandemic. Based on technical and policy analysis of several EdTech products used in India, Human Rights Watch found that India's endorsement of the majority of these online learning platforms put at risk or directly violated children's rights. Some EdTech products targeted children with behavioral advertising. Many more EdTech products sent children's data to AdTech companies that specialize in behavioral advertising or whose algorithms determine what children see online.

[1720] InDEA 2.0, *India Digital Ecosystem Architecture* (Jan. 2022), https://www.meity.gov.in/writereaddata/files/InDEA%202_0%20Report%20Draft%20V6%2024%20Jan%2022_Rev.pdf.

[1721] NITI Aayog, *Adopting the Framework: A Use Case Approach on Facial Recognition Technology* (Nov. 2022), https://www.niti.gov.in/sites/default/files/2022-11/Ai_for_All_2022_02112022_0.pdf

[1722] Ibid, p. 2.

[1723] European Center for Non-for-Profit Law, U*nder Surveillance: (Mis)use of Technologies in Emergency Responses,* https://files.inclo.net/content/pdf/79/INCLO-Under%20Surveillance-Report.pdf

[1724] Ibid, p. 5.

According to Human Rights Watch, in line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop, refine, and enforce modern child data protection laws and standards, and ensure that children who want to learn are not compelled to give up their other rights in order to do so.[1725]

Lethal Autonomous Weapons

The Indian Army has been steadily embracing emerging and disruptive technologies to transform itself from a manpower-intensive to a technology-enabled force to meet future security challenges.[1726] The Indian Armed force first started acquiring automated drones in 2019 as part of a modernization campaign. "However, modern warfare, situational awareness and battlefield operability failed miserably in recent Indian military tactics against Pakistan and China." Nevertheless India is determined to take part in the lethal autonomous weapons race in the South Asian region.

India's Defence Research and Development Organization (DRDO) has been involved in the R&D of Direct Energy Weapons, gun-mounted remotely operated vehicles, canasterized nuclear weapons (Agni-V) and swarm-based self–healing minefields. The most crucial project rolled out by DRDO is the unmanned remotely operated tank "Muntra", that comes with three variants. Muntra-S, Muntra-M and Muntra-N have proven efficiency in surveillance, mine detection and reconnaissance in a strategic location. The indigenous R&D of Robots for armed forces is a crucial part of lethal autonomous weapons systems under the new program of Prime Minister Narendra Modi's "Make in India."[1727] As part of this program, the Indian Navy is also focused on incorporating AI and Machine Learning in

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[1725] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments.

[1726] Sumit Kumar Singh, *Indian Army employing autonomous weapon systems* (Jan. 16, 2021), https://www.southasiamonitor.org/india/indian-army-employing-autonomous-weapon-systems

[1727] Make in India, *Defence Manufacturing*, https://www.makeinindia.com/sector/defence-manufacturing

critical mission areas. The program has brought together government and private organizations working on producing lethal autonomous weapons.[1728]

India has not taken part in recent initiatives to regulate or prohibit the use of lethal autonomous weapons. In October 2022, 70 states endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an international framework of rules and constraints.[1729] In this joint statement, States declared that they "are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[1730] India did not endorse this joint statement.

Human Rights

India was among the original 48 countries that voted in favor of the Universal Declaration of Human Rights in 1948. According to Freedom House, India is a "partly free" country. Its track record in terms of political rights and civil liberties has steadily declined in recent years. Freedom House reports, "While India is a multiparty democracy, the government led by Prime Minister Narendra Modi and the Hindu nationalist Bharatiya Janata Party (BJP) has presided over discriminatory policies and a rise in persecution affecting the Muslim population. The constitution guarantees civil liberties including freedom of expression and freedom of religion, but harassment of journalists, nongovernmental organizations (NGOs), and other government critics has increased significantly under Modi. The BJP has increasingly used government institutions to target political opponents.

[1728] Noor-ul-Huda, *Modern Warfare and Autonomous Weapons: Destructive ways of Alternative Technologies in India* (March 22, 2022), https://iigsa.org/modern-warfare-and-autonomous-weapons-destructive-ways-of-alternative-technologies-in-india/

[1729] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly,* (2022) https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

[1730] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

Muslims, scheduled castes (Dalits), and scheduled tribes (Adivasis) remain economically and socially marginalized."[1731]

OECD / G20 AI Principles

As a G20 member, India endorsed the G20 AI Principles at the 2019 G20 Leaders' Summit in Japan. India holds the Presidency of the G20 from December 1, 2022, to November 30, 2023. The 43 Heads of Delegations, the largest ever in G20, will be participating in the final New Delhi Summit in September next year.[1732] India stated that the "G20 Presidency would be a watershed moment in her history as it seeks to play an important role by finding pragmatic global solutions for the wellbeing of all, and in doing so, manifest the true spirit of 'Vasudhaiva Kutumbakam' or the 'World is One Family'."[1733] It remains to be seen how this will concretize in the field of AI.

According to the OECD, most but not all of the OECD AI principles are addressed in the national AI strategy.[1734] According to OECD AI Observatory, following the #AIforAll initiative, India is now addressing accountability.[1735]

India is a founding member and the current Chair of the Global Partnership on AI, an international initiative to support responsible and human-centric development and use of AI. [1736]
"The power of artificial intelligence can be exploited for the good of the citizens and consumers across the globe and ensure that there are adequate guardrails to prevent misuse and user harm," said the Minister of State for IT Rajeev Chandrasekhar at the GPAI meeting held in Tokyo.[1737]

UNESCO Recommendation on the Ethics of Artificial Intelligence

India has been a member of UNESCO since its inception in 1946. India has endorsed the UNESCO Recommendation on AI Ethics. It remains

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[1731] Freedom House, *Freedom in the World 2023 – India* (2023), https://freedomhouse.org/country/india/freedom-world/2023

[1732] Ministry of External Affairs, https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1882356#:~:text=India%20holds%20the%20Presidency%20of,Summit%20in%20September%20next%20year

[1733] Government of India, *About G20 Presidency*, https://g20.mygov.in

[1734] OECD G20 Digital Economy Task Force, *Examples of AI National Policies* (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf

[1735] OECD.AI, *AI in India*, https://oecd.ai/en/dashboards/countries/India

[1736] Ministry of External Affairs, https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1882356#:~:text=India%20holds%20the%20Presidency%20of,Summit%20in%20September%20next%20year

[1737] Jibu Elias, *AI for All: How India is carving its own path in the global AI race* (Jan. 30, 2023), https://oecd.ai/en/wonk/india

to be seen however how it will implement it in practice. Recently, UNESCO released a report on the State of the Education Report for India and urged it to implement ethical AI in its education system as India is one of the biggest contributors to AI development.[1738]

Evaluation

India has endorsed the G20 AI Principles and the UNESCO Recommendation on the Ethics of AI. The country has set out a comprehensive set of national AI strategies with a clear ethical dimension. However, the recent decline in human rights protection in India, combined with the lack of a comprehensive data protection law regime and independent oversight, raise significant concerns in view of the expanded use of the Aadhaar system and the non-committal position of India with regard to the regulation or prohibition of lethal autonomous weapons. It remains to be seen whether India's combined G20 Presidency and GPAI Chair in 2023 will incentivize the country to lead the world toward "AI for All," as it has professed to do in its AI policy initiatives.

[1738] UNESCO, *UNESCO Digital Library* (2022),
https://unesdoc.unesco.org/ark:/48223/pf0000382661.locale=en

National AI Strategy

        Indonesia published the National Strategy for Artificial Intelligence (*Stranas KA*) in August 2020.[1739] The National Strategy is aimed at advancing the Indonesian economy through leadership in AI, through the year 2045.[1740] The AI Strategy for Indonesia is intended to implement Vision Indonesia 2024, the country's economic, social, governance and technology development strategy. The National Strategy for AI also follows "Making Indonesia 4.0", a government-sponsored program, announced in 2018, to promote the automation of the Indonesian society. "Making Indonesia 4.0" involves 10 cross-sectoral initiatives aimed at boosting Indonesia's competitive performance in key areas like manufacturing, industry, biology, and hardware automation,[1741] through investments in AI, robotics, and technology-based Indonesian firms as well as encouraging investment from leading Japanese, Chinese, and Korean tech firms.[1742]

        Stranas KA outlines five national priorities where AI is anticipated to have the biggest impact: (1) health services to accelerate plans for smart hospitals and health security infrastructure in the aftermath of the pandemic; (2) bureaucratic reform to implement digital services for citizen-centric public service ("*pemerintahan digital melayani*"); (3) education and research to aid online schooling and bridge the digital divide; (4) food security for smart agriculture, fisheries, and management of natural resources; as well as (5) mobility and services to facilitate the development of 98 smart cities and 416 smart districts under Indonesia's 100 Smart Cities Movement.[1743]

[1739] *KA Menuju Visi Indonesia 2045: Pusat Inovasi Kecerdasan Artifisial Indonesia,* https://ai-innovation.id

[1740] Made Anthony Iswara, *Indonesia Sets Sights on Artificial Intelligence Strategy,* The Jakarta Post (Aug. 14, 2020), www.thejakartapost.com/news/2020/08/13/indonesia-sets-sights-on-artificial-intelligence-in-new-national-strategy.html

[1741] Asia Society Policy Institute, *Raising Standards: Data & Artificial Intelligence in Southeast Asia* (July 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

[1742] Ministry of Investment/BKPM, *Making Indonesia 4.0: Indonesia's Strategy to Enter the 4th Generation of Industry Revolution*, https://www2.investindonesia.go.id/en/why-invest/indonesia-economic-update/making-indonesia-4.0-indonesias-strategy-to-enter-the-4th-generation-of-ind

[1743] Asia Society Policy Institute, *Raising Standards: Data & Artificial Intelligence in Southeast Asia* (July 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

The Indonesian National AI Strategy identifies four key focus areas: (1) Ethics and Policy, (2) Talent Development, (3) Infrastructure and Data, and (4) Industrial Research and Innovation. In the focus area of Ethics and Policy, the goals include implementing data sharing ethics, establishing a Data Ethics Board, and strengthening laws to crack down on the abuse of technology and the misuse of data privacy.

Indonesia has already made progress in AI.[1744] A 2018 International Data Corporation survey found that Indonesian companies had the highest rates of AI adoption in Southeast Asia; a number of state projects employ AI, to anticipate state fires for example; and some government agencies are promoting AI development and technology-based tools at schools and other learning institutions.[1745] However, the survey mentions data misuse as a hurdle and notes that the country has neither the provisions to regulate AI, nor an official agency to oversee AI development. The survey recommend establishing a data ethics board that would set national standards for AI innovation. There is currently no such agency or institutional structure in place to oversee the governance and ethical use of AI.[1746]

Pancasila Values

The National Strategy states that Indonesian AI policy should be based on Pancasila values. Pancasila is the philosophical theory that is the foundation of the Indonesian government and policy. It is comprised of five principles: (1) Belief in The One True God, (2) A fair-minded and civilized humanity, (3) Unity of Indonesia, (4) Democracy (from the people) led by Wisdom of consultation [of the] representatives [of the people], and (5) Social justice for every person in Indonesia.[1747] The AI Strategy sets out the importance of establishing public trust through transparency, social and ecological welfare, robustness and technical safety, diversity, justice, and non-discrimination, amongst others. The Strategy emphasizes the importance of AI being reliable, safe, open, and accountable. The synergy between stakeholders is also mentioned to ensure that the policy is relevant and helpful.

[1744] Global Government Forum, *Indonesia publishes AI strategy* (Aug. 20, 2020), https://www.globalgovernmentforum.com/indonesia-publishes-ai-strategy/

[1745] People Matters, *The Journey of AI Adoption in ASEAN Countries* (Oct. 23, 2018), https://www.peoplemattersglobal.com/article/technology/the-journey-of-ai-adoption-in-asean-countries-19636

[1746] Asia Society Policy Institute, *Raising Standards: Data & Artificial Intelligence in Southeast Asia* (July, 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

[1747] Wikipedia, *Pancasila (politics),* https://en.wikipedia.org/wiki/Pancasila_(politics)

Public Participation

The Agency for the Assessment and Application of Technology, coordinated the development of the National AI Strategy. The development was carried out with help of a "wide variety of public and private sector organizations" who "contributed to the plan including government ministries, universities, industry associations, and national telecom providers."[1748]

A website[1749] dedicated to the National AI Strategy illustrates the strategy and provides material from the AI Summit 2020. The website also provides an Artificial Intelligence Map[1750] that describes the research institutes, universities, industries, and communities that develop and utilize innovative Artificial Intelligence in Indonesia.

According to the Jakarta Post, AI providers and experts have lauded the move to establish a foundation for AI development while urging the government and other stakeholders to improve on the strategy, fix current flaws and anticipate risks.[1751] University of Indonesia AI and robotics professor Wisnu Jatmiko described AI as an "extraordinary challenge." He told The Jakarta Post that the country needs to nurture high-quality talent in the field of AI and bolster infrastructure, including fixing internet connection issues and developing its own cloud computing system to prevent the leak of confidential information. Big Data and AI Association chairman Rudi Rusdiah and Institute for Policy Research and Advocacy researcher Alia Yofira Karunian said the national strategy should uphold principles of fairness, accountability, and transparency as pillars of AI implementation. Karunian called on the government to detect and iron out biases in automated decision-making through human intervention, and to ensure people have the right not to have AI make decisions about them. "We must learn from the mistakes of other countries," she said.

The Jakarta Smart City initiative also encouraged community participation and government responsiveness through social media, public figures, and a public reporting system. Further, the "management of

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[1748] Carrington Malin, *Indonesia National AI Strategy published this month* (Aug. 16, 2020), https://www.carringtonmalin.com/2020/08/16/indonesia-national-ai-strategy-set-in-motion-this-month/

[1749] Artificial Intelligence Innovation Center of Indonesia, *AI Towards Indonesia Vision 2045*, https://ai-innovation.id/

[1750] Artificial Intelligence Mapping, https://ai-innovation.id/peta-ka

[1751] Made Anthony Iswara, *Indonesia Sets Sights on Artificial Intelligence Strategy,* The Jakarta Post (Aug. 14, 2020), www.thejakartapost.com/news/2020/08/13/indonesia-sets-sights-on-artificial-intelligence-in-new-national-strategy.html

community complaints was conducted with effective coordination between the Jakarta Smart City team and various government departments."[1752]

Data Protection

On 20 September 2022, the Indonesian Government and Parliament passed the first Indonesian Personal Data Protection Law. This is the first step to the enactment of the PDP Bill as law. The second step was Presidential assent, which happened on October 17, 2022, and signifies the enactment and coming into force of the law.[1753] The law made many references to the EU GDPR The PDP Law enshrines among others the Data Subject's right to object to automatic profiling activities. PDP Law exempts the financial services sector, stricter requirements on broad record-keeping obligations, unique provisions on facial recognition technology, and special categories of data (children data, personal financial data, etc.).[1754]

The PDP Law provides for the establishment of a Data Protection Authority (DPA). "Article 58 of the PDP law states that the DPA will implement the PDP Law and report to the Indonesian President, which will create the institution within the Executive branch of the government. The Indonesian DPA will have four key functions: (i) policy, strategy, and guidance formulation; (ii) supervision of the implementation of the PDP Law; (iii) administrative law enforcement against violations; and (iv) facilitating out-of-court dispute resolution."[1755]

The PDP Law includes fines of up to 2% of a company's annual revenue, the potential confiscation of assets, and a stipulation that individuals could be imprisoned for up to six years for falsifying personal data or up to five years for collecting personal data illegally.

[1752] 1 World Connected, *Jakarta Smart City* (Sept. 1, 2020), https://1worldconnected.org/project/asia_egov_jakartasmartcityindonesia/

[1753] Hunter Dorwart, Katerina Demetzou, Josh Lee Kok Thong, Dominic Paulger, Lee Matheson, & Isabella Perera, Future of Privacy Forum, Indonesia Personal Data Protection Bill:Overview, Takeaways and, Context, (Oct. 19, 2022), https://fpf.org/blog/indonesias-personal-data-protection-bill-overview-key-takeaways-and-context/

[1754] Hunter Dorwart, Katerina Demetzou, Josh Lee Kok Thong, Dominic Paulger, Lee Matheson, & Isabella Perera, Future of Privacy Forum, Indonesia Personal Data Protection Bill:Overview, Takeaways and, Context, (Oct. 19, 2022), https://fpf.org/blog/indonesias-personal-data-protection-bill-overview-key-takeaways-and-context/

[1755] Ibid.

The Indonesian data protection regime comprises several other laws such as the Law regarding Electronic Information and Transactions (EIT Law) and its implementing regulations.[1756]

AI Oversight

Until a data protection authority is established, the Minister of Communication and Informatics (MoCI) is responsible for overseeing compliance with the data protection regime.[1757] However, certain sectors have their own authorities to ensure compliance with the regulatory regime. For example, the Indonesian Financial Services Authority (FSA) has the authority to act as the regulator of data privacy in the capital markets sector and with regard to banks' customer data privacy issues.[1758]

The National Human Rights Commission of Indonesia, Komnas HAM aims to "improve the protection and enforcement of human rights in order to develop the whole Indonesian human person and the ability to participate in various fields of life."[1759] Komnas HAM is an independent institution established in 1993 by Presidential Decree. The Law Number 39 of 1999 provided for its "existence, purpose, function, membership, principles, completeness, duties and authority." Komnas HAM carries out studies, research, counseling, monitoring, and mediation of human rights.[1760] Komnas HAM has also the authority to conduct investigations into human rights violations and supervise regional and central governmental policies. As such it is competent to address AI-based human rights violations.

AI Ethics and Data as a Compulsory Company Internal Policy

Pursuant to the Ministry of Communications and Informatics Regulation, any company having its line of business of developing artificial intelligence-based programs, must establish and implement its internal

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[1756] DLA Piper, *Data Protection Laws of the World: Indonesia* (Nov. 2020), https://www.dlapiperdataprotection.com/?t=law&c=ID

[1757] Lexology, *Q&A: the data protection legal framework in Indonesia* (Aug. 2020), https://www.lexology.com/library/detail.aspx?g=430e1444-ba8d-43d0-82dc-86ed44d416bc

[1758] DLA Piper, *Data Protection Laws of the World: Indonesia* (Nov. 2020), https://www.dlapiperdataprotection.com/?t=law&c=ID

[1759] Ibid.

[1760] Komnas Ham, *Legal Foundation,* https://www.komnasham.go.id/index.php/about/1/tentang-komnas-ham.html

policy on Artificial Intelligence Ethics and Data. This requirement is compulsory for a company to run such lines of business.[1761]

AI Initiatives

According to the United Nations E-Government Development Index (EGDI), the country is lagging in the implementation of digital services.[1762] The country's president, Joko Widodo made the promise to create a "citizen-centric digitised service government (*Pemerintahan Digital Melayani*) in the next five years." After winning his second term in April 2019, President Widodo announced that government agencies have been ordered to replace top civil servants with AI during 2020. This would consolidate the current top four tiers into two tiers.[1763] Bureaucratic reform was also revisited in the National AI strategy, in which it is one of the five priority areas.[1764]

The Indonesian government is facilitating the development of public cloud services that will provide AI services for the wider public. The services will also provide shared infrastructures and platforms through which digital companies can distribute metadata, data examples, as well as computing and learning services that are free to use by AI developers. Indonesia is also fostering a quadruple helix collaboration in AI research and innovation initiatives.

"The Indonesian government has also entered into a partnership with the U.N.-led Global Pulse Lab headquartered in Jakarta to further develop AI-based solutions for public policy programs. Together with the U.N. Country Team, Indonesian representatives identified national development priorities for applied research. The collaboration culminated in the AI-powered platform called Haze Gazer, a crisis analysis tool that combines satellite imagery of fire hotspots, census data, and real-time

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[1761] Jaringan Dokumentasi dan Informasi Hukum, *Kementerian Komunikasi and Informatika*, http://jdih.kominfo.go.id/produk_hukum/inventarisasi-terjemahan

[1762] United Nations: Department of Economic and Social Affairs, *2020 United Nations E-Government Survey* (July, 2020), https://www.un.org/development/desa/publications/publication/2020-united-nations-e-government-survey

[1763] Reuters, *Indonesia aims to replace some top civil service jobs with AI in 2020* (Nov. 28, 2019), https://uk.reuters.com/article/us-indonesia-economy/indonesia-aims-to-replace-some-top-civil-service-jobs-with-ai-in-2020-idUKKBN1Y20AE

[1764] Kecerdasan Artificial Indonesia, *AI towards Indonesia Vision 2045*, https://ai-innovation.id/stranas-ka

information captured from social media for disaster management efforts." [1765]

According to the OECD, Indonesia considers the availability of an integrated trustworthy health data system a key challenge for trustworthy AI in the health sector. [1766] "At the height of the COVID-19 outbreak, AI was integrated as part of the e-government response in the public health sector. The Ministry of Health used an AI-powered app called Telemedicine Indonesia to link patients with hospitals and doctors." [1767]

"Indonesia's booming internet economy is fueled by a "digital mindset" that drives the rapid adoption of AI technologies across the archipelago. It is home to native digital tech unicorns such as Bukalapak, Traveloka, and OVO. Two homegrown digital mammoths, Gojek and Tokopedia, have led Indonesia's mobile-first approach and adoption of AI solutions. As a one-stop shop multiservice platform, Gojek has developed scalable machine learning (ML) models to create personalized customer preferences. It leverages AI and ML to offer biometric security features such as fingerprint and facial recognition. Tokopedia is an e-commerce giant that leverages AL and ML capabilities for product development. It has also promoted AI research and talent development through its partnership with the University of Indonesia, with the 2019 launch of a deep learning supercomputer technology called NVIDIA DGX-1.246 The partnership also launched AI-based solutions like demand prediction, smart warehouses, and smart logistics." [1768]

"Bukit Algoritma (Algorithm Hill) was launched as a mega-tech hub located in Sukabumi, West Java to emulate the Silicon Valley spirit. The sprawling 888 hectares will be transformed into a special economic zone that will host Indonesia's start-ups specializing in AI, digital technology, biotech, and semiconductors. The ambitious multibillion-dollar industrial project hopes to become the country's center of research in neuroscience, nanotechnology, quantum technology, solar cell technology, and space exploration. With completion expected by 2030." [1769]

[1765] Asia Society Policy Institute, *Raising Standards: Data & Artificial Intelligence in Southeast Asia* (July 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

[1766] OECD G20 Digital Economy Task Force, *Examples of AI National Policies* (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf

[1767] Ibid

[1768] Asia Society Policy Institute, *Raising Standards: Data & Artificial Intelligence in Southeast Asia* (July 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

[1769] Ibid

Jakarta Smart City Initiative

In a bid to solve Jakarta's traffic gridlocks, flooding, and waste management, the city has turned to AI. The Indonesian government launched the Jakarta Smart City (JSC) initiative.[1770] Built on six pillars, the program uses AI to tackle the city's governance, people, living, mobility, economy, and environmental issues. The Smart City initiative encourages public comment to promote transparency of the local government's work and better public services.

There are currently 98 smart cities and 416 smart districts planned under Indonesia's 100 Smart Cities Plan. In 2019, President Widodo announced a new capital on the island of Borneo, to replace Jakarta. It is planned to be a smart city that will "rely heavily on sustainable smart city systems, cleantech and infrastructure run by emerging technologies such as 5G, AI and IoT (Internet of Things)." [1771]

These smart cities initiatives have been developed without proper legal framework and independent monitoring mechanism.

Adoption of AI by Ministries, and State-Owned Enterprises

Many Indonesian national and regional government-related entities begin to officially recognize the adoption of AI in their policies as well as solutions. The Indonesian Ministry of Health in its 2021-2024 Digital Transformation Strategy in the Health Sector recognizes the use of AI in its plan to enable big data analytics in medical sectors. The strategy is now supported by ministerial regulation that provides legal ground for the strategy's implementation.

Additionally, the Indonesian Train Agency/Kereta Api Indonesia, a state-owned enterprise, has recently rolled out a facial recognition system to support passenger verification system. "G42, the leading UAE-based AI and cloud computing company and global nonprofit ocean exploration organization OceanX, along with G-Tech Digital Asia (G-Tech), and the Government of the Republic of Indonesia via its Coordinating Ministry for Maritime Affairs and Investment (CMMAI) have announced the signing of a Letter of Intent to establish a collaboration to develop ocean research to help protect the marine environment. In furtherance of this proposed collaboration, G42 intends to deploy G42 Cloud's large-scale cloud infrastructure and services, remote sensing drone systems by Bayanat, a

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[1770] Techwire Asia, *AI to be a US$366b industry in Indonesia by 2030* (Oct. 20, 2020), https://techwireasia.com/2020/10/ai-to-be-a-us366b-industry-in-indonesia-by-2030/
[1771] Forbes, *As Jakarta sinks a new futuristic capital city will be built on Borneo*, (Jan. 20, 2020), https://www.forbes.com/sites/jimdobson/2020/01/20/as-jakarta-sinks-a-new-futuristic-capital-city-will-be-built-on-borneo/

publicly listed company at ADX in which G42 owns a majority stake, and cutting-edge marine genomics applications by G42 Healthcare in the support of OceanX's social welfare mission and its world-class marine research and media vessel the R/V OceanXplorer, to conduct an advanced, in-depth analysis of the coastal and oceanic environments."[1772]

EdTechs and Children Tracking

Human Rights Watch conducted an analysis of education technology (EdTech) products between March and August 2021 on the prevalence and frequency of tracking technology embedded in each product. This report is a global investigation of EdTech products that were endorsed by 49 governments for children's online education learning during the Covid-19 pandemic. Indonesia was one of the 49 countries analyzed.

"Based on technical and policy analysis of 163 EdTech products, Human Rights Watch finds that governments' endorsements of the majority of these online learning platforms put at risk or directly violated children's privacy and other children's rights, for purposes unrelated to their education. Of the 163 EdTech products reviewed, 145 (89 percent) appeared to engage in data practices that put children's rights at risk, contributed to undermining them, or actively infringed on these rights. These products monitored or had the capacity to monitor children, in most cases secretly and without the consent of children or their parents, in many cases harvesting data on who they are, where they are, what they do in the classroom, who their family and friends are, and what kind of device their families could afford for them to use." [1773]

"Most online learning platforms sent or granted access to children's data to third-party companies, usually advertising technology (AdTech) companies. In doing so, they appear to have permitted the sophisticated algorithms of AdTech companies the opportunity to stitch together and analyze these data to guess at a child's personal characteristics and interests, and to predict what a child might do next and how they might be influenced. Access to these insights could then be sold to anyone—advertisers, data

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[1772] Businesswire, G42, OceanX, G-Tech and the Indonesian Government to Collaborate to Advance Oceanic Research to Protect the Marine Environment (Nov. 18, 2022), https://www.businesswire.com/news/home/20221118005443/en/G42-OceanX-G-Tech-and-the-Indonesian-Government-to-Collaborate-to-Advance-Oceanic-Research-to-Protect-the-Marine-Environment
[1773] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments#6693

brokers, and others—who sought to target a defined group of people with similar characteristics online." [1774]

In Indonesia, Rumah Belajar, Quipper, Ruangguru, and Kelas Pintar apps collected children's advertising IDs. These apps tag children and identify their devices for the sole purpose of advertising to them. Kelas Pintar collected children's International Mobile Equipment Identity (IMEI) numbers. Rumah Belajar, Ruangguru, and Sekolah.mu collected precise location data and pinpoint where they are. Ruangguru and Sekolah.mu collected children's Wi-Fi SSID that shows the name of the Wi-Fi router that the mobile phone is connected to. Kelas Pintar granted access to children's contact data to third-party companies. Third-party SDKs were embedded in Kelas Pintar, Quipper, Ruangguru, Rumah Belajar, Sekolah.mu, and Zenius so they can track what children do.

Indonesia's Rumah Belajar, a government-built EdTech product sent children's data to AdTech companies. Rumah Belajar disclosed in their privacy policy that they collect and use students' data for behavioral advertising.

Lethal Autonomous Weapons

"In general, the Indonesian government has not shown an assertive and consistent attitude towards the development of LAWS, both at the national and the global level."[1775] However, in February 2023, Indonesia participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Indonesia, together with other countries, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[1776] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured

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[1774] Ibid.

[1775] Institute of International Studies, *Lethal Autonomous Weapons: A Primer for Indonesian Policy* (Jan. 12, 2021), https://www.stopkillerrobots.org/resource/lethal-autonomous-weapons-a-primer-for-indonesian-policy/

[1776] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[1777]

Human Rights

Indonesia has ratified the Universal Declaration of Human Rights. According to Freedom House, Indonesia is "partly free," with a total score of 58/100 in 2023. Freedom House reports that "Indonesia has made impressive democratic gains since the fall of an authoritarian regime in 1998, enjoying significant political and media pluralism and undergoing multiple, peaceful transfers of power. Significant challenges persist, including systemic corruption, discrimination and violence against minority groups, conflict in Papua, and the politicized use of defamation and blasphemy laws."[1778]

OECD / G20 AI Principles

Indonesia is a member of the G20 and endorsed the G20 AI Principles in 2019. According to the OECD, the Indonesia National AI Strategy (*Strategi Nasional Kecerdasan Artifisial*) addresses several OECD AI principles.[1779]

Indonesia hosted the G20 in 2022, following the Italian presidency in 2021, and preceding the Indian presidency in 2023. The 17th G20 Heads of State and Government Summit took place at the end of the year 2022 in Bali. "The G20 Digital Economy Ministers met in Bali, Indonesia on 1 September 2022 to deepen discussions on digital connectivity and post-COVID-19 recovery, digital skills and digital literacy, data free flow with trust and cross-border data flows, and other issues associated with digital transformation. These discussions are in line with the overarching theme of the Indonesian G20 Presidency, "Recover Together, Recover Stronger", and its priority issues on inclusive global health architecture, digital-based

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[1777] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[1778] Freedom House, *Freedom in the World 2023 – Indonesia,* https://freedomhouse.org/country/indonesia/freedom-world/2023

[1779] OECD AI Policy Observatory, *Indonesias National AI Strategy* (Dec. 9, 2021), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26968

transformation, and sustainable energy transition. The Bali Package serves as an essential milestone to pave the way toward global recovery through cooperation among the G20 members in Achieving a Resilient Recovery: Working Together for a More Inclusive, Empowering, and Sustainable Digital Transformation."[1780]

Although there was no reference to AI, However, was mentioned the importance of enhancing digital policies "to create an enabling, inclusive, open, fair and non-discriminatory digital economy that fosters the application of new technologies, allows businesses and entrepreneurs to thrive, and protects and empowers consumers, while addressing the challenges, related to digital divides, privacy, data protection, intellectual property rights, and online safety."[1781]

During the 2022 Digital Economy Ministers' Meeting (DEMM), the Indonesia G20 Presidency through its Digital Economy Working Group (DEWG), a specific G20 track to discuss digital economy issues, highlighted the importance of preparing society's fluency in emerging technologies including artificial intelligence. DEMM is the culmination of the DEWG efforts, consisting of representatives from G20 and international organizations. The discussion was made through the circulation of a survey to G20 members which was then reflected in the DEWG's outcomes such as the Chair's Summary and relevant deliverables.[1782]

UNESCO Recommendation on the Ethics of Artificial Intelligence

As a member of UNESCO, Indonesia along with 192 other member states, adopted the UNESCO Recommendation on the Ethics of AI in November 2021, the first global standard on the ethics of artificial intelligence.[1783] It remains to be seen which measures Indonesia will put in place to implement the Recommendation.

[1780] G20 Indonesia 2022, *G20 Digital Economy Ministers' Meeting 2022, Chair's Summary, The Bali Package,* (September 1, 2022), pp. 448-449, https://www.g20.org/content/dam/gtwenty/gtwenty_new/about_g20/previous-summit-documents/2022-bali/G20%20Bali%20Leaders%27%20Declaration,%2015-16%20November%202022.pdf

[1781] The White House, *G20 Bali Leaders' Declaration* (2022), https://www.whitehouse.gov/briefing-room/statements-releases/2022/11/16/g20-bali-leaders-declaration/

[1782] G20 Digital Economy Minister' Meeting 2022, *G20 Bali Leaders' Declaration* (Nov. 15-16, 2022), pp. 445-465, https://www.g20.org/content/dam/gtwenty/gtwenty_new/about_g20/previous-summit-documents/2022-bali/G20%20Bali%20Leaders%27%20Declaration,%2015-16%20November%202022.pdf

[1783] UNESCO, *UNESCO Adopts First Global Standard on the Ethics of Artificial Intelligence* (Nov 6, 2022),

Evaluation

Indonesia has endorsed the G20 AI Principles, the UNESCO Recommendation on the Ethics of AI and has developed a national AI strategy. With Indonesia's substantial AI investment and several significant government undertakings, including the Jakarta Smart City Initiative, the adoption of a new data protection law and the establishment of a new supervisory authority are positive steps toward ensuring trustworthy AI.

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https://www.unesco.org/en/articles/unesco-adopts-first-global-standard-ethics-artificial-intelligence

Iran

National AI Strategy
"Digital Iran,"[1784] a national road map for the advancement of technology, outlines Iran's digital transformation agenda. The Digital Iran framework has three layers: Enabler, Application, and Impact.[1785] The enabler layer consists of six pillars, regulation, security, infrastructure, identity, literacy, and open data. The application layer includes digital society, digital government, and digital business and the impact layer covers the social, economic, and environmental dimensions. The vision of the framework is to build "a healthy cooperative society coupled with the smart economy, sustainable development and effective governance with transparency as a result of utilizing digital technologies." The framework is implemented through 13 strategies, 30 policies and 42 confirmed projects.

The Information & Communications Technology (I.C.T.) Minister of Iran inaugurated the "AI Innovation and Development Center" in February 2020.[1786] The mission of the center is to build partnerships with industries, businesses, universities and research institutes and international centers to define and implement joint research and application projects in AI and provide infrastructure and data needed for researchers, start-up businesses and various industrial, agricultural and e-government sectors.[1787]

In October 2022, the center issued the "Draft Iran's National AI Development Roadmap." This road map was compiled using the approach of the Supreme Council of Science, Research, and Technology, which involves comparative studies, environmental analysis, surveying of experts, and vision development.[1788] This publication is divided into two sections: AI use cases and AI enablers. In the application cases section, the objective is to employ AI in high-priority areas like healthcare, transportation, agriculture, education, industry, and the environment. In the second section,

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[1784] Iran Digital Transformation Project, *Digital Iran: National Roadmap Executive Summary 2020-2025*, http://irandigitaltransformation.ir/wp-content/uploads/2020/06/Digital-Iran-Roadmap-Executive-Summary.pdf

[1785] Iran Digital Transformation Project, *Digital Iran: National Roadmap Executive Summary 2020-2025*, https:///irandigitaltransformation.ir/wp-content/uploads/2020/06/Digital-Iran-Roadmap-Executive-Summary.pdf.

[1786] National Center for the Development of AI Innovation, http://www.ai-center.ir/portal/home/.
25D9%2585%25D9%2586%25D8%25B5%25D9%2588%25D8%25A8-
%25D8%25B4%25D8%25AF?_x_tr_sl=fa&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=nui

[1787] *Ibid.*

[1788] I.C.T Minister, *The draft document National Artificial Intelligence Development Roadmap* (Oct. 17, 2022), .https://www-itrc-ac-ir.translate.goog/news/58197?_x_tr_sl=fa&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=nui

the most essential topics investigated include AI enablers, the training of expert human resources, infrastructures, standards, data, and AI ethics.[1789]

The Ministry of I.C.T.,[1790] responsible for implementation of modern technologies in the IT sector, supports AI developments by hosting international technology[1791] conferences, cultivation, and creation of new industries with the use of digital technologies, and investment in academic research.[1792]

Data Protection

There are currently no comprehensive data protection laws in place in Iran.[1793] In February 2018, the I.C.T. Minister unveiled the first drafts of five newly proposed bills for internet and cyberspace regulation in Iran. The legislation addresses e-government, electronic identification, and the responsibilities of service providers, electronic financial transactions, and data protection, respectively.[1794] A draft bill on data protection and privacy was presented to the cabinet in July 2018. The Draft is currently under expert revision to align it with the GDPR.[1795] According to the deputy

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[1789] I.C.T Ministry, *AI Innovation and Development Center Draft Iran's National AI Development Roadmap* (Oct. 17, 2022), http://ai-center.ir/portal/file/?237143/%D9%BE%D9%8A%D8%B4%E2%80%8C%D9%86%D9%88%D9%8A%D8%B3-%D9%86%D9%82%D8%B4%D9%87-%D8%B1%D8%A7%D9%87-%D8%AA%D9%88%D8%B3%D8%B9%D9%87-%D9%85%D9%84%D9%8A-%D9%87%D9%88%D8%B4-%D9%85%D8%B5%D9%86%D9%88%D8%B9%D9%8A.pdf

[1790] Information Telecommunication and Technology (I.C.T), https://www.ict.gov.ir/en/topmainmenu/aboutus

[1791] Information Technology & Innovative CIT Solutions, 2*0th International Exhibition of Telecommunications* (2021), http://www.irantelecomfair.com/en/ and https://calendar.iranfair.com/en/companies/index/252/The-21st-International-Exhibition-of-Telecommunications-Information-Technology-Innovative-CIT-Solution

[1792] AmirKabir University of Technology, *The "Simorgh" Supercomputer,* (June, 2021), https://aut.ac.ir/content/7995/The-"Simorgh"-Supercomputer-was-Launched-at-AUT

[1793] Filter Watch, *Data Insecurity on Iran's Localised Internet,* (2020)*,* https://filter.watch/en/2020/06/19/data-insecurity-on-irans-localised-internet/

[1794] Article 19, *Iran: Personal Data Protection and Safeguarding*, (June, 2019) https://www.article19.org/wp-content/uploads/2019/06/Legal-Analysis-of-Draft-Data-Protection-Act.pdf

[1795] MehrNews, *The Persinal Dta Protection Bill*, https://www.mehrnews.com/news/5420106/%D9%84%D8%A7%DB%8C%D8%AD%D9%87-%D8%AD%D9%81%D8%A7%D8%B8%D8%AA-%D8%A7%D8%B2-%D8%AF%D8%A7%D8%AF%D9%87-%D9%87%D8%A7%DB%8C-%D8%B4%D8%AE%D8%B5%DB%8C-%D8%A8%D9%87-%D8%AC%D8%B1%DB%8C%D8%A7%D9%86-%D8%A7%D9%81%D8%AA%D8%A7%D8%AF

minister of I.C.T., the Government will use a special working group for the digital economy to approve the bill.[1796] The draft law provides for the establishment of the Supervisory Board of Personal Data which would be tasked with receiving and processing stakeholder complaints in order to protect personal data. In the absence of an overarching data privacy law, the legal framework for privacy derives from a combination of other laws and regulations dealing with data protection alongside additional issues. Such legislation includes the Law on Publication and Access[1797] to Data 2009, the Electronic Commerce Law 2004,[1798] and the Cybercrime Law 2009.[1799]

The Iranian Communications Regulatory Authority has access to a web application known as "SIAM," which allows for the remote manipulation of cellular connections. This application is part of Iran's data restriction, which may help explain why it was implemented. SIAM is a computerized system that operates in the background of Iranian cellular networks, giving its operators a wide range of options for remotely executing commands to modify, interrupt, and monitor customers' phone use. These tools may reveal the data links in a crawl, decrypt phone calls, trace the movements of people or large groups, and generate complete metadata summaries of who spoke to whom and when.[1800]

Freedom of Internet and Digital Rights

In February 2020, the Supreme Council for Cyberspace (SCC), Iran's top internet policymaking body, initiated meetings to set five-year targets for the expansion of the National Information Network (NIN), the country's localized internet architecture. The plan was approved by the SCC in September 2020.[1801] The NIN established several targets to improve

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[1796] *Ibid.*

[1797] Ministry of Culture and Islamic Guidance, *Law on Dissemination of and Free Access to Information,(2009),* (Chrome Translation Services) https://foia.farhang.gov.ir/en/law

[1798] Iran Ministry of Commerce, *Electronic Commerce Law (2010)*, https://www.wipo.int/edocs/lexdocs/laws/en/ir/ir008en.pdf

[1799] International Labour Organization, *Database of National Labour, Social Security and Related Human Rights Legislation*, *Criminal and penal law (2009), Law No. 71063 on Computer Crimes,*http://ilo.org/dyn/natlex/docs/ELECTRONIC/91715/106512/F1311829502/IRN91715.pdf

[1800] The Intercept, *Hacked documents: how Iran can track and control protesters' phones* (Oct. 28, 2022), https://theintercept.com/2022/10/28/iran-protests-phone-surveillance/

[1801] Filter Watch, *Policy Monitor* (Sept, 2020), https://filter.watch/en/2020/10/26/policy-monitor-september-2020/

internet access.[1802] According to the ICT Minister, more than 120 major projects have been defined under the National Information Network (NIN) in the SCC.[1803]

The Telecommunication Company of Iran (TCI), which is run by the ICT Ministry, controls internet traffic flowing in and out of the country.[1804] The Internet dominance creates opportunity for TCI to monitor online activities, where the majority of TCI's shareholder is the Islamic Revolutionary Guard Corps (IRGC), a powerful branch of the security forces that also controls large portions of the economy.[1805]

Iran's parliament has been drafting a bill that would impose additional limitations on Iranians' internet access. The measure requires overseas technology businesses to have a legal representation in Iran to comply with Iranian law and cooperate with Iranian authorities.[1806] The Iranian government has long monitored individuals, prosecuted them for online expressions, and banned online areas. In addition, the measure intends to prohibit the creation and distribution of censorship "circumvention technologies" (VPNs) that are routinely used in Iran to access a wide variety of blocked websites.[1807] In the meantime, Iranian authorities are deliberating over the concept of a national internet, which appears to entail denying users access to international search engines, news websites, and email servers in favor of providing them with alternatives developed and controlled by the Islamic Republic of Iran.[1808]

Since the 16th of September 2022, when the most recent wave of protests began, the Iranian government has utilized its investments in its

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[1802] Filter watch, P*olicy Monitor* (Feb, 2020), https://medium.com/filterwatch/filterwatch-policy-monitor-february-2020-41db0293f2e0

[1803] Iran Press News Agency, High-speed Internet and NIN, focus of ICT Ministry (Dec. 7, 2021), https://iranpress.com/content/51025/high-speed-internet-and-nin-focus-ict-ministery

[1804] Small Media Research, *Iranian Internet Infrastructure and Policy Report* (2015), https://smallmedia.org.uk/media/articles/files/IIIP_Jul15.pdf#page=9

[1805] Gholam Khiabany and Annabelle Sreberny, *Blogistan: The Internet and Politics in Iran*, London:IB Tauris, 2010), p.5.https://www.bloomsburycollections.com/book/blogistan-the-internet-and-politics-in-iran/?clearSearch

[1806] Article 19, *Iran: Parliament's "Protection Bill" will Hand Over Complete Control of the Internet to Authorities*, (Aug. 5, 2021), https://www.article19.org/resources/iran-parliaments-protection-bill-will-hand-over-complete-control-of-the-internet-to-authorities/

[1807] Human Rights Watch, *Iran Report (2022),* https://www.hrw.org/world-report/2022/country-chapters/iran

[1808] Deutsche Welle, *Iran tightens grip on internet freedom* (Feb. 15, 2022), https://www.dw.com/en/iran-tightens-grip-on-internet-freedom/a-60784015

national digital network to organize Internet shutdowns and has also expanded various forms of censorship. Instagram and WhatsApp are among the online services that have been disabled. And authorities are currently focusing on Virtual Private Network (VPNs). To make it more difficult for Iranians to use VPNs to avoid censorship, the authorities blocked the Google Play and Apple App Store apps, which provided a quick and easy method for installing VPNs. The government then pushed it further by restricting the websites of most companies that could provide these applications. Lastly, they are disconnecting VPN servers that are accessible from Iran.[1809]

Digital ID (National Smart Card)

Iran is currently implementing digital IDs as part of Iran's e-government program.[1810] Iran's Executive Council of Information Technology has built a new digital platform as part of its ongoing e-government initiatives. In addition to two pilots with the Ministry of Agriculture and the Ministry of Culture and Islamic Guidance, the council also announced the addition of the Ministry of Cooperatives Labor and Social Welfare, the Ministry of Economic Affairs and Finance, the Iranian Health Insurance Organization, the Ministry of Welfare and Social Security, and the Central Insurance of Iran for the next phase of the digital government.[1811] Iran's Law Enforcement Forces signed an agreement with an Iranian digital ID and biometric firm, to acquire a digital ID detection authentication platform.[1812] The digital ID platform obtains 5 to 15-second selfie videos and then runs it through an ID liveness detection algorithm to verify user identity against a user's original image registered with Iran's Civil Registration Organization.

[1809] Reporters Without Borders, How the Islamic Republic has enslaved Iran's Internet (Oct. 5, 2022), https://rsf.org/en/how-islamic-republic-has-enslaved-iran-s-internet.

[1810] Biometric Update, *Iran unveils new e-government components as digital ID importance grows* (2021), https://www.biometricupdate.com/202103/iran-unveils-new-e-government-components-as-digital-id-importance-grows

[1811] Ibid.

[1812] Biometric Updates, *"UID to supply biometric digital ID app to Iran's national police, 2021* https://www.biometricupdate.com/202102/uid-to-supply-biometric-digital-id-app-to-irans-national-police and https://www.ilna.news/بخش-فن-آوری-158/1036837-امضای-تفاهم-نامه-همکاری-بین-پلیس-شرکت-یوآیدی

Facial Recognition

Iran is actively integrating facial recognition and biometrics into its law enforcement system for border protection.[1813] In 2015, the Iranian government launched a biometric national identity card - a card "issued to all new applicants and to anyone renewing an expired national identity card."[1814] Iran's banking sector is adopting biometric methods and requires customers to provide their smart identity for many banking transactions. Iranian officials have also announced plans that would require citizens to verify their identity using the smart identity card to access the internet.[1815]

Iranian authorities plan to use facial recognition technology on public transport to enforce new hijab law.[1816] The secretary of Iran's Headquarters for Promoting Virtue and Preventing Vice, "announced in a recent interview that the government was planning to use surveillance technology against women in public places following a new decree signed by the country's hardline president, Ebrahim Raisi, on restricting women's clothing.[1817]

Lethal Autonomous Weapons

The Iranian military is very interested in the development of AI & Autonomous Weapon systems in the pursuit of force-multiplying asymmetric warfare capabilities. At the Human Rights Council in May 2013, Iran expressed interest in opening multilateral talks on lethal autonomous weapons systems. Iran however has not commented on the concerns raised by removing human control from the use of force or supported proposals to negotiate a new international ban treaty. Iran is not

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[1813] ICAO Regional Seminar, Iranian ePassport and Border Management Technical Report, (2016), https://www.icao.int/Meetings/icaotrip-Iran-2016/Documents/Presentations/D2%20S4%20EBRAHIMI.pdf

[1814] Minority and Indigenous Trends, Case Studies, *Middle East and North Africa: Iran*, (2020), .https://minorityrights.org/trends2020/

[1815] Identity Review, *Iran Begins Integrating Facial Recognition for Better Border Protection*, (secondary resource) https://identityreview.com/iran-begins-integrating-facial-recognition-for-better-border-protection/

[1816] Gaurdian, *Iranian Authorities to use facial recognition to enforce new hijab law* (Feb. 5, 2022), https://www.theguardian.com/global-development/2022/sep/05/iran-government-facial-recognition-technology-hijab-law-crackdown

[1817] Radio Free Europe, *Iranian President Signs Decree Further Restricting How Women Can Dress* (Aug. 5, 2022), https://www.rferl.org/a/iran-women-dress-restrictions-raisi/31989759.html

a party to the Convention on Conventional Weapons (CCW), but it attended CCW meetings on killer robots in 2016 and 2018-2019.[1818]

The Chief Commander of Iran's Islamic Revolution Guards Corps (IRGC) stated in July 2022 that the country achieved the AI required to direct drones and ballistic missiles while under sanction.[1819] "AI technology enables an autonomous aircraft to fly more than 2,000 kilometers from any point and hit a moving target or a specific location,"[1820] he added. Shortly after this interview, another IRGC commander verified the use of AI to beat the enemy and stated that the success was due to the collaboration of universities and military departments.[1821]

In October 2022, Iran was not among the 70 states that endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an international framework of rules and constraints.[1822] In this joint statement, States declared that they "are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[1823]

EdTech and Children Tracking

In May 2022, Human Rights Watch published a global investigative report on the education technology (EdTech) endorsed by 49 governments, including Iran, for children's education during the pandemic. Based on

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[1818] Human Rights Watch, *Stopping Killer Robots: Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control* (2020)*,* https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and#

[1819] Iran Press News Agency, *Iran achieves ballistic missile guidance tech under sanctions* (July. 28, 2022), https://iranpress.com/content/62680/iran-achieves-ballistic-missile-guidance-tech-under-sanctions.

[1820] *Ibid.*

[1821] Iran Press News Agency, Iran defeated enemy with artificial intelligence (Sep. 7, 2022), https://iranpress.com/content/66234/iran-defeated-enemy-with-artificial-intelligence .

[1822] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly,* (2022), https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

[1823] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

technical and policy analysis of the Shad App, owned and provided by Iran, Human Rights Watch found that the government endorsement of this online learning platform put at risk and directly violated children's rights.

It results from the report that "[t]eachers in Iran told Human Rights Watch that the government compelled those in public schools to use Shad, an app built by Iran's Education Ministry for online learning during Covid-19. One teacher said: "The principal called and said that if I do not install the Shad app, I would be recorded as absent. The authorities do not accept teaching in Telegram and WhatsApp. Students have also been told that if you are not in this app, your score will not be approved and will not be sent to the [school]." In October 2021, the Iranian government reported more than 18 million active users of Shad." Technical analysis of Shad's code by Human Rights Watch found that the app can collect children's precise location data, the time of their current location, the child's last known location, their Wi-Fi SSID, IP address, the child's contacts, and any saved photos of their contacts.

EdTech products in Iran and other countries sent children's data to AdTech companies that specialize in behavioral advertising or whose algorithms determine what children see online. According to Human Rights Watch, in line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop, refine, and enforce modern child data protection laws and standards, and ensure that children who want to learn are not compelled to give up their other rights in order to do so.[1824]

Human Rights

Iran is a signatory to the UDHR in 1948.[1825] However, in 2023, the Freedom House Index indicated Iran as a "Not Free" country, with a rating of 12/100, a slight drop from 2022 (14/100) and 2021(16/100).[1826] Among

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[1824] Human Rights Watch, _How Dare They Peep into My Private Life_ (May. 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[1825] The United Nations, Universal Declaration on Human Rights (1948), https://www.un.org/en/about-us/universal-declaration-of-human-rights

[1826] Freedom House, Iran - _Freedom in the World – 2023,_ https://freedomhouse.org/country/iran/freedom-world/2023; Iran - _Freedom in the World_

the key developments in 2022 explaining Iran's decreased score, Freedom House noted, "Protesters mounted mass demonstrations in more than 100 cities across the country beginning in September. They called for freedom and denounced state violence against women in response to the death of Mahsa Amini, a 22-year-old Kurdish woman who had been arrested and beaten by the so-called morality police in Tehran for allegedly not wearing her hijab properly. Security forces responded to the protests with a violent crackdown (…). The deaths of nearly 500 people had been confirmed by year's end, and an estimated 14,000 people were arrested, including protesters as well as journalists, lawyers, activists, artists, and athletes who voiced support for the movement. The crackdown was particularly harsh among ethnic and religious minority populations in Iran's Kurdish region and the province of Sistan and Baluchistan.[1827] (…) The regime continued a recent trend of sharp increases in the overall number of executions, reportedly putting more than 500 people to death over the course of the year—the highest such figure since 2017. The surge was driven in part by a rise in the number of executions for drug-related offenses.

According to a 2023 Human Rights Watch report on Iran, internet freedom remains highly restricted and State-aligned cyber operations spread disinformation and manipulated the online space. Iran and its judicial system have shown little inclination to curb or confront serious human rights violations perpetrated by Iranian security agencies. The country's security and intelligence apparatus, in partnership with Iran's judiciary, harshly crack down on any form of dissent, including through excessive and lethal force against protesters.[1828]

The Iranian authorities' suppression of recent protests in Iran is the latest in a cycle of attacks perpetrated by the Iranian authorities against the people who are voicing their concerns. The cycle of attacks started in Iran between December 2017 and January 2018 and continued thereafter. [1829] According to Press TV, in an open letter that was signed by 227 of Iran's 290 members of Parliament, the MPs ask for demonstrators to be taught a

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– 2022, https://freedomhouse.org/country/iran/freedom-world/2022; *Iran - Freedom in the World – 2021,* https://freedomhouse.org/country/iran/freedom-world/2021

[1827] Amnesty International, *Iran: Urgent international action needed to stop mass killings of Baluchi protesters* (Nov. 10, 2022),
https://www.amnesty.org/en/documents/mde13/6193/2022/en/

[1828] Human Rights Watch, *Iran Report* 2023, https://www.hrw.org/world-report/2023/country-chapters/iran

[1829] Amnesty International, *Iran: More than 760,000 people around the world calling for UN investigative mechanism on Iran* (Nov. 3, 2022),
https://www.amnesty.org/en/latest/news/2022/11/iran-more-than-760000-people-around-the-world-calling-for-un-investigative-mechanism-on-iran/

"good lesson" as a means of discouraging such individuals who challenge the authority of the Iranian government.[1830]

OECD / G20 Principles

Iran has neither endorsed the OECD / G20 AI Principles, nor did it define ethical norms and standards for AI.[1831]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Iran is one of signatories to the UNESCO recommendation on AI Ethics which aims to deliver the advantages of technology while reducing associated human rights risks.[1832] It remains to be seen which steps Iran will take to implement the Recommendation.

Evaluation

Iran has launched the "Digital Iran" framework to oversee and implement modern technologies, recently drafted an AI roadmap and endorsed the UNESCO Recommendation on AI Ethics. The absence of a comprehensive data protection law and independent oversight mechanism as the country seeks to expand national biometric identification and systems for facial recognition is however concerning. This report has not found any evidence on public participation regarding AI and data protection law and policy reforms. This casts doubts on the propensity of these initiatives to effectively safeguards individual rights. Iran is also engaged in the race for developing lethal autonomous weapons while not partaking in any international efforts to regulate, let alone prohibit, their use.

[1830] CNN, *Iranian lawmakers demand 'no leniency' for protesters as mass demonstrations continue* (Nov. 8, 2022), https://edition.cnn.com/2022/11/06/middleeast/iran-lawmakers-judiciary-letter-protests-intl-hnk/index.html

[1831] *State of Implementation of OECD AI Principles* (June 2021), https://www.oecd-ilibrary.org/science-and-technology/state-of-implementation-of-the-oecd-ai-principles_1cd40c44-en?_ga=2.209594642.1644595301.1637327684-1452510560.1637152644

[1832] First-ever Global Agreement on the Ethics of Artificial Intelligence (Nov, 2021), https://news.un.org/en/story/2021/11/1106612

Ireland

National AI Strategy

Ireland's national enterprise strategy, the Economic Recovery Plan and Enterprise 2025 Renewed, set out Ireland's ambition to be at the frontier of disruptive technologies, including AI. In 2019, Ireland published the Future Jobs Ireland Plan, which included a commitment to develop Ireland's national AI strategy and create a Top Team on Standards for AI to focus on increasing Ireland's AI development and assisting AI enterprises.[1833]Ireland's Department of Enterprise, Trade, and Employment (DETE) published the national AI strategy AI - Here for Good in 2021 that set out a long-term AI roadmap. [1834]

The aim of AI - Here for Good is to make Ireland "an international leader in using AI to the benefit of our population, through a people-centered, ethical approach to AI development, adoption and use."[1835] Its objectives are grouped into eight strands: AI and Society; A Governance Ecosystem that Promotes Trustworthy AI; Driving Adoption of AI in Irish Enterprise; AI Serving the Public; A Strong AI Innovation Ecosystem; AI Education, Skills and Talent; Supportive and Secure Infrastructure for AI; and Implementation of the Strategy.

Ireland's national AI policy states that "ensuring explainability, accountability, and fairness" and addressing discrimination are some of the main challenges to be addressed through AI regulation. Ireland's "Strategic Approach to AI" emphasizes the importance of AI that is "accountable and acceptable to society." Under its objective to create an agile AI governance and regulatory framework, Ireland recognizes the risk of unfair discrimination and unequal treatment arising from biased training data, design, and use, along with challenges of "explainability, accountability, and fairness." The Top Team on Standards for AI is responsible for developing certification schemes and codes of conduct for AI to determine or demonstrate fairness, estimate bias in training data, develop auditing mechanisms, and support GDPR rights. This team, alongside similar Ireland government efforts, will work towards creating a common EU framework

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[1833] Government of Ireland, *Future Jobs Ireland 2019: Preparing Now for Tomorrow's Economy* (Mar., 2019), https://enterprise.gov.ie/en/Publications/Publication-files/Future-Jobs-Ireland-2019.pdf

[1834] Department of the Taoiseach Press Release, *Taoiseach and Minister Troy launch Government Roadmap for AI in Ireland* (July 8, 2021), https://www.gov.ie/en/press-release/f4895-taoiseach-and-minister-troy-launch-government-roadmap-for-ai-in-ireland/

[1835] Department of Enterprise, Trade and Employment, *AI - Here for Good: National Artificial Intelligence Strategy for Ireland* (last updated Sept.15, 2021), https://www.gov.ie/en/publication/91f74-national-ai-strategy/

for trustworthy and innovative AI to create a coherent and borderless single AI market.[1836]

Ireland's National AI Strategy favors the Council of Europe's Ad Hoc Committee on AI (CAHAI) for its explicit aim to ensure protection of democracy and rule of law and its "mix of binding and non-binding legal instruments." Ireland seeks to apply the Council of Europe's Ethical Charter on the Use of AI in Judicial Systems to promote rule of law in the use of AI in the justice sector.

Ireland's Department of Enterprise, Trade, and Employment (DETE) is currently spearheading Ireland's national AI policy, which lists strategic actions to be conducted by various Irish agencies, including the Department of Environment, Climate and Communications, the Department of Justice, the National Standards Authority of Ireland, and the Department of Children, Equality, Disability, Integration, and Youth. It has also established the Top Team on Standards for AI to develop certification schemes and codes of conduct to address AI at different stages of development.

Strand 8 of AI - Here for Good's, "Implementation of the Strategy," lists several entities that compose Ireland's "whole of Government strategy" for AI. The Enterprise Digital Advisory Board will soon be established to represent government departments, businesses, and AI experts, oversee the implementation of business elements of the nNational AI sStrategy, and advise the Irish Government on driving enterprise adoption of AI. The AI Ambassador, a member of the Enterprise Digital Advisory Board, and the GovTech Delivery Board, which is responsible for AI adoption in the public sector, are other entities that Ireland plans to incorporate into its governance of AI.

Following Ireland's 2021 Strategy release, Harnessing Digital - The Digital Ireland Framework, a new national digital strategy, was unveiled in February 2022 by the Department of the Taoiseach to drive and support the digital transition across the Irish economy and society.[1837] This high-level framework outlines a roadmap to support Ireland's aspiration to be a digital leader at the center of European and global digital developments, with a strong emphasis on inclusion, security, and safety, anchored by strong governance and a well-resourced regulatory environment.

[1836] Kingdom of the Netherlands, INNOVATIVE AND TRUSTWORHTY AI: TWO SIDES OF THE SAME COIN (Oct. 8, 2020), https://www.permanentrepresentations.nl/documents/publications/2020/10/8/non-paper---innovative-and-trustworthy-ai

[1837] Department of the Taoiseach, Harnessing Digital - The Digital Ireland Framework (Feb. 1, 2022), https://assets.gov.ie/214584/fa3161da-aa9d-4b11-b160-9cac3a6f6148.pdf

This framework's objectives are grouped into four strands: Digital Transformation of Business; Digital Infrastructure; Skills; Digitalization of Public Services. The Irish government has identified several digital risks which these objectives aim to mitigate. For instance, this Strategy offers pragmatic and effective mitigation solutions to risks around non-digital adopting organizations and those that might be digitally "left behind" as Ireland's society becomes more technologically literate.

Public Participation

To receive engagement and input in the development of its National AI Strategy, Ireland held a public consultation process from October 16 to November 7, 2019, which was open to all stakeholders and interested parties. This consultation aimed to "better understand the views of the public on the opportunities, enablers and challenges for AI in Ireland and to gather views on key areas and issues that should be addressed by the strategy."[1838]

Strand 1 of AI - Here for Good, "AI and Society," asserts that Ireland "must also prioritize measures to raise awareness about AI." To that end, Ireland plans to appoint an "AI ambassador to promote awareness among the public and businesses of the potential that AI offers." This AI ambassador is expected to engage with the public, lead a "national conversation around the role of AI" with an emphasis on "an ethical and compliant approach," and champion AI as a positive force for Ireland. Ireland published a call for Expression of Interest for the AI Ambassador position on October 26, 2021, and applications were due November 12, 2021.[1839] In May 2022, Dr. Patricia Scanlon was appointed to serve for one year, with a possibility of extension, as Ireland's first AI Ambassador. During the drafting phase of the new digital strategy, Harnessing Digital – The Digital Ireland Framework, no public consultation announcement occurred, removing the public's ability to offer feedback.Ireland plans to convene a "Youth Assembly on AI" to discuss young people's views of AI's "benefits, risks and impacts on different groups in society." University College Cork (UCC) currently hosts "The Elements of AI," a massive open online course (MOOC) made available to all EU member states. Ireland

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[1838] Department of Enterprise, Trade and Employment, *National AI Strategy for Ireland: Public Consultation Report* (2020), https://enterprise.gov.ie/en/Consultations/Consultations-files/AI-Strategy-Public-Consultation-Report.pdf

[1839] Department of Enterprise, Trade and Employment, *Call for Expression of Interest: Artificial Intelligence (AI) Ambassador* (Oct. 26, 2021), https://www.gov.ie/en/publication/07668-call-for-expression-of-interest-artificial-intelligence-ai-ambassador/

plans to use "Elements of AI," which is freely available, "to deliver AI education to at least 1% of the population. As part of the Ireland's AI - Here for Good, young Irish people were asked for their thoughts on AI and its potential applications. The inaugural National Youth Assembly on Artificial Intelligence was held at Trinity College Dublin on October 12, 2022, with 43 young people aged 13 to 23.[1840]

Public Trust in AI

Strands 1 and 2 of *AI - Here for Good* are aimed at "building public trust in AI." Strand 1 seeks to build public trust in AI through public awareness programs and research and grants to develop AI applications for societal good and sustainability, including health and climate change. Strand 2 addresses the need for a "robust governance framework to safeguard against [AI] risks and underpin public trust in AI." It establishes three pillars that Ireland will use to ensure a strong AI governance framework: 1) "an agile and appropriate framework," 2) "active promotion of ethics guidance and frameworks," and 3) "a robust system of standards and certification."

Ireland has played an active part in EU discussions of the AI Act and the EU's prior work related to AI, and Ireland's AI strategy states that it will continue to do so. Ireland's National AI Strategy endorses the EU AI Act as a "'smart mix' of voluntary and mandatory measures [that] will help to protect our people, facilitate innovation in AI and respect our democratic values," Strand 2 emphasized the AI Act's voluntary and self-regulatory oversight of non-high-risk AI and its integration of impact assessments, codes of practice, and ethical guidelines.

Data Protection

Since Ireland is an EU Member State, the General Data Protection Regulation (GDPR)[1841] is directly applicable in Ireland and to Irish people. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and

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[1840] ADAPT, *ADAPT joins the National Youth Assembly on Artificial Intelligence* (Nov. 2, 2022), https://www.adaptcentre.ie/news-and-events/adapt-joins-the-national-youth-assembly-on-artificial-intelligence/
[1841] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

unnecessary administrative burdens."[1842] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018.

Regarding the activities of law enforcement authorities, the EU Data Protection Law Enforcement Directive (LED).[1843] protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[1844] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[1845] The LED also requires for Member States, including Italy, to enable data subjects to exercise their rights via national data protection authorities.[1846]

The 2018 Irish Data Protection Act both supplements the GDPR and implements the LED in Irish law.

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

[1842] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en
[1843] Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA, *National transposition – Slovenia*, https://eur-lex.europa.eu/legal-content/EN/NIM/?uri=CELEX:32016L0680
[1844] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en
[1845] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504
[1846] Article 17 of the LED.

Ireland is also a member of the Council of Europe. It signed but has not yet ratified[1847] the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[1848]

AI Oversight

Established under the Data Protection Act of 2018, the Data Protection Commission (DPC) is Ireland's national independent supervisory authority responsible for upholding the data protection rights of individuals in the EU. The DPC is charged with monitoring the application of the GDPR, including its transparency and automated decision-making provisions, and other Irish and EU regulatory frameworks and directives. The DPC has faced criticism from members of the European Parliament for failing to enforce the GDPR by choosing to bring a legal proceeding in the *Schrems II* case instead of making a decision on its own, issuing only one GDPR sanction out of thousands of complaints, and failing to reach a draft decision on any case referred to Ireland in 2018. On March 25, 2021, the European Parliament passed a resolution expressing its concern with the slow pace of the Irish DPA and calling for faster investigations to show EU citizens that "data protection is an enforceable right."[1849] On May 20, 2021, the European Parliament voted in favor of a resolution calling for the European Commission to open an infringement procedure against the DPC.[1850] In December 2022, the EDPB overturned a previous draft decision by the DPC that took the view that Meta's bypass of the GDPR was legal and the EDPB requested changes in the decision on WhatsApp, as well as further investigations into the core violations of WhatsApp. In January 2022, the DPC adapted its limited decision, but refused to investigate other matters, as ordered by the EDPB. According to noyb, "the DPC threatens to bring a lawsuit against its European partners."[1851] In January 2022 as well, the European Commission defended the Irish Data Protection

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[1847] Council of Europe, *Chart of signatures and ratifications of Treaty 223* (status as of March 22, 2023), https://www.coe.int/en/web/conventions/full-list?module=signatures-by-treaty&treatynum=223

[1848] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[1849] European Parliament, *Resolution on the Commission evaluation report on the implementation of GDPR two years after its application* (Mar. 25, 2021), https://www.europarl.europa.eu/doceo/document/TA-9-2021-0111_EN.html

[1850] European Parliament, *Resolution on the ruling of the CJEU of 'Schrems II'* (May 20, 2021), https://www.europarl.europa.eu/doceo/document/TA-9-2021-0256_EN.pdf

[1851] noyb, *Just € 5,5 Million on WhatsApp. DPC finally gives the finger to EDPB* (Jan. 19, 2023), https://noyb.eu/en/just-eu-55-million-whatsapp-dpc-finally-gives-finger-edpb

Commissioner by stating that "there is no proof that the DPC didn't follow the Irish data protection rules or that the cooperation mechanism wasn't employed correctly."[1852] Complex cases, especially those involving disputed issues such as WhatsApp, may take a long time. As a result, the European Commission refused to comment on or initiate infringement proceedings against a DPA for its views on a particular subject. The failure of the DPC to exercise enforcement powers now raises concerns about the Commission's ability to safeguard fundamental rights about AI.

The Irish DPA is a member of the Global Privacy Assembly (GPA) since 2002. Although the DPA endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[1853] it endorsed neither the 2020 GPA Resolution on AI Accountability[1854] nor the 2022 GPA Resolution on Facial Recognition Technology.[1855]

Algorithmic Transparency

Although it has not yet ratified the Protocol amending the Convention 108 which provides for algorithmic transparency, Ireland is subject to the GDPR. Irish people have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[1856]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[1857] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that

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[1852] Hunton Privacy Blog, *European Commission Defends Irish Data Protection Commissioner* (Jan. 13, 2022), https://www.huntonprivacyblog.com/2022/01/13/european-commission-defends-irish-data-protection-commissioner/

[1853] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1854] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[1855] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[1856] See Recital 63 and Article 22 of the GDPR.

[1857] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

"States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[1858]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[1859]

Although Ireland has not created its own AI ethical guidelines, its National AI Strategy incorporates the seven requirements of the EU High-Level Expert Group (EU HLEG) on AI's Ethics Guidelines for Trustworthy AI. UCC's Insight Centre currently hosts an online version of EU HLEG's Assessment List for Trustworthy AI, as an accessible checklist for adhering to the seven requirements of the Ethics Guidelines for Trustworthy AI. The Top Team on Standards for AI is tasked with developing codes of conduct that address explainability and transparency.

Transparency is an important part of Ireland's national AI strategy. Ireland views transparency as an essential component of accountability and

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[1858] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1859] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

trust in AI. Strand 1 of AI - Here for Good states that "AI must be developed and used with trust, transparency and accountability" and that Ireland is committed to ensuring that AI systems are "trustworthy, fair and inclusive."

Transparency remains an important part of Ireland's Harnessing Digital - The Digital Ireland Framework by continuing the implementation of Ireland's Data Sharing and Governance Act, which is designed to protect citizen's privacy by establishing a prescriptive framework in legislation for governance, oversight, and transparency of data processing within the Public Service.

Public Services Card Facial Recognition Controversy

In March 2013, the Department of Employment Affairs and Social Protection (DEASP), Ireland's national social security office, implemented facial image matching software to minimize fraud and errors of the Public Services Card's (PSC) social security applicant identity verification. The Irish Council for Civil Liberties (ICCL), an independent non-profit in Ireland, has criticized the PSC for collecting and storing more data than necessary, increasing the risk of a security breach through its collection of sensitive biometric data, forcing economically vulnerable people to exchange their private data for access to services to which they are legally entitled, and contradicting Ireland's position on privacy at the EU.[1860] DEASP has not published their facial image matching software's accuracy and while continuing to use the software despite being under investigation by the Irish Data Protection Commissioner since October 2017. Human Rights Watch has documented reports of eligible applicants being denied social security support due to documentation requirements or objections to the PSC for privacy reasons.[1861]

A proposal to equip the Garda with police facial recognition technology (FRT) to enhance their surveillance powers was made by the Minister of Justice in May of 2022.[1862] In conjunction with AI and other surveillance capabilities, this FRT system will enable the fast identification of criminals from CCTV footage.

[1860] Irish Council for Civil Liberties, *The Public Services Card*,
https://www.iccl.ie/2019/the-public-services-card-contd/
[1861] Human Rights Watch, *Q&A: How the EU's Flawed Artificial Intelligence Regulation Endangers the Social Safety Net* (Nov. 10, 2021),
https://www.hrw.org/sites/default/files/media_2021/11/202111hrw_eu_ai_
regulation_qa_0.pdf
[1862] Conor Gallagher, *Garda to use facial recognition technology*, The Irish Times (May 25, 2022), *https://www.irishtimes.com/news/crime-and-law/garda-to-use-facial-recognition-technology-1.4887298*

Police FRT is used as a method of widespread monitoring to track and identify individuals without the need for reasonable suspicion. FRT's widespread use runs the risk of damaging effects by altering how people interact in public and online settings. While public safety and national security concerns take precedence over individual privacy, the intrusions caused by police FRT surveillance are excessive and unjustified.

Over-policing is already an issue in communities with marginalized groups, and this technology has the potential to exacerbate the problem through racial and minority ethnic profiling and the disruption of people's lives. The Garda's use of technologies such as CCTV, ANPR, drones, and body worn cameras are already being scrutinized.[1863] Furthermore, the continued use of facial recognition by DEASP for determining access to social services and the Irish DPC's weak GDPR enforcement record remain areas of concern.

Lethal Autonomous Weapons

Ireland is a High Contracting Party to the Convention on Certain Conventional Weapons (CCW) and has been an active participant in CCW discussions related to lethal autonomous weapons systems (LAWS). According to Human Rights Watch, Ireland has expressed interest in multilateral talks on LAWS in the UN since at least 2013 and has participated in every CCW meeting on LAWS between 2014 and 2019.[1864] In 2019, Ireland joined the other High Contracting Parties to the CCW to adopt 11 guiding principles for addressing challenges to international humanitarian law posed by LAWS.[1865] Ireland also joined eight other CCW parties in finding that the 11 guiding principles were a "useful and valuable starting point" and calling for the development of a "normative and operational framework" for ensuring human control of LAWS.[1866] Ireland

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[1863] Elaine Edwards and Kathleen Harris, Data Protection Commissioner raises CCTV concerns with Garda, Irish Times (Nov. 16, 2017),
https://www.irishtimes.com/business/technology/data-protection-commissioner-raises-cctv-concerns-with-garda-1.3293400

[1864] Human Rights Watch, *Stopping Killer Robots: Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control* (Aug. 10, 2020),
https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and#_ftn141

[1865] Meeting of the High Contracting Parties to the Convention on Certain Conventional Weapons, *Final Report* (Dec. 13, 2019),
https://digitallibrary.un.org/record/3856241?ln=en

[1866] Austria, Belgium, Brazil, Chile, Ireland, Germany, Luxembourg, Mexico, and New Zealand, *Joint Commentary on Guiding Principles A, B, C and D* (Sept. 1, 2020),

has not called for a prohibition on or new international treaty for the regulation of LAWS.

Ireland is one of the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[1867]

Human Rights

According to Freedom House, Ireland is "free," with high scores for political rights and civil liberties (97/100). Regarding transparency and openness, Freedom House reports: "The public has broad access to official information under the 2014 Freedom of Information Act, though partial exemptions remain for the police and some other agencies. A Transparency Code requires open records on the groups and individuals that advise public officials on policy. The government has been criticized for failing to consult meaningfully with civil society groups and relevant stakeholders in policy formulation, particularly regarding the Roma, Travelers, and people living with disabilities."[1868]

Ireland has endorsed the Universal Declaration of Human Rights and ratified seven of the nine core international human rights instruments,[1869] along with the European Convention on Human Rights.[1870] Strand 1 of Ireland's national AI strategy commits to "making human rights and ethical principles a key focus" of its national AI strategy, although it

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https://documents.unoda.org/wp-content/uploads/2020/09/GGE20200901-Austria-Belgium-Brazil-Chile-Ireland-Germany-Luxembourg-Mexico-and-New-Zealand.pdf

[1867] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[1868] Freedom House, *Freedom in the World 2021-Ireland* (2021), https://freedomhouse.org/country/ireland/freedom-world/2021

[1869] UN Office of the High Commissioner for Human Rights, *Ratification Status for Ireland*, https://tbinternet.ohchr.org/_layouts/15/TreatyBodyExternal/Treaty.aspx?CountryID=83&Lang=EN

[1870] Irish Human Rights and Equality Commission, *Understanding Rights—Human Rights*, https://www.makerightsreal.ie/understanding-rights/human-rights/

largely focuses on AI R&D that can improve access and inclusion, e.g., AI tools that help people with impaired hearing through real-time live captioning.

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[1871]

G20 / OECD Principles

Ireland is a member of the OECD and Council of Europe and has endorsed the OECD AI Principles in May 2019. According to its National AI Strategy, Ireland's AI policies are "underpinned by [Ireland's] engagement" with AI policy processes at the EU, UN, and OECD.

Ireland has joined GPAI as a full member as part of its national AI strategy to establish an "agile and appropriate" AI governance and regulatory environment.

UNESCO Recommendation on the Ethics of Artificial Intelligence

Ireland is among the 193 countries that endorsed the UNESCO Recommendation on AI, the first ever global agreement on the ethics of AI.[1872] In its National AI Strategy, issued a few months before the UNESCO Recommendation, Ireland already explicitly acknowledges the UNESCO Recommendation which is a positive sign that it will take the necessary measures to implement it.

[1871] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1872] United Nations Educational, Scientific and Cultural Organization (UNESCO), *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (Nov. 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence

Evaluation

Ireland has endorsed the OECD AI Principles and the UNESCO Recommendation on AI Ethics. Ireland has also established a national AI strategy to address trust and transparency issues and improve its AI competitiveness. However recent issues concerning the positions adopted by its data protection authority, in contradiction with those of other national data protection authorities in the EU or the European Data Protection Board, its absence of ratification of Convention 108+, and its use of facial recognition technology are reasons for concern.

Israel

National AI Strategy

In October 2022, Israel's first "draft policy for regulation and ethics in the field of artificial intelligence" was released for public comment.[1873] This policy framework was drafted by a joint task force led by Israeli government officials within the Ministry of Innovation, Science and Technology and the Regulation Cluster in the Ministry of Justice's Economic Department for Consulting and Legislation. The policy draft proclaims itself to be "a moral and business-oriented compass for any company, organization or government body involved in the field of artificial intelligence." The draft also commits to a more defined framework for AI regulations at an unspecified future date.

The policy draft reflects a regulatory approach to AI, akin to that of the US Blueprint for an AI Bill of Rights,[1874] instead of "a lateral framework legislation for the entire field of artificial intelligence" such as the proposed EU AI Act.[1875]

Israel's policy draft outlines principles for the "responsible use of reliable AI". The draft AI regulatory and ethics principles are: "person-centric": respect for fundamental rights, the rule of law, public interest "while maintain[ing] human dignity and privacy; fairness through equality, diversity, "apprehension of bias" and "the risk of unwarranted discrimination"; transparency including "the need to provide an explanation for the decision thereof or the manner in which it operated"; reliability, durability, security and safety; as well as responsibility of developers, operators or users "for the proper functioning thereof and for upholding of the other principles in their activities.[1876]

[1873] Israeli Ministry of Science and Technology, *For the first time in Israel: The principles of the policy for the responsible development of the field of artificial intelligence were published for public comment* (Nov. 17, 2022), https://www.gov.il/en/departments/news/most-news20221117

[1874] Office of Science and Technology Policy, *Blueprint for an AI Bill of Rights* (Oct. 4, 2022), https://www.whitehouse.gov/ostp/ai-bill-of-rights

[1875] European Commission, *Proposal for a Regulation of the European Parliament and of the Council laying down harmonized rules on artificial intelligence (Artificial Intelligence Act) and amending certain Union legislative Acts* (Apr. 21, 2021), https://eur-lex.europa.eu/legal-content/EN/TXT

[1876] Israeli Ministry of Science and Technology, *For the first time in Israel: The principles of the policy for the responsible development of the field of artificial intelligence were published for public comment* (Nov. 17, 2022), https://www.gov.il/en/departments/news/most-news20221117

The draft AI regulatory and ethics policy also proposes "formulating a uniform tool for risk management regarding the use of artificial intelligence, which will create a common language for Government officials, regulators and private entities alike."[1877]

Sectoral regulation if deemed necessary by regulators will be "carried out in appropriate cases using "soft" and advanced regulatory tools (such as voluntary standardization and self-regulation); will be developed in a modular format and using regulatory experimentation tools (such as "sandboxes")."[1878]

In terms of governance, the draft policy outline plans to establish a knowledge and coordination center within the Ministry of Innovation, Science and Technology. The Center would be in charge of "piloting regulation in this field" with responsibilities including, "implementing this regulatory and ethics policy and updating as needed; advising Government ministries and regulators in formulating policy and regulations regarding artificial intelligence; and making information and tools available for responsible use of artificial intelligence." The center would also be responsible for Israel's "continued active involvement in the development of international regulation and standardization."[1879]

The draft regulatory and ethics policy additionally proposes the establishment of an "intra-governmental professional forum" including "regulators and policy and legal technology experts" to advise and update on evolving issues, as well as "a forum for public participation" including "representatives of industry, academia, civil organizations and the general public to discuss the issues of artificial intelligence regulation." The release of the draft AI regulatory and ethics Policy has been preceded by several initiatives highlighting the need to define a national AI strategy and related ethical principles.

In June 2018, the Knesset Science and Technology Committee called upon the government to examine various regulatory aspects of AI, including privacy and legal responsibility.[1880] In July 2018, Israel's Prime Minister launched the National Initiative for Secured Intelligent Systems with the aim to generate a national plan in the field of AI. The Prime Minister established an AI Steering Committee. 15 multi-stakeholder Committees were then created around three main themes: "Cross-

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[1877] Ibid.

[1878] Ibid.

[1879] Ibid.

[1880] Science and Technology Committee, *First discussion on the government's readiness for the field of artificial intelligence* (Jun. 4, 2018), https://m.knesset.gov.il/news/pressreleases/pages/press04.06.18ec.aspx

Sectorial", including "Ethics and Regulation"; "Technologies"; and "Implementations" in specific sectors such as healthcare and medicine, transportation, security, fintech and agriculture.[1881]

The Ethics and Regulation Committee chaired by Prof. Karine Nahon released its report in November 2019.[1882] The Committee was "commissioned to suggest guiding principles in the Israeli context that would be taken into account as part of the national plan to turn Israel into an AI leader." The Committee recommended the following ethical principles for AI: Fairness; Accountability (including transparency, explainability, ethical and legal responsibility); Protecting human rights (including bodily integrity, privacy, autonomy, civil and political rights); Cyber and information security; Safety (including internal safety and external safety); and Maintaining a competitive market.

The Committee found that "Privacy protection regimes are currently facing a significant gap between the principled importance of consent to collect and use information and a reality where this agreement is based on standard forms that often do not serve the purpose of agreement. This complexity also affects the AI areas, as it is based on the processing of personal information." The Committee also recommended that the Privacy Protection Authority would be responsible for AI applications and decisions involving personal data. The Committee recommended new authorities and resources for the agency.

The "National Initiative Report" integrating the various conclusions and recommendations[1883] was submitted to the Israeli Prime Minister in 2020.[1884] However, in a public statement some members of the Steering Committee objected to the summary of the recommendations and the prioritization of some sectors in the final report.[1885]

[1881] Isaac Ben-Israel, Eviatar Matania and Leehe Friedman, *Harnessing Innovation: Israeli Perspectives on AI Ethics and Governance – Report for CAHAI* (Oct. 2020), p. 6, https://sectech.tau.ac.il/sites/sectech.tau.ac.il/files/CAHAI%20-%20Israeli%20Chapter.pdf

[1882] Ethics and Regulations Team, *Subcommittee of the Israeli National Intelligent Systems Project on Artificial Intelligence, Ethics and Regulation* (Nov. 19, 2020), https://ekarine.org/wp-admin/pub/AIEthicsRegulationReport-English.pdf

[1883] Uri Berkovitz, *Israel's national AI plan unveiled,* Globes (Nov. 20, 2019), https://en.globes.co.il/en/article-israels-national-ai-plan-unveiled-1001307979

[1884] Isaac Ben-Israel, Eviatar Matania and Leehe Friedman, *Harnessing Innovation: Israeli Perspectives on AI Ethics and Governance – Report for CAHAI* (Oct. 2020), p.7, https://sectech.tau.ac.il/sites/sectech.tau.ac.il/files/CAHAI%20-%20Israeli%20Chapter.pdf

[1885] Israel Innovation Authority, *2018-19 Report* (Jan. 14, 2019), https://innovationisrael.org.il/en/news/israel-innovation-authority-2018-19-report

Parallel to the work of that committee, in November 2018, the Samuel Neaman Institute, a national policy research institute within Israel, submitted a report to the National Council for Research & Development within the Ministry of Innovation, Science and Technology. While a significant part of the report was dedicated to ethical concerns,[1886] the ministry highlightedthe need to increase the workforce dealing with robotics, data science, and AI.[1887]

In the meantime, the CEO of the Israel Innovation Authority (IIA) also urged Israel to "close the gap with other countries who already make enormous investments in artificial intelligence infrastructures. In order for Israel to continue to lead in the global technological race, it is necessary to allocate resources and a national artificial intelligence strategy shared by the government, academia, and the industry."[1888]

The 2019 IIA Report identified four challenges to Israel's continued leadership AI among which the slow-changing regulation and a lack of ethical guidelines and limited access to public and government databases for use by new companies. According to this report, "Implementation of smart systems raises ethical concerns that call for clear regulatory definitions. Using large databases poses privacy challenges that mandate information classification by sensitivity levels. Moreover, at times, it is not clear how AI systems make decisions. The responsibility of the manufacturer or the user for the machine's 'independent' activity, in the case of critical error, remains unclear (for example, in an autonomous car accident)."[1889]

In October 2020, the Institute for National Security Studies (INSS) recommended setting up an agency like the National Cyber Directorate to take charge of integrating artificial intelligence into the defense

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[1886] Gatz et al., *AI, Data Science, And Robotics. A report about Ethics, Law, and Privacy* (Dec. 2018), https://www.neaman.org.il/Files/Artificial%20Intelligence,%20Data%20Science,%20and%20Smart%20Robotics-%20A%20report%20on%20Ethics,%20Law%20and%20Privacy_20181230121054.072.pdf

[1887] Ministry of Innovation, Science and Technology, *The demand for manpower in the fields of artificial intelligence, data science and robotics is expected to grow* (Dec. 2018), https://www.gov.il/he/departments/news/most_news20181112

[1888] Ibid.

[1889] Israel Innovation Authority, *Bolstering Artificial Intelligence: What Can Be Done for Israel to Maintain its Leading Position in the Field of AI?* (2019) (section: Changes Needed to Privacy and Ethics Policy in AI), https://innovationisrael.org.il/en/reportchapter/bolstering-artificial-intelligence

establishment and maintain Israeli leadership.[1890] The INSS argued that developing a national strategy for artificial intelligence, including its ethical aspects, is critical for Israel's future security.

In August 2021, the Office of the Prime Minister published "Decision 212":[1891] a program to promote innovation, encourage the growth of the high-tech industry and strengthen technological and scientific leadership. The decision includes ten action items. Among them is the strategic need to support the development of artificial intelligence technology. The decision assigns the minister of Innovation, Science and Technology to lead the government's policy in regulation, information and data policy, ethics, and international cooperation. The minister is also expected to formulate a national plan, considering legal and ethical principles accepted worldwide, such as the OECD AI principles.

Public Participation

The release of the draft regulatory and ethics policy in October 2022 has been followed by a phase of consultation with an explicit request for public comment. The policy draft also calls for the establishment, within the Ministry of Innovation, Science and Technology, of a forum for public participation to discuss the development of AI regulations and oversight.[1892]

Following this call for the public participation, the Israeli Democracy Institute provided comments, covered by the media,[1893] on the government's plan to regulate AI.[1894] The Israeli Democracy Institute argued that the suggested AI soft regulation, self-regulation, and ethical principles are insufficient. Instead, the government should design

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[1890] Israeli Ministry of Science and Technology, *For the first time in Israel: The principles of the policy for the responsible development of the field of artificial intelligence were published for public comment* (Nov. 17, 2022), https://www.gov.il/en/departments/news/most-news20221117

[1891] The Office of the Prime Minister, *Decision 212* (Aug. 2021), https://www.gov.il/he/departments/policies/dec212_2021

[1892] Israeli Ministry of Science and Technology, *For the first time in Israel: The principles of the policy for the responsible development of the field of artificial intelligence were published for public comment* (Nov. 17, 2022), https://www.gov.il/en/departments/news/most-news20221117

[1893] Sagi Cohen, *"It's not enough, we need legislation": experts against the guidelines for the development of ethical artificial intelligence,* TheMarker (Dec. 29, 2022), https://www.themarker.com/technation/2022-12-29/ty-article/.premium/00000185-5d4f-d68b-a7ef-7def7b680000

[1894] The Israeli Democracy Institute, *The Regulation of Artificial Intelligence in Israel Requires Red Lines to Prevent Violation of Fundamental Rights* (Dec. 2022), https://www.idi.org.il/knesset-committees/46881

enforceable laws that clearly define "red lines" to avoid Israel becoming the backyard of AI-related experiments. The Israeli regulation should align with international efforts, especially those of the European Union. The Israeli Democracy Institute also advocated for an approach which includes human right protection and risk-based frameworks and which is embedded in a combination of horizontal and sector-specific regulations.

A major even in Israel is the Tel-Aviv University's annual AI Week. It is an international conference addressing AI research, applications, entrepreneurship, policy making among others. The 2023 edition plenary sessions tackled topic such "how is a nation's culture and heritage reflected in its AI strategy", and "AI in national strategies." The 2023 AI week also featured thematic tracks such as ethics in AI, AI in defense, AI in health, AI in sustainability.[1895]

Data Protection

Complementary laws govern data protection in Israel: legal texts and guidelines: (1) the 1992 Basic Law: Human Dignity and Liberty according to which the right for privacy is a constitutional right;[1896] (2) the 1981 Privacy Protection Law (PPL)[1897] and subsequent regulations,[1898] such as Israel's 2017 Data Security Regulation;[1899] and (3) the guidelines of the Israeli Privacy Protection Authority.[1900] Chapter 1 of the PPL covers privacy generally, while Chapter 2 concerns data in storage and sets out various registration, purpose-limitation, transparency and security requirements, as well as individual rights of access and rectification.[1901] Other Chapters address procedural and enforcement matters as well as the

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[1895] Tel Aviv University, *AI Week* (Feb. 13-15, 2023), https://ai-week-2023.b2b-wizard.com/expo

[1896] The Knesset, *Basic Law: Human Dignity and Liberty* (Mar. 17, 1992), https://m.knesset.gov.il/EN/activity/documents/BasicLawsPDF/BasicLawLiberty.pdf

[1897] The Knesset, *Protection of Privacy Law 1981* (unofficial translation), https://www.gov.il/BlobFolder/legalinfo/legislation/en/ProtectionofPrivacyLaw57411981unofficialtranslatio.pdf

[1898] IAPP, *Protection of Privacy Regulations (Data Security) 2017* (Unofficial translation), https://iapp.org/media/pdf/resource_center/IS-PROTECTION-OF-PRIVACY-REGULATIONS.pdf

[1899] Assaf Harel, *5 takeaways from the Israeli Privacy Protection Regulations,* IAPP (Aug. 5, 2019), https://iapp.org/news/a/five-takeaways-on-the-first-anniversary-of-the-israeli-privacy-protection-regulations/

[1900] Yoram Shiv and Shira Nager, *Israel - Data Protection Overview,* OneTrust (Oct. 2020), https://www.dataguidance.com/notes/israel-data-protection-overview

[1901] The Privacy Protection Authority, *Legislation* (Oct. 3, 2017) (unofficial translation), https://www.gov.il/en/Departments/legalInfo/legislation

disclosure or sharing of information by public bodies and liabilities for the publication of privacy-infringing material in newspapers.

In 2011, the European Commission determined that Israel satisfied the "adequacy requirement" according to the European Directive 95/46, but this status is under examination currently due to changes in the new European Data Protection Regulation (GDPR). The Israeli Ministry of Justice proposed updates of the PPL, due to the major gap between GDPR and the current Israeli Law. In 2021, the Israeli Ministry of Justice announced approval of updates to the Privacy Protection Law. The amendments include significant new administrative enforcement powers for the Privacy Protection Authority, including the authority to impose financial sanctions, updating technological and social definitions, and reducing the bureaucratic burden on organizations' obligation to register databases.[1902] In January 2022, the Israeli government introduced a substantial amendment to the PPL, Bill No. 14, aimed to align the PPL with the EU GDPR at least in part.[1903]

Israel's Privacy Protection Authority (PPA) is the primary regulator for matters relating to privacy and data security. [1904] The PPA sits within the Israeli Ministry of Justice and is headed by the Registrar of Databases. The PPA regulates and enforces data protection across all sectors, private and public, according to the provisions of the Privacy Protection Law.

In July 2022,[1905] the PPA presented their interpretation of section 11 of the PPL which enshrines the right information. The PPA's interpretation covers AI-based decision-making systems. In August 2022,[1906] the PPA covered telemedicine (or 'telehealth') services, including AI-based diagnostic services. In August 2022, the PPA issued a detailed report[1907] about

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[1902] IAPP, *Israel pushes forward privacy law amendments* (Nov. 8, 2021), https://iapp.org/news/a/israel-pushes-forward-privacy-law-amendments/

[1903] For criticism, see Dan Or-Hof, *A turning point for privacy laws in Israel*, IAPP (Jan. 26, 2022), https://iapp.org/news/a/a-turning-point-for-privacy-laws-in-israel/

[1904] The Privacy Protection Authority, https://www.gov.il/en/departments/the_privacy_protection_authority

[1905] The Privacy Protection Authority, *Obligation to notify as part of collection and use of personal information* (Jul. 31, 2022), https://www.gov.il/he/departments/news/duty_to_notify

[1906] The Privacy Protection Authority, *Protection of patient privacy in the provision of remote medical services* (Aug. 2, 2022), https://www.gov.il/BlobFolder/news/remote_medical_services/he/remote_medical_services_doc.pdf

[1907] The Privacy Protection Authority, *Privacy and data protection Deepfake Technologies Use* (Aug. 28, 2022), https://www.gov.il/BlobFolder/reports/31-01-23/en/Deepfake-31.pdf

DeepFake technologies and privacy. According to the PPA, "unauthorized distribution of an image or video forged using the Deepfake technology - which displays degrading or demeaning content relating to a person's private life and could be perceived in public as authentic - constitutes a violation of the Privacy Protection Act".

The PPA is a member of the Global Privacy Assembly (GPA) since 2009. The PPA has not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[1908] the 2020 GPA Resolution on AI Accountability,[1909] or the 2022 GPA Resolution on Facial Recognition Technology.[1910]

Algorithmic Transparency

In its 2022 interpretation of section 11 of the PPL on the right to information, the PPA clarified that this provision applies to AI-based systems.

The topic of algorithmic transparency had already been raised by the Knesset`s Research and Information Center's June 2018 research document that was prepared for the first discussion on the government's readiness for artificial intelligence that month.[1911] Since then, algorithmic transparency has regularly mention in policy documents and debates, leading to Decision 212. Algorithmic transparency is also mentioned in the draft policy and regulatory policy.

In November 2022, the press reported that the Israeli Police operates an AI-based profiling system that aims to identify drug smugglers at the airport border. The AI-based system draws data from police and government databases, and outputs names of citizens arriving at the airport. Citizens whose names were outputted by the system, are bodily searched even though there is no prior intelligence information or any other suspicion

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[1908] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1909] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[1910] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[1911] Knesset`s Research and Information Center, *Information about "Artificial Intelligence"* (Jun. 2018), https://fs.knesset.gov.il/globaldocs/MMM/eb0bf048-de5c-e811-80e1-00155d0a9876/2_eb0bf048-de5c-e811-80e1-00155d0a9876_11_10863.pdf

that they smuggled drugs. According to the journal, the Israeli police refuse to provide details on how the system is operated and how the algorithm works. As a result, it was argued that courts cannot properly monitor the AI-based system and its decisions, and these searches continue without prior suspicion but only as a result of the opaque algorithm.[1912]

Medical Data

In 2018, Israel's Prime Minister announced the establishment of a $300 million initiative to make Israel's large pool of de-identified clinical data available to researchers, entrepreneurs, and medical institutions to develop new treatments and personalized medicine among other goals. "With all records in a common format, AI systems – using machine learning algorithms – will be able to parse the data, seeking correlations in conditions and treatments to discern which treatments are likely to be most effective" said the Director of the Israel Ministry of Health.[1913]

The initiative currently includes the "Mosaic" ("Psifas") project, a personalized medicine health project, for creating a national information infrastructure for health research in the field of genetics and medical information. Another project is "Timna":[1914] a national platform for conducting big data research in health data, intended to serve the research community in the health system, academia and Israeli industry.

At the end of 2022, the Ministry of Health, through the Technology and the Digital Health Divisions, requested feedback on guiding principles for developing machine learning-based technologies.[1915]

Covid-19 Tracking Controversy

Beginning with emergency measures taken in March 2020, the Israeli police used mobile-phone location data and AI techniques to attempt to determine whether those in quarantine were indeed staying in quarantine. A month after the tracking was authorized, the parliamentary

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[1912] Tomer Ganon, *The algorithm that will stop you at the airport*, Calcalist (Nov. 10, 2022), https://newmedia.calcalist.co.il/magazine-10-11-22/m02.html

[1913] Moshe Bar Siman Tov, *How Israel Turned Decades Of Medical Data Into Digital Health Gold,* Forbes (Mar. 26, 2019), https://www.forbes.com/sites/startupnationcentral/2019/03/26/how-israel-turned-decades-of-medical-data-into-digital-health-gold/?sh=1b576d873ee4

[1914] Ministry of Health, *Project Timna*, https://govextra.gov.il/ministry-of-health/big-data-research/home/

[1915] Ministry of Health, *Guiding principles for the development of machine learning based technologies - request for feedback* (Jan. 19, 2023), https://www.gov.il/he/Departments/publications/Call_for_bids/digital-medical-technology-glmp

committee in charge of overseeing the practice halted the mobile phone tracking. The Committee argued that the harm done to privacy outweighed the benefits of the tracking.[1916]

Israel then turned to Shin Bet, the Israeli Security Agency, to monitor the general population and track potential Covid patients and their contacts.[1917] This action was criticized by human rights activists[1918], as well as medical associations[1919].

On 26 April 2020, Israel's Supreme Court banned the intelligence agency from tracing the phone location of those who may be infected with Covid-19, until new laws are passed.[1920] "The state's choice to use its preventative security service for monitoring those who wish it no harm, without their consent, raises great difficulties and a suitable alternative (...) must be found," the court said.[1921] The Association for Civil Rights in Israel, one of the groups which brought the court challenge, welcomed the decision, saying: "Israel must not be the sole democracy which operates its secret security service to monitor its citizens, even in the fight against the coronavirus."[1922] In July, Israel's parliament voted to allow the country's Internal Security agency to track the contact relations of Israeli cellphone

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[1916] Knesset News, *Foreign Affairs and Defense Committee suspends bill allowing police to surveil civilian phones to enforce quarantine orders* (Apr. 23, 2020), https://main.knesset.gov.il/EN/News/PressReleases/Pages/press23420b.aspx

[1917] Jonathan Lis, *Israel Extends Security Service Tracking of Coronavirus Cases for Three More Weeks* (May 27, 2020), https://www.haaretz.com/israel-news/.premium-israel-extends-security-service-tracking-of-coronavirus-cases-for-three-more-weeks-1.8875700

[1918] Tehilla Shwartz Altshuler, *"Israel went too far with the digital fight against Corona"*, Ace (Mar. 24, 2020) https://www.ice.co.il/opinions/news/article/778683

[1919] Refaella Goichman, *Doctors: "Shin Bet surveillance harms the fight against Corona",* The Marker (Mar. 25, 2020) https://www.themarker.com/technation/2020-03-25/ty-article/0000017f-e2f5-d568-ad7f-f3fff0010000

[1920] BBC News, *Coronavirus: Israeli court bans lawless contact tracing* (Apr. 27, 2020), https://www.bbc.com/news/technology-52439145

[1921] Cardoza Law School, Versa, *Ben Meir v. Prime Minister, HCJ 2109/20* (Apr. 26, 2020), https://versa.cardozo.yu.edu/opinions/ben-meir-v-prime-minister-0

[1922] Lubell, Maayan, *Israel's top court says government must legislate COVID-19 phone-tracking,* Reuters (Apr. 26, 2020) https://www.reuters.com/article/us-health-coronavirus-israel-monitoring-idUSKCN2280RN

users for the rest of the year amid a resurgence in new cases.[1923] Human rights organizations renewed their objections.[1924]

In August 2020 it was revealed that only four percent of those sent for isolation by the intelligence system were actually sick[1925]. In a September 2020 opinion, the PPA also objected to the use of the Israeli Internal Security Service location tracking tool.[1926] The PPA said that the measure cannot be justified, and that use would adversely impact the public's trust in public authorities. The PPA also questioned the effectiveness of the location tracking tool. In January 2021, the government received an automatic extension to the expired law to continue tracking - due to the elections at that time. In March 2021, the Supreme Court clarified that the Knesset is not in charge of supervising the tracking tool or limiting its use. In the same month, elections were also held. The same month, a week after the elections to the 24th Knesset and before its inauguration, the Foreign Affairs and Security Committee refused to continue using the tracking tool.[1927]

Social Ranking

Following a proposal to use scoring technologies for Israelis who may be infected with COVID-19, in April 2020, the PPA also published a review on the use of technologies for the social ranking of citizens to achieve social and governmental goals, and the impact of this on the right to privacy. [1928] The April 2020 review indicated that social ranking systems

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[1923] Reuters, *Israel approves cellphone tracking of COVID-19 carriers for rest of year* (Jul. 20, 2020), https://www.reuters.com/article/us-health-coronavirus-israel-surveillanc/israel-approves-cellphone-tracking-of-covid-19-carriers-for-rest-of-year-idUSKCN24L2PJ

[1924] Privacy International, *Israel's coronavirus surveillance is an example for others - of what not to do (*updated Jul. 21, 2020), https://privacyinternational.org/long-read/3747/israels-coronavirus-surveillance-example-others-what-not-do

[1925] Idan Binyamin, *A quarter of the corona isolates located by the Shin Bet were released after it became clear that the location was wrong*, Shakuf (Aug. 17, 2020) https://shakuf.co.il/16926?_ga=2.32710839.840163551.1625568613-850313679.1619600231

[1926] Pearl Cohen, *Israel: Privacy Protection Authority Objects to Shabak-Run Location Tracking for Coronavirus Epidemiological Investigations* (Sep. 1, 2020), https://www.pearlcohen.com/israel-privacy-protection-authority-objects-to-shabak-run-location-tracking-for-coronavirus-epidemiological-investigations/

[1927] Idan Binyamin, *Without our noticing: the use of the Shin Bet tool was finally stopped*, Shakuf (Jul. 8, 2021) https://shakuf.co.il/22303

[1928] The Privacy Protection Authority, *Social rating in the light of the right to privacy: background review regarding the use of social rating systems* (Apr. 22, 2020), https://www.gov.il/he/departments/publications/reports/social_ranking

have increased in an era of Big Data and are present, in Israel, in forms such as the credit data rating system or a potential future AI-based system aimed to rate an individual's likelihood of contracting COVID-19. Specifically, the review outlined that such a system, which would process location, medical, and personal data, would constitute a serious violation of the privacy of citizens and should be avoided as far as possible and, where it cannot be avoided, it must be compliant with data protection law.

Facial recognition

Facial Recognition in Israel is implemented in border control and Israel has a biometric database of face photos and fingerprints of citizens and residents, as well as foreigners accessing Israel. A biometric database was enacted in law in 2009.[1929] The law provides the basis for the Israeli national ID-Card. The database includes biometric face-photos, and voluntary supplied fingerprints. According to the biometric database law, the information can be used for severe crime enforcement, and for state security tasks. In May 2020, the Israeli State Comptroller reported that the data of about 4.5 million Israeli drivers' licenses, including facial pictures, are not sufficiently protected from misuse or outside hacking.[1930]

Still, Israel's military has invested tens of millions of dollars to upgrade West Bank checkpoints with AnyVision facial recognition technology to verify Palestinian workers' identities and ease their entry into Israel. The new system, which began rolling out late 2018, drew criticism about the role the controversial technology plays in Israel's military control over Palestinians.[1931]

Microsoft, which was part of a group that had invested $74 million in AnyVision, hired a team of lawyers to audit the Israeli firm and determine whether AnyVision's technology applications complied with Microsoft's ethical principles against using facial recognition for mass surveillance. In March 2020, Microsoft said it was pulling investments from AnyVision

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[1929] Wikipedia, *Biometric Database Law*, https://en.wikipedia.org/wiki/Biometric_Database_Law

[1930] The Jerusalem Post, *4.5 million citizens' details insufficiently protected, comptroller says* (May 4, 2020), https://www.jpost.com/Israel-News/45-million-citizens-details-insufficiently-protected-comptroller-says-626847

[1931] Daniel Estrin, *Face Recognition Lets Palestinians Cross Israeli Checkpoints Fast, But Raises Concerns* (Aug. 22, 2019), https://www.npr.org/2019/08/22/752765606/face-recognition-lets-palestinians-cross-israeli-checkpoints-fast-but-raises-conc

although the outcomes of the audit did not substantiate claims that the startup's technology was used unethically. [1932]

In 2021, the Washington Post released further information on the program.[1933] The initiative involves a smartphone technology called Blue Wolf that captures photos of Palestinians' faces and matches them to an image database. The phone app flashes in different colors to alert soldiers if a person is to be detained, arrested or left alone. To create the database, in 2020 soldiers photographed Palestinians, including children and the elderly. The total number of people photographed is unclear. The Israeli military has also installed face-scanning cameras in the divided city of Hebron to assist soldiers at checkpoints to identify Palestinians before they present their ID cards. A wider network of closed-circuit television cameras, provides real-time monitoring of the population and can sometimes see into private homes.

A new security tool was also under development: body cameras with facial recognition technology to enable police to scan crowds and detect suspects in real time, even if their faces are obscured.[1934] In April 2022, the then minister of justice Gideon Sa'ar opposed the police initiative to operate facial recognition cameras in public spaces.[1935] In February 2023, the issues of using a biometric photo system were removed from the draft law, which regards the police and the "Special Photographic Systems."[1936]

Autonomous Weapons

Israel is a High Contracting Party to the UN's Convention on Certain Conventional Weapons (CCW) protocol and as such has presented objections to the distinctions accorded to lethal autonomous weapons systems (LAWS), and the accompanying calls for prohibition. Israel's

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[1932] Matt O'Brien, *Microsoft divests from Israeli facial-recognition startup* (March 28, 2020), https://www.timesofisrael.com/microsoft-divests-from-israeli-facial-recognition-startup/

[1933] Washington Post, *Israel escalates surveillance of Palestinians with facial recognition program in West Bank* (Nov. 27, 2021), https://www.washingtonpost.com/world/middle_east/israel-palestinians-surveillance-facial-recognition/2021/11/05/3787bf42-26b2-11ec-8739-5cb6aba30a30_story.html

[1934] France24, *Israeli firm develops body cams with facial recognition* (Jan. 23, 2022) https://www.france24.com/en/live-news/20220123-israeli-firm-develops-body-cams-with-facial-recognition

[1935] Tal Shahaf, *The Minister of Justice delayed the draft law that would allow the police to perform facial recognition of citizens in the public space,* Tech12 (Apr. 10, 2022) https://www.tech12.co.il/index-technology_first/Article-9ea17fa02f31081026.htm

[1936] The Prime Minister's Office, *Draft Law to Amend the Police Ordinance (No.) (Special Photographic Systems), 2022* (Feb. 19, 2020) https://www.gov.il/he/departments/policies/dec138-2023

representatives to the UN maintain that humans must always be accountable for error and human rights abuses, regardless of the weapons technology.[1937] Israel is known to be at the forefront of developing lethal autonomous weapons, including both the Iron Dome defensive system[1938] and the Harop suicide drone.[1939] The Israeli mission to the GGE on LAWS of the Convention on Certain Conventional Weapons clarified Israel's position in August 2019.[1940] In August 2020, Israel expressed further views on the Eleven Guiding Principles Adopted by the Group of Government Expert concerning lethal autonomous weapons system. Israel's view is that "the law of armed conflict, or international humanitarian law (IHL), applies to the potential development and use of emerging technologies in the area of LAWS; that human judgment will always be an integral part of any process regarding emerging technologies in the area of LAWS, and will be applied during their life-cycle; and that humans will always be responsible for the use of LAWS." Moreover, in Israel's view, "besides the potential risks that may be associated with LAWS, there are also operational advantages to the use of LAWS as well as clear advantages from the humanitarian perspective."[1941]

Israel was not among the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 UN General Assembly meeting. In this joint statement, States urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and

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[1937] Antebi, Liran, *The International Process to Limit Autonomous Weapon Systems: Significance for Israel - Strategic Assessment 21.3* (2018), https://strategicassessment.inss.org.il/wp-content/uploads/antq/fe-2542125832.pdf

[1938] Yaniv Kubovich, *Israel Deploys Iron Dome Amid Islamic Jihad Leader's Assassination Anniversary,* Haaretz (Nov. 11, 2020), https://www.haaretz.com/israel-news/israel-iron-dome-gaza-islamic-jihad-leader-s-assassination-hamas-1.9303330

[1939] The Week India, *Why Indian Army is eyeing a mini 'suicide drone' from Israel* (July 14, 2020), https://www.theweek.in/news/india/2020/07/14/why-indian-army-is-eyeing-a-mini-suicide-drone-from-israel.html

[1940] Group of Governmental Experts of the High Contracting Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects, *Draft Report of the 2019 session of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems* (Aug. 21, 2019) (Annex IV) https://documents.unoda.org/wp-content/uploads/2020/09/CCW_GGE.1_2019_3_E.pdf

[1941] Permanent Mission of Israel to the UN, *Israel Considerations on the Operationalization of the Eleven Guiding Principles Adopted by the Group of Governmental Experts* (Aug. 31, 2020), https://documents.unoda.org/wp-content/uploads/2020/09/20200831-Israel.pdf

strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[1942]

According to New York Times, Israel used an AI-equipped, remotely operated gun to kill an Iranian nuclear scientist.[1943] The Israeli system used AI to correct for more than a second and a half of input delay, allowing the system's operator to fire the gun at a moving target while stationed more than 1,000 miles away.

Human Rights

Israel is a signatory to many international human rights treaties and conventions and is considered a free country, receiving a combined score of 76/100 from Freedom House reflecting the nation's institutions adhering to a respect for political rights and civil liberties.[1944]

OECD AI Principles

Israel has endorsed the OECD AI Principles.

Israeli Government Decision 212[1945] from August 2021 instructs to take into account, among other things, the OECD principles as part of the promotion of the national policy in the field of AI. The draft AI regulatory and ethical policy reiterates it.

In November 2021, Israel joined the Global Partnership on Artificial Intelligence in recognition of its advanced artificial intelligence technologies and its adherence to the values of equality and democracy promoted by the OECD.[1946]

[1942] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

[1943] The New York Times, *The Scientist and the A.I.-Assisted, Remote-Control Killing Machine* (Sep. 23, 2021), https://www.nytimes.com/2021/09/18/world/middleeast/iran-nuclear-fakhrizadeh-assassination-israel.html

[1944] Freedom House, *Freedom in the World 2022 – Israel* (2022), https://freedomhouse.org/country/israel/freedom-world/2022

[1945] The Office of the Prime Minister, *Decision 212* (Aug. 2021), https://www.gov.il/he/departments/policies/dec212_2021

[1946] Al-Monitor, *Israel joins international artificial intelligence group: Israel was added today to the Global Partnership on Artificial Intelligence, joining 19 an alliance of technologically advanced democratic countries* (Nov. 11, 2021), https://www.al-monitor.com/originals/2021/11/israel-joins-international-artificial-intelligence-group#ixzz7K2VqCY5k

UNESCO Recommendation on the Ethics of Artificial Intelligence

Israel is not a member of UNESCO and did not endorse the UNESCO Recommendations on the Ethics of AI.

Evaluation

Israel benefits from a well-established legal regime for data protection but has decided to adopt a different approach with its draft AI policy, privileging soft regulation and self-regulation. While Israel has long been a leader in AI research and development, the government only recently published its draft AI policy. Its adoption remains uncertain in view of the current volatile political climate. Israel has had five elections since April 2019. On January 4, 2023, the Minister of Justice announced a plan for judicial reforms which has triggered a strong opposition from the population[1947] and fears that the rule of law would be weakened.[1948] In these circumstance, it is too early to know whether the draft policy will come into fruition.[1949] In the meantime, the use of an AI-based tracking system for sensitive medical condition by the internal security agency is of concern. Also troubling are the use of facial recognition technology without clear legal basis and Israel's reluctance to support limits on lethal autonomous weapons.

[1947] Jeremy Sharon, Justice minister unveils plan to shackle the High Court, overhaul Israel's judiciary, The Times of Israel (Jan. 4, 2023) https://www.timesofisrael.com/justice-minister-unveils-plan-to-shackle-the-high-court-overhaul-israels-judiciary
[1948] Gidi Weitz, *The Fate of Israeli Democracy Lies in the Hands of Conservative Supreme Court Justices,* Haaretz (Mar. 17, 2023) https://www.haaretz.com/israel-news/2023-03-17/ty-article/.premium/the-fate-of-israeli-democracy-lies-in-hands-of-conservative-supreme-court-justices/00000186-eeb2-dd8e-a7d7-ffffc2ef0000; Gideon Rachman, Israeli democracy at a crossroads, Financial Times (Mar. 16, 2023) https://www.ft.com/content/c16f9d93-86aa-41e8-8446-199c6991409e ; The Times of Israel, *'Will Bibi break Israel?' Economist asks on cover of latest edition* (Mar. 17, 2023) https://www.timesofisrael.com/will-bibi-break-israel-economist-asks-on-cover-of-latest-edition/
[1949] Reuters, *Factbox: Top ministers in Israel's new religious-nationalist cabinet* (Dec. 29, 2022), https://www.reuters.com/world/middle-east/top-ministers-israels-new-religious-nationalist-cabinet-2022-12-29/

Italy

National AI Strategy

In July 2020, the Italian Ministry of Economic Development (MISE) published the Proposals for a National Strategy for Artificial Intelligence drafted by the MISE AI Expert Group.[1950]The final Proposals are the result of a public consultation organized in 2019 on an initial set of proposals,[1951] and of a background paper providing initial guiding principles and policy recommendations.[1952] The final Proposals provide 82 recommendations for developing an Italian strategy.

In introduction to these recommendations, the group of experts in charge of the drafting of the Proposals explain that: "[i]n a global context dominated by the increasing, and often blind rivalry between the United States and China, the European Union has gradually carved for itself a role of defender of the responsible use of technology based on an approach which considers AI as a means and not an end in itself. Working together toward the formulation of public policies is also necessary in the context of the multilevel governance of the EU. Since 2018, the European Commission has played a key role in defining the "European Coordinated Plan on Artificial Intelligence." Ensued, for each EU Member State, the obligation to define a national AI strategy and send it to Brussels. The Italian Government (the Ministry of Economic Development) has followed an approach similar to that of the Commission, by appointing in January 2019 a group of 30 experts, which here presents the results of its work in the shape of proposals for a national AI strategy."[1953]

[1950] Italian Ministry of Economic Development, *Proposte per una strategia nazionale per l'intelligenza artificiale* (July 2020),
https://www.mise.gov.it/images/stories/documenti/Proposte_per_una_Strategia_italiana_AI.pdf

[1951] Italian Ministry of Economic Development, *Strategia Nazionale per l'Intelligenza Artificiale (Bozza per la consultazione)* (July 2019),
https://www.mise.gov.it/images/stories/documenti/Strategia-Nazionale-Intelligenza-Artificiale-Bozza-Consultazione.pdf

[1952] Italian Ministry of Economic Development, *Proposte per una strategia italiana per l'intelligenza artificiale. Gruppo di Esperti MISE sull'intelligenza artificiale* (July 2019), https://www.mise.gov.it/images/stories/documenti/Proposte-per-una-strategia-italiana-2019.pdf

[1953] Italian Ministry of Economic Development, *Proposte per una strategia nazionale per l'intelligenza artificiale* (July 2020), p.5 (translated from Italian),
https://www.mise.gov.it/images/stories/documenti/Proposte_per_una_Strategia_italiana_AI.pdf

According to the group of experts, Italy has to both contribute in defining a European AI strategy and in developing a national strategy which takes into account Italian specificities. Italy should thus take AI as an opportunity to inaugurate a new "RenAIssance." "Just as Renaissance in the middle of the Fourteenth Century signals a new way of understanding the world, with a focus on human beings and their needs, impulses and sufferings, Renaissance in the digital era could be inspired by the need to define a new relationship between human beings and machines, whereby technology increases human capabilities and becomes a key instrument in drafting a new social contract, oriented towards sustainable development. In this sense, Italy should position itself as the defender of AI for good, so not as an end in itself, but as desirable to the extent that it can contribute to the well-being of human beings and to sustainable development in economic, social and environmental context. The possibility of a new RenAIssance underlines all the Proposals. This approach is far from idealist: to consider the issue of the development of AI from the perspective of the future of work, interpersonal relationships as well as social and environmental governance constitutes a Copernican revolution compared to the traditional approach oriented towards industrial competitiveness which nonetheless plays a central role in the sustainability of our economy."[1954]

The Group of experts calls for an anthropocentric approach to AI based on three pillars driving the development of technologies and policies:

- AI for human beings. The first pillar concerns the individual and the relationship with "the machine." AI technologies must be at the service of people, guaranteeing human supervision, preventing social and territorial imbalances deriving from unaware and inappropriate uses. It is about defining and implementing initiatives related to safety, public administration, health and medicine, education, new skills, policies for work and digital humanities, media and the cultural and creative industry.
- AI for a reliable, productive and sustainable digital ecosystem. The second pillar includes industrial policies for the manufacturing sector (Industry 4.0). AI must be designed and implemented in a reliable and transparent way, so that it can be adopted in any productive areas. This concerns the promotion of robotics and

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[1954] Italian Government, jointly developed by the Ministry of Education, University and Research, the Ministry of Economic Development, and the Minister of Technological Innovation and Digital Transition, *Strategic Programme on Artificial Intelligence 2022-2024* (2021), p. 8, https://assets.innovazione.gov.it/1637777513-strategic-program-aiweb.pdf

autonomous systems, software, data processing, internet of things, finance, pharmaceuticals and biotech.

- AI for sustainable development. The third pillar focuses on sustainability. AI technologies must generate opportunities of growth and well-being for all individuals, in line with the principles contained in Article 3 of Italian Constitution and the United Nations Sustainable Development Goals. This pillar includes actions related to environmental protection and sustainable infrastructures such as smart cities, transport, agriculture, space.

In November 2021, the Italian government issued a national AI strategy entitled: the Strategic Programme on Artificial Intelligence 2022-2024.[1955] The Strategic Programme was jointly developed by the MISE, the Ministry of Education, University and Research and the Ministry of Technological Innovation and Digital Transition.

The Strategic Programme recognizes that the Italian AI ecosystem has vast potential, yet not fully exploited. The current Italian context and international position calls for a national AI strategy characterised by the need to build on the positive elements of its ecosystem while focusing on reforms and investments on specific areas of weakness.

To that end, the Strategic Programme identifies 5 guiding principles: "Italy's AI is a European AI; Italy will be a global research and innovation hub for AI; Italy's AI will be human centred, trustworthy and sustainable; Italian companies will become leaders of AI based research, development and innovation; Italy's public administrations will govern with AI and will govern AI".[1956]

More particularly, the first guiding principle makes clear that the national AI strategy is to be understood in its European ecosystem. "In line with the EU Coordinated Plan on Artificial Intelligence, the Italian Strategic Programme stems from the awareness that only through common and coordinated actions Europe will be able to compete globally and work towards strategic autonomy." The Strategic Programme specifically

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[1955] Italian Government, jointly developed by the Ministry of Education, University and Research, the Ministry of Economic Development, and the Minister of Technological Innovation and Digital Transition, *Strategic Programme on Artificial Intelligence 2022-2024* (2021), p. 14, https://assets.innovazione.gov.it/1637777513-strategic-program-aiweb.pdf

[1956] Italian Government, jointly developed by the Ministry of Education, University and Research, the Ministry of Economic Development, and the Minister of Technological Innovation and Digital Transition, *Strategic Programme on Artificial Intelligence 2022-2024* (2021), https://assets.innovazione.gov.it/1637777513-strategic-program-aiweb.pdf

acknowledges the necessity of "joint efforts for improving and adopting the harmonised set of rules for AI proposed by the AI Act."[1957]

Regarding the guiding principle for a human-centred, trustworthy and sustainable AI, the Strategic Programme states that: "[t]echnologies must not promote economic growth per se, but inclusive and sustainable growth, in line with the principles contained in Article 3 of the Italian Constitution and the United Nations Sustainable Development Goals. This means that AI development must be centred around economic and social inclusion, human rights as well as environmental sustainability. AI must be designed and implemented in a responsible and transparent manner, based on trust and robustness so that it can be safely adopted in every sector and be capable of responding to societal challenges. To this aim, Italy adheres to the "Ethics Guidelines for trustworthy AI - Guidance and implementation program" defined by the High Level Expert Group on AI."[1958]

As for the use of AI in public administrations, the Strategic Programme states that "[o]n the one hand, Italy's Government will improve its internal processes and policies thanks to a responsible use of data and AI technology. On the other hand, the Government is committed to governing AI and mitigating its potential risks, especially to safeguard human rights and ensure an ethical deployment of AI."[1959]

On the basis of these guiding principles, the Strategic Programme defines "6 objectives: the goals of the Italian strategy"[1960] among which: "Develop and adopt human-centred and trustworthy AI; Increase AI-based

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[1957] Italian Government, jointly developed by the Ministry of Education, University and Research, the Ministry of Economic Development, and the Minister of Technological Innovation and Digital Transition, *Strategic Programme on Artificial Intelligence 2022-2024* (2021), p. 14, https://assets.innovazione.gov.it/1637777513-strategic-program-aiweb.pdf

[1958] Italian Government, jointly developed by the Ministry of Education, University and Research, the Ministry of Economic Development, and the Minister of Technological Innovation and Digital Transition, *Strategic Programme on Artificial Intelligence 2022-2024* (2021), p. 14, https://assets.innovazione.gov.it/1637777513-strategic-program-aiweb.pdf

[1959] Italian Government, jointly developed by the Ministry of Education, University and Research, the Ministry of Economic Development, and the Minister of Technological Innovation and Digital Transition, *Strategic Programme on Artificial Intelligence 2022-2024* (2021), p. 14, https://assets.innovazione.gov.it/1637777513-strategic-program-aiweb.pdf

[1960] Italian Government, jointly developed by the Ministry of Education, University and Research, the Ministry of Economic Development, and the Minister of Technological Innovation and Digital Transition, *Strategic Programme on Artificial Intelligence 2022-2024* (2021), p. 2, https://assets.innovazione.gov.it/1637777513-strategic-program-aiweb.pdf

innovation and the development of AI technology; Develop AI-driven policies and services in the public sector."[1961]

The Strategic Programme also defines "11 priority sectors where Italy intends to focus investments[1962] as well as 3 areas of intervention: how the country aims to achieve the stated objectives."[1963] These are: "Talent and Skills, Research; Applications" with a view to mobilize AI "for more competitive enterprises" and "for a more modern public administration."[1964] In these 3 areas of interventions, the Strategic Programme indicates 24 policy initiatives deemed "fundamental for Italy to retain technological competitiveness at the international level, connect the excellent results of research with the needs of industry and address the key challenges of Italian society going forward."[1965]

Digital Italy 2026

As part of the Next Generation EU, the European Union's landmark instrument for recovery from the coronavirus pandemic, Italy's Department for digital transformation has introduced a digital strategy which aims to meet the digital objectives and initiatives identified in its National Recovery

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[1961] Italian Government, jointly developed by the Ministry of Education, University and Research, the Ministry of Economic Development, and the Minister of Technological Innovation and Digital Transition, *Strategic Programme on Artificial Intelligence 2022-2024* (2021), p. 20, https://assets.innovazione.gov.it/1637777513-strategic-program-aiweb.pdf

[1962] Italian Government, jointly developed by the Ministry of Education, University and Research, the Ministry of Economic Development, and the Minister of Technological Innovation and Digital Transition, *Strategic Programme on Artificial Intelligence 2022-2024* (2021), p. 20, https://assets.innovazione.gov.it/1637777513-strategic-program-aiweb.pdf

[1963] Italian Government, jointly developed by the Ministry of Education, University and Research, the Ministry of Economic Development, and the Minister of Technological Innovation and Digital Transition, *Strategic Programme on Artificial Intelligence 2022-2024* (2021), p. 2, https://assets.innovazione.gov.it/1637777513-strategic-program-aiweb.pdf

[1964] Italian Government, jointly developed by the Ministry of Education, University and Research, the Ministry of Economic Development, and the Minister of Technological Innovation and Digital Transition, *Strategic Programme on Artificial Intelligence 2022-2024* (2021), p. 20, https://assets.innovazione.gov.it/1637777513-strategic-program-aiweb.pdf

[1965] Italian Government, jointly developed by the Ministry of Education, University and Research, the Ministry of Economic Development, and the Minister of Technological Innovation and Digital Transition, *Strategic Programme on Artificial Intelligence 2022-2024* (2021), p. 20, https://assets.innovazione.gov.it/1637777513-strategic-program-aiweb.pdf

and Resilience Plan (PNRR).[1966] Digital Italy 2026 identifies several priority investment areas among which Data and interoperability; Digital services and digital citizenship; Digitization of public administrations; and Basic digital competency. Digital Italy 2026 is complemented by an Operational Plan that details its lines of action and provides key targets for 2025.[1967]

Digital Italy 2026 is devised according to three-year goals that assign deadlines for each investment area and reform axis. These largely aim to adhere to the European Commission's 2030 Digital Compass.[1968] By 2026, Italy will aim to have:

- 70% of the population using digital ID
- 75% of the population achieving basic digital competency
- 75% of public services operating on the cloud
- 80% of essential public services available online
- 100% of families having broadband access

Public Participation

The Proposals for a National Strategy for Artificial Intelligence drafted by the MISE AI Expert Group in July 2020 followed a 2019 consultation on an initial set of proposals.[1969] The Expert Group was comprised of ten representatives of enterprises operating in the field of AI, ten representatives of research centers / think tanks or academia, and ten representatives of the labor market, professions, consumers and civil society.[1970]

A 2020 survey of Italian consumers by BEUC, the European Consumer organization, found substantial public concern about the

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[1966] See MITD, *Italia Digital 2026: Risultati 2021-2022 e Azioni Per 2023-2026* (2022), https://assets.innovazione.gov.it/1665677773-italia-digitale-2026.pdf

[1967] AGID, *Strategia per l'innovazione tecnologica e la digitalizzazione del Paese 2025* (2022), https://docs.italia.it/italia/mid/piano-nazionale-innovazione-2025-docs/it/stabile/index.html

[1968] European Commission, *Europe's Digital Decade: digital targets for 2030* (2022), https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en

[1969] Italian Ministry of Economic Development, *Strategia Nazionale per l'Intelligenza Artificiale (Bozza per la consultazione)* (July 2019), https://www.mise.gov.it/images/stories/documenti/Strategia-Nazionale-Intelligenza-Artificiale-Bozza-Consultazione.pdf

[1970] At pp. 14-15. https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf

deployment of AI.[1971] More than half of the respondents disagreed or strongly disagreed that current regulation is adequate to efficiently regulate AI. Over 70% of respondents in Italy "strongly agreed that users should be able to say 'no' to automated decision-making." More than half "(strongly) agreed that companies use AI to manipulate consumer decisions."

Data Protection

Since Italy is an EU Member State, the General Data Protection Regulation (GDPR)[1972] is directly applicable in Italy and to Italians. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[1973] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018. The Italian Data Protection Code contains provisions to adapt the national legislation to the GDPR.[1974]

Regarding the activities of law enforcement authorities, Italy transposed the EU Data Protection Law Enforcement Directive (LED)[1975] in 2018.[1976] "The directive protects citizens' fundamental right to data

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[1971] BEUC, *Artificial Intelligence: what consumers say – Finding and policy recommendations of a multi-country survey on AI* (2020), https://www.beuc.eu/publications/beuc-x-2020-078_artificial_intelligence_what_consumers_say_report.pdf

[1972] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

[1973] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1974] *Personal Data Protection Code Containing provisions to adapt the national legislation to Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC*, https://www.gpdp.it/documents/10160/0/PERSONAL+DATA+PROTECTION+CODE.pdf/96672778-1138-7333-03b3-c72cbe5a2021?version=1.0

[1975] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[1976] *Attuazione della direttiva UE 2016/680 del Parlamento Europeo e del Consiglio, del 27.4.2016, relativa alla protezione delle persone fisiche con riguardo al trattamento dei*

protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[1977] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[1978] The LED also requires for Member States, including Italy, to enable data subjects to exercise their rights via national data protection authorities.[1979]

"Consistency and a high level of protection among Member States is key in order to ensure effective judicial cooperation in criminal matters and police cooperation. The LED provides for the European Data Protection Board (EDPB) [of which the Italian data protection authority is a member] to issue guidelines, recommendations and best practices (on its own initiative or at the Commission's request) in order to ensure that the Member States apply the LED consistently."[1980] The EDPB has produced guidelines on the use of facial recognition technologies in the area of law enforcement.[1981] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such

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dati personali da parte delle autorità competenti ai fini di prevenzione, indagine, accertamento e perseguimento di reati o esecuzione di sanzioni penali, nonché alla libera circolazione di tali dati e che abroga la decisione quadro 2008/977/GAI del Consiglio, Gazzetta Ufficiale della Repubblica Italiana, (May 24, 2018).

[1977] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[1978] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[1979] Article 17 of the LED.

[1980] Communication from the Commission to the European Parliament and the Council, *First report on application and functioning of the Data Protection Law Enforcement Directive (EU) 2016/680 ('LED')*, COM/2022/364 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0364&qid=1658824345764#footnote136

[1981] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May 12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[1982]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Italy is also a member of the Council of Europe and ratified the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[1983]

AI Oversight

The Italian Data Protection Authority (DPA) "is an independent administrative authority established by the so-called privacy law (Law No. 675 of 31 December 1996) and regulated subsequently by the Personal Data Protection Code (Legislative Decree No. 196 of 30 June 2003) as amended by Legislative Decree No. 101 of 10 August 2018, which also established that the Italian DPA is the supervisory authority responsible for monitoring application of the General Data Protection Regulation (pursuant to Article 51 of Regulation No. 2016/679)."[1984] The DPA has direct sanctioning powers as well as extended enforcement capabilities.

The Italian DPA is a member of the Global Privacy Assembly (GPA) since 2002. The DPA was one of the three authors of the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence.[1985] The DPA also co-sponsored the 2020 GPA Resolution on AI Accountability.[1986]

[1982] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

[1983] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[1984] Garante per la Protezione dei Dati Personali, *Home*, https://www.garanteprivacy.it/web/garante-privacy-en

[1985] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[1986] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

However, it did not endorse the 2022 GPA Resolution on Facial Recognition Technology.[1987]

In January 2021, an Italian court determined that an algorithm which evaluates employee performance violates labor law.[1988] The case concerned the ranking algorithm of the food delivery service Deliveroo. The judge ruled that the algorithm unfairly assessed absent workers noting that it failed to take account of permissible reasons for absence. The court ordered the company to pay a fine and legal costs and to post the judgment.[1989]

In October 2021, the DPA banned remote surveillance of customer care employees for lack of respect of essential safeguards enshrined in the GDPR.[1990] The case originated from a complaint by an employee of a public transports operator, which concerned the processing of personal data relating to the company's call centre operators by way of the inbound calls management system. "The investigations by the Italian SA showed that the employees had not been informed adequately about the processing, and that the system in question allowed recording and replaying phone calls as well as storing, for an unspecified period, additional information on the individual operators' activities such as call duration, called numbers, date and time of each call. Since the software allowed the remote surveillance of workers, its deployment was to be made conditional on the enhanced safeguards set out in this respect by national law pursuant to Article 88 GDPR – namely, either an ad-hoc agreement with trade unions or an authorisation by the competent inspectorate for labour."[1991] The DPA fined the company EUR 30,000 taking also account of the cooperation provided in the course of the fact-finding activities; the company had immediately discontinued the processing following the on-site inspection.

[1987] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology (Oct. 2022)*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[1988] Forbes, *Deliveroo Rating Algorithm Was Unfair To Riders, Italian Court Rules* (Jan. 5, 2021)**,** https://www.forbes.com/sites/jonathankeane/2021/01/05/italian-court-finds-deliveroo-rating-algorithm-was-unfair-to-riders/?sh=34eb0a9e22a1

[1989] http://www.bollettinoadapt.it/wp-content/uploads/2021/01/Ordinanza-Bologna.pdf

[1990] European Data Protection Board, *Italian SA bans remote surveillance of customer care employees* (Oct. 28, 2021) https://edpb.europa.eu/news/national-news/2021/italian-sa-bans-remote-surveillance-customer-care-employees_en

[1991] European Data Protection Board, *Italian SA bans remote surveillance of customer care employees* (Oct. 28, 2021) https://edpb.europa.eu/news/national-news/2021/italian-sa-bans-remote-surveillance-customer-care-employees_en

Algorithmic Transparency

Italy is subject to the GDPR and Convention 108+. Italians have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[1992]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[1993] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[1994]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment,

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[1992] See Recital 63 and Article 22 of the GDPR. Article 9 c) of the Convention 108+ as well as Recital 77, *Explanatory Report, Convention 108+*, p. 24, https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1

[1993] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1994] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

including through the provision of easily accessible contact points and hotlines."[1995]

As for the public sector, in its 2018 White Paper on Artificial Intelligence at the service of citizens,[1996] the Agency for Digital Italy stressed the necessity for the functioning of AI systems to abide by criteria of transparency and openness. "Transparency is a fundamental prerequisite to avoid discrimination and solve the problem of informational asymmetry, thus guaranteeing for citizens the right to understand public decisions."[1997]

In May 2021, the Italian Court of Cassation released its judgment in *Garante per la Protezione dei Dati Personali v. Associazione Mevaluate Onlu.*[1998] The case concerned the Italian DPA's 2016 order to Mevaluate Italia s.r.l. to suspend the implementation of its online Artificial Intelligence system capable of analyzing documents voluntarily uploaded by users to provide reputational ratings. The Court of Cassation quashed the previous ruling of the Court of Rome, which had opined in favour of the lawfulness of the system as data subjects had provided their consent. The Court of Cassation found that the lack of transparency regarding Mevaluate's algorithms invalidates such consent, thus violating Article 8 of the EU Charter of Fundamental Rights, the GDPR and a series of articles of Legislative Decree No. 196 of 2003. It was further found that consent can only be valid if the data subject is appropriately informed about the purposes of processing and freely and specifically expresses their consent to the same. Consent cannot be considered as informed, if the logic involved in the algorithm remains unknown to the data subjects, as it was the case in Mevaluate reputational ranking system.

In July 2021, the DPA issued a 2.6 million Euros penalty to the on-demand delivery company Foodinho.[1999] The DPA identified some

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[1995] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[1996] Agency for Digital Italy, *White Paper on Artificial Intelligence at the service of citizens (2018)*, https://ia.italia.it/assets/librobianco.pdf

[1997] Agency for Digital Italy, *White Paper on Artificial Intelligence at the service of citizens (2018)*, p. 41, https://ia.italia.it/assets/librobianco.pdf

[1998] Data Guidance, *Italy: Court of Cassation rules that algorithm must be transparent for consent to be valid* (May 25, 2021), https://www.dataguidance.com/news/italy-court-cassation-rules-algorithm-must-be   For the judgment (in Italian) see http://www.italgiure.giustizia.it/xway/application/nif/clean/hc.dll?verbo=attach&db=snciv&id=./20210525/snciv@s10@a2021@n14381@tO.clean.pdf

[1999] IAPP, *Italian DPA fines food delivery app 2.6M euros for GDPR violations* (Jul. 6, 2021), https://iapp.org/news/a/italian-dpa-fines-food-delivery-app-3m-euros-for-gdpr-violations/

irregularities concerning the algorithm used by the company to rate drivers' performance. The DPA found that the controller had not adequately informed employees regarding the way the system worked and did not guarantee the accuracy and correctness of the results of the algorithms used to evaluate drivers. No information was provided regarding "significant information about the logic used as well as the importance and the consequences of such treatment of personal data by the riders."[2000] One of the issues of concern was the risk of discrimination arising from the algorithmic system and of relevance has been the decision of the Court of Cassation, a discussed above.

In February 2023, the DPA imposed a provisional limitation on the processing of Italian users' data by the US-based company that has developed and operates an App called Replika. The App features an AI-powered chatbot which generates a virtual friend using text and video interfaces. The App "carries factual risks to children – first and foremost, the fact that they are served replied which are absolutely inappropriate to their age."[2001] The App does not provide any age verification mechanism. According to the DPA, the App is in breach of the GDPR. The service provider's "privacy policy is not to be regarded as compliant with the transparency principles and obligations set out in the Regulation as it fails to disclose whatever information on the key elements of the processing at issue, in particular on the use of children's personal data, which is in breach of Article 13 of the Regulation."[2002] The personal data of children are processed unlawfully "since performance of a contract cannot be invoked as a legal basis, even implicitly, given that children are incapable to enter into a valid contract under Italian law."[2003]

[2000] Garante per la Protezione dei Dati Personali, *Ordinanza ingiunzione nei confronti di Foodinho s.r.l.* (June 10, 2021), https://www.gpdp.it/web/guest/home/docweb/-/docweb-display/docweb/9675440

[2001] Garante per la Protezione dei Dati Personali, *Artificial intelligence: italian SA clamps down on 'Replika' chatbot. Too many risks to children and emotionally vulnerable individuals* (Feb. 2, 2023), https://www.garanteprivacy.it/web/guest/home/docweb/-/docweb-display/docweb/9852506

[2002] Garante per la Protezione dei Dati Personali, *Provvedimento del 2 febbraio 2023* (English version), https://www.garanteprivacy.it/home/docweb/-/docweb-display/docweb/9852214

[2003] Garante per la Protezione dei Dati Personali, *Artificial intelligence: italian SA clamps down on 'Replika' chatbot. Too many risks to children and emotionally vulnerable*

Facial Recognition

According to Privacy International, the municipality of Como, Italy, purchased a facial recognition system "with little transparency and despite the lack of a clear legal framework."[2004] Privacy International reported that Como "embraced a narrative of technological innovation pushed by Huawei" within the broader concept of smart city and innovation tech, but after the intervention of the Italian Data Protection Authority (DPA), the municipality was obliged to suspend the system. The DPA determined that there was no legal basis to collect facial images. Subsequent reporting by Wired indicated that the municipality had changed vendors and also that the system installed most recently failed to work as proposed.[2005]

The Italian National Police intended to use a facial recognition system, called SARI Real-Time which would allow for real-time identification of migrants on boats upon their landing on Italian ports. The SARI Real-Time system, originally purchased to be employed during protests and public events, was discontinued following a decision by the DPA, who ruled in April 2021 that the system could open the doors to unjustified mass surveillance and that there was no legal basis to deploy it.[2006] The DPA "in line with the stance taken by the Council of Europe" considered "that the use of facial recognition for the purposes of preventing and suppressing crime is highly problematic."[2007]

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individuals (Feb. 2, 2023), https://www.garanteprivacy.it/web/guest/home/docweb/-/docweb-display/docweb/9852506

[2004] Privacy International, *How facial recognition is spreading in Italy: the case of Como* (Sept. 17, 2020), https://privacyinternational.org/case-study/4166/how-facial-recognition-spreading-italy-case-como

[2005] Laura Carrer, *The Municipality of Como has discovered that his facial recognition system is not what he had bought: The testing of the video surveillance system with facial recognition revealed inconsistencies and discrepancies with the tender specifications* (Sept. 28, 2020), https://www.wired.it/attualita/tech/2020/09/28/como-riconoscimento-facciale-collaudo/

[2006] Italian National Data Protection Authority, *Facial recognition: the SARI Real Time system is not compliant with privacy laws* (Apr. 16, 2021), https://www.garanteprivacy.it/web/guest/home/docweb/-/docweb-display/docweb/9575842; Laura Carrer and Riccardo Coluccini, Hermes Center for Transparency and Digital Human Rights, *Technologies for Border Surveillance and Control in Italy. Identification, Facial Recognition, and European Union Funding*, https://www.documentcloud.org/documents/21200979-technologies-for-border-surveillance-and-control-in-italy-identification-facial-recognition-and-european-union-funding?responsive=1&title=1

[2007] Garante per la Protezione dei Dati Personali, *Facial recognition: the SARI Real Time system is not compliant with privacy laws* (Apr. 6, 2021), https://www.garanteprivacy.it/web/guest/home/docweb/-/docweb-display/docweb/9575842

In December 2021, the Italian parliament introduced a moratorium on video surveillance systems that use facial recognition technologies. This law introduces a temporary ban for private entities as well as public authorities to use these systems in public places or places accessible to the public.[2008] The moratorium will be in force until December 31, 2023 at the latest, unless a new law is introduced before that date. According to EDRi, this is an important development, yet the moratorium contains major exceptions: "it only covers video surveillance systems with facial recognition, it doesn't take into account systems such as those developed by Clearview AI." The "moratorium allows the police to use such systems subject to a case-by-case approval by the DPA and it exempts judicial authorities and public prosecutors from any control."[2009] EDRi also remarked that "[u]ntil now, the Italian DPA had stopped the use of real-time facial recognition systems and remote biometric identification systems by the police and municipalities because Italy lacked a legal basis for the processing of biometric data by law enforcement authorities. Now this moratorium provides a legal basis and risks normalising the use of these technologies during police activities in the field of public security and for investigation and crime prosecution activities."[2010]

In March 2022, the DPA issued a 20 million euro fine on Clearview AI,[2011] a private firm that offers an identity matching service for law enforcement, reportedly powered by a database of around 10 billion faces made up by selfies scraped off the internet. The DPA fined Clearview AI "after finding it applied what amounted to biometric monitoring techniques also to individuals in the Italian territory."[2012] Italy issued the fine citing

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[2008] European Digital Rights, *Italy introduces a moratorium on video surveillance systems that use facial recognition* (Dec. 15, 2021), https://edri.org/our-work/italy-introduces-a-moratorium-on-video-surveillance-systems-that-use-facial-recognition/

[2009] European Digital Rights, *Italy introduces a moratorium on video surveillance systems that use facial recognition* (Dec. 15, 2021), https://edri.org/our-work/italy-introduces-a-moratorium-on-video-surveillance-systems-that-use-facial-recognition/

[2010] European Digital Rights, *Italy introduces a moratorium on video surveillance systems that use facial recognition* (Dec. 15, 2021), https://edri.org/our-work/italy-introduces-a-moratorium-on-video-surveillance-systems-that-use-facial-recognition/

[2011] Garante per la Protezione dei Dati Personali, *Riconoscimento facciale: il Garante privacy sanziona Cleariew per 20 milioni di euro. Vietato l'uso dei dayi biometrici e il montoraggio degli italiani* (2022), https://www.garanteprivacy.it/home/docweb/-/docweb-display/docweb/9751323, https://edpb.europa.eu/news/national-news/2022/facial-recognition-italian-sa-fines-clearview-ai-eur-20-million_en

[2012] Garante per la Protezione dei Dati Personali, *Facial recognition: Italian SA fines Clearview AI eur 20 million Bans use of biometric data and monitoring of Italian data subjects* (March 9, 2022), https://www.garanteprivacy.it/home/docweb/-/docweb-display/docweb/9751323

unlawful processing "without an appropriate legal basis" and "infringements of several fundamental principles including transparency – as it failed to adequately inform users –, purpose limitation – as it processed users' data for purposes other than those for which they had been made available online –, and storage limitation – as it did not set out any data storage period. Thus, Clearview AI is violating data subjects' freedoms including the protection of privacy and non-discrimination."[2013] The DPA also "ordered the company to erase the data relating to individuals in Italy; it banned any further collection and processing of the data through the company's facial recognition system. Clearview AI was finally ordered by the Italian SA to designate a representative in the EU to be addressed in addition to or instead of the US-based controller in order to facilitate exercise of data subject rights."[2014]

AlgorithmWatch reported in 2020 that Italy was exploring the use of facial recognition in football stadiums.[2015] In December 2022, Serie A CEO Luigi De Siervo announced that Italian league officals are working on a system of facial recognition technology to be used inside the stadiums to identify fans responsible for racist chants. According to De Servio: "We're still awaiting authorisation from privacy authorities but we should be able to get that with the help of the government."[2016]

AI Literacy

The development and implementation of AI technologies firmly depends on skills and competences. The Government has already shown its intention to strengthen the provision of AI competences at all education levels. At the primary and secondary education level, the government has launched the National Plan for the Digital School (PNSD) to update school curricula and promote new skills in digital education and AI-related

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[2013] Garante per la Protezione dei Dati Personali, *Facial recognition: Italian SA fines Clearview AI eur 20 million Bans use of biometric data and monitoring of Italian data subjects* (March 9, 2022), https://www.garanteprivacy.it/home/docweb/-/docweb-display/docweb/9751323

[2014] Garante per la Protezione dei Dati Personali, *Facial recognition: Italian SA fines Clearview AI eur 20 million Bans use of biometric data and monitoring of Italian data subjects* (March 9, 2022), https://www.garanteprivacy.it/home/docweb/-/docweb-display/docweb/9751323

[2015] AlgorithmWatch, *In Italy, an appetite for face recognition in football stadiums* (Sept. 16, 2020), https://algorithmwatch.org/en/story/italy-stadium-face-recognition/

[2016] All Football, *Serie A to tackle racism in Italy with facial recognition* (Dec. 17, 2022), https://m.allfootballapp.com/news/Serie-A/Serie-A-to-tackle-racism-in-Italy-with-facial-recognition/2136489

courses.[2017] At higher education levels, the government is encouraging the integration of courses with AI-related themes in bachelors, masters and doctoral programs. The planned budget also aims to support projects among PhDs, researchers and professors. Literacy campaigns will also be fostered via broadcasting and multimedia. Special attention will be devoted to informing about fake news and issues of cyber security.

In September 2022, in order to support the evolution and implementation of the PNSD in view of recent technological changes and the development of digital learning following the COVID-19 pandemic,[2018] the Ministry of Education established a scientific and technical Committee. The Committee of experts is in charge of outlining strategic paths to meet the growing demand for digital skills.[2019]

EdTech and Children Tracking

In November 2020, the Council of Europe Consultative Committee of the Convention 108 issued Guidelines on Children's Data Protection in an Education Setting, also applicable to remote e-learning solutions and services.[2020] The Committee recalls that "[t]he UN Convention Committee on the Rights of the Child set out in 2001, that "Education must be provided in a way that respects the inherent dignity of the child and enables the child to express his or her views freely.""[2021]

The Committee also states that: "Stakeholders should collaborate to create a rights-respecting environment, to uphold Article 8 of the European

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[2017] Ministry of Education, *Piano Nazionale Scuola Digitale* (2015), https://www.istruzione.it/scuola_digitale/allegati/Materiali/pnsd-layout-30.10-WEB.pdf

[2018] Ministry of Education, *Piano nazionale per la scuola digitale (PNSD), oggi il primo incontro del Comitato tecnico scientifico* (Oct. 11, 2022), https://www.miur.gov.it/web/guest/-/piano-nazionale-per-la-scuola-digitale-pnsd-oggi-il-primo-incontro-del-comitato-tecnico-scientifico

[2019] Minsitry of Education, *Decreto Dipartimentale n.2227 del 22 settembre 2022*, https://www.miur.gov.it/web/guest/-/decreto-dipartimentale-n-2227-del-22-settembre-2022

[2020] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data (Convention 108), *Guidelines on Children's Data Protection in an Education Setting* (Nov. 20, 2020), https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

[2021] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data (Convention 108), *Guidelines on Children's Data Protection in an Education Setting* (Nov. 20, 2020), p. 3, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

Convention on Human Rights and protect the human dignity and fundamental freedoms of every individual, in respect of data protection.

"Children cannot see or understand how large their digital footprint has become or how far it travels to thousands of third parties across or beyond the education landscape, throughout their lifetime. While children's agency is vital and they must be better informed of how their own personal data are collected and processed, there is at the same time a consensus that children cannot be expected to understand a very complex online environment and to take on its responsibilities alone."[2022]

"Processing must not involve more data than necessary to achieve the legitimate purpose. This is particularly important when consent cannot be freely given because the choice is to use a product and receive remote instruction or refuse and receive none."[2023] "A precautionary approach and a strengthened protection towards sensitive, special categories of data, including genetic and biometric data, and ethnic origin, or relating to sexual orientation, or offences, recognising children's additional vulnerability."[2024]

"Profiling of children should be prohibited by law. In exceptional circumstances, States may lift this restriction when it is in the best interests of the child or if there is an overriding public interest, on the condition that appropriate safeguards are provided for by law"[2025] "The Guidelines on artificial intelligence and data protection should be followed in educational settings, with regard to the automatic processing of personal data to ensure that AI applications do not undermine the human dignity, the human rights

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[2022] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data (Convention 108), *Guidelines on Children's Data Protection in an Education Setting* (Nov. 20, 2020), p. 4, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

[2023] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data (Convention 108), *Guidelines on Children's Data Protection in an Education Setting* (Nov. 20, 2020), p. 5, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

[2024] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data (Convention 108), *Guidelines on Children's Data Protection in an Education Setting* (Nov. 20, 2020), p. 8, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

[2025] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data (Convention 108), *Guidelines on Children's Data Protection in an Education Setting* (Nov. 20, 2020), p. 19, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

and fundamental freedoms of every child whether as an individual, or as communities, in particular with regard to the right to non-discrimination."[2026]

"Recognising that legislation on educational settings and other domestic and international law have an impact on how the data protection rules are applied, including the rights of data subjects, educational institutions need strong legislative frameworks and Codes of Practice to empower staff, and to give clarity to companies to know what is permitted and what is not, when processing children's data in the context of educational activities, creating a fair playing field for everyone. Policy makers and practitioners, including legislators, supervisory authorities in accordance with Article 15 (2)(e) of the Convention 108+, educational authorities and industry should follow and promote these Guidelines and implement measures to meet data protection and privacy obligations."[2027]

In May 2022, the WeSchool app, with an estimated 1.000.000 users in Italy, was analyzed as part of a global investigative report conducted by Human Rights Watch on the education technology (EdTech) endorsed by 49 governments, including Italy, for children's education during the pandemic. Human Rights Watch found that Italy's endorsement of this online learning platform put at risk or directly violated children's rights.

EdTech products, such as WeSchool, sent children's data to AdTech companies that specialize in behavioral advertising or whose algorithms determine what children see online. According to Human Rights Watch, in line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop, refine, and enforce modern child data protection laws and standards, and

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[2026] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data (Convention 108), *Guidelines on Children's Data Protection in an Education Setting* (Nov. 20, 2020), p. 19, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

[2027] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data (Convention 108), *Guidelines on Children's Data Protection in an Education Setting* (Nov. 20, 2020), p. 4, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

ensure that children who want to learn are not compelled to give up their other rights in order to do so.[2028]

Public Administration Digitization

In 2018, the Agency for Digital Italy issued a White Paper on Artificial Intelligence at the service of citizens.[2029] The objective is to give an important impulse to innovation in the public sector. The White Paper defines a plan to facilitate the adoption of AI technologies in the Italian Public Administration and improve the quality of public services. Artificial intelligence technologies can be implemented in healthcare, education, security, urban management. The White Paper includes a set of recommendations defining the challenges for developing and implementing AI technologies in the public sector. The White paper defines nine challenges:

- The ethical challenge: the anthropocentric vision on artificial intelligence technologies leads to look at AI technologies as at the service of humans. In this case, it is important to ensure that these technologies meet universal needs. The characteristics of AI technologies leads to raising questions concerning the quality of data, transparency and accountability, as well as protection of rights and freedoms. This step is critical in the public sector to ensure transparency and the respect of individuals' rights and freedoms.

- The technological challenge: AI technologies cannot still replicate the functioning of the human mind. There is the interest in improving and implementing these technologies to make the work of the Public Administration more effective.

- The skills challenge: citizens increasingly deal with digital technologies. Therefore, it is critical they understand how the Public Administration implements and uses artificial intelligence technologies to take decisions or provide public services. Civil servants need to constantly improve their skills to ensure they can effectively be aware of the opportunities and challenges of the implementation of AI technologies in the public sector.

[2028] Human Rights Watch, _How Dare They Peep into My Private Life_ (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments
[2029] Agency for Digital Italy, _White Paper on Artificial Intelligence at the service of citizens_, https://www.agid.gov.it/en/agenzia/stampa-e-comunicazione/notizie/2018/04/19/english-version-white-paper-artificial-intelligence-service-citizen-its-now-online

- The data challenge: data quality is one of the primary issues when implementing artificial intelligence technologies. Open data of public bodies can provide important information that would be very useful to generate applications of artificial intelligence at the service of the citizens. Therefore, it is critical to ensure equal and non-discriminatory access to public data.

- The legal challenge: in the field of AI technologies, it is necessary to reconcile the principle of transparency of administrative acts and procedures with the protection of privacy and personal data. A second issue of transparency concerns intellectual property rights over algorithms. Moreover, when the public administration implements decision-making process, it is necessary to deal with accountability.

- The implementation challenge: training public employees, particularly officials and managers, on the functioning, benefits, as well as ethical and technical implications on the use of AI technologies is critical to ensure the development of the public sector.

- The inequalities challenge: AI solutions can reduce social inequalities in the field of education and training, health and disability, knowledge and human rights. However, AI technologies can also increase inequalities like in the case of biased outputs. Therefore, the Public Administration should focus on implementing these technologies ensuring inclusiveness, accessibility, transparency, non-discrimination.

- The measurement challenge: The implementation of new technologies impact on citizens and institution. The Public Administration has not always the instruments to measure these effects. However, the introduction of AI technologies in the public sector can provide more information while requiring an impact assessment.

- The human being challenge: citizens and institutions should be aware of the effects of automated systems. Artificial intelligence systems are not only a matter of technology but also social innovation.
  The Minister of Technological Innovation and Digitization and Fondazione Leonardo have signed a Memorandum of

Understanding to shape the framework and boundaries for AI adoption in Public Administration.[2030]

Lethal Autonomous Weapons

Italy has been an active participant in Convention on Certain Conventional Weapons (CCW) meetings on killer robots since 2014. Italy has been supporting a two-track approach in favor of a legally binding solution with a combination of prohibitions and regulations. According to Italy, a two-track approach would maintain an element of human control while not interfering with the advancement of technology.[2031]

In a 2019 statement at the UN General Assembly, Italy emphasized that "any existing or future weapon system must be subjet to human control, particularly in relation to the ultimate decision to use lethal force."[2032]

In October 2022, Italy was one of 70 states that endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an international framework of rules and constraints.[2033] In this joint statement, States declared that they "are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[2034]

In February 2023, Italy participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Government

[2030] OECD, *Examples of National AI National Policies* (2020), pp. 61-62, https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf
[2031] Laura Varella, "*Discussions on Proposals,*" *Reaching Critical Will*, CCW Report, vol. 10, no. 7, (July 26, 2022), p. 3, https://reachingcriticalwill.org/images/documents/Disarmament-fora/ccw/2022/gge/reports/CCWR10.7.pdf
[2032] Government of Italy, *Statement to the UN General Assembly First Committee on Disarmament and International Security*, (October 14, 2019) https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com19/statements/14Oct_Italy.pdf.
[2033] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly,* (2022) https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/
[2034] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

representatives, including Italy, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[2035] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[2036]

Human Rights

Italy is a signatory to the major international human rights instruments, and generally ranks highly for the defense of human rights. In 2022, Freedom House gives Italy a "free" (90/100) rating for political rights and civil liberties.[2037] Freedom House notes that "[c]ivil liberties are generally respected, but concerns about the rights of migrants persist, and regional inequalities are substantial and persistent. Endemic problems of corruption and organized crime pose an enduring challenge to the rule of law and economic growth."[2038]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of

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[2035] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release,
https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action
[2036] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action
[2037] Freedom House, *Freedom in the World 2022 – Italy*,
https://freedomhouse.org/country/italy/freedom-world/2022
[2038] Freedom House, *Freedom in the World 2022 – Italy*,
https://freedomhouse.org/country/italy/freedom-world/2022

Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[2039]

The Rome Call for Ethics in AI

In February 2020, the Italian Government, together with the Pontificia Accademia per la Vita, Microsoft, IBM and FAO signed The Rome Call for Ethics in AI. This initiative is aimed at increasing awareness of the role of ethics in AIand proposes a more human-centric approach to AI.[2040] The Call sets out a program of "Algorithm Ethics" according to the "fundamental principles of good innovation," including Transparency, Responsibility, Impartiality, Reliability, Security and privacy. The Call is based on three principles:

- Ethics: All human beings are born free and equal in dignity and rights.
- Education: Transforming the world through the innovation of AI means undertaking to build a future for and with younger generations.
- Rights: The development of AI in the service of humankind and the planet must be reflected in regulations and principles that protect people – particularly the weak and the underprivileged – and natural environments.

In April 2021, the RenAIssance foundation was set up to guard and promote the Rome Call for AI Ethics.[2041]

In January 2023, representatives of the Chief Rabbinate of Israel's Commission for Interreligious Relations, the Pontifical Academy for Life

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[2039] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[2040] http://www.academyforlife.va/content/pav/it/events/workshop-intelligenza-artificiale.html

[2041] RenAIssance Foundation, *Second Anniversary of the Rome Call for AI Ethics,* (2022) https://www.romecall.org/second-anniversary-of-the-rome-call-for-ai-ethics-signed-in-rome-by-microsoft-ibm-fao-on-february-28-2020/

and Abu Dhabi Forum for Peace, commended a joint declaration on "AI Ethics: An Abrahamic Commitment to the Rome Call".[2042] The joint declaration is meant as a companion to the Rome Call.

Archbishop Vincenzo Paglia, President of the Pontifical Academy for Life and the RenAIssance Foundation, welcomed the participants to the event in which the joint declaration was issued with the following words: "We have gathered with our Jewish and Muslim brothers in an event of great importance to call upon the world to think and act in the name of brotherhood and peace – even in the field of technology. The signing of the Rome Call by Jewish and Muslim religious leaders and the joint call for algorethics to guide the design of artificial intelligence refer precisely to the increasingly urgent need to build paths of peace, mutual respect, dialogue and community."[2043]

OECD / G20 AI Principles

Italy endorsed the OECD and the G20 AI Principles.

In 2021, Italy hosted the G20 summit. Recognizing the "benefits stemming from the responsible use and development of trustworthy human-centered Artificial Intelligence (AI)," the G20 Leaders declared in Rome that they would encourage competition and innovation, "as well as diversity and inclusion."[2044] Artificial intelligence figured prominently in the G20 Declaration of the Digital Ministers who met in Trieste, Italy. They stated, "We reaffirm our willingness to implement trustworthy Artificial Intelligence (AI) and to commit to a human-centered approach, as decided in 2019 under the Japanese G20 Presidency, guided by the G20 AI Principles, drawn from the OECD Recommendations on AI."[2045]

Italy is also a founding member of the Global Partnership for AI, a multi-stakeholder initiative which aims to foster international cooperation

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[2042] *AI Ethics: An Abrahamic Commitment to the Rome Call* (Jan. 10, 2023), https://www.romecall.org/wp-content/uploads/2023/01/AI-Joint-Declaration-5-Jan1-1.pdf

[2043] RenAIssance Foundation, *The Abrahamic commitment to the Rome Call for AI ethics* (Jan. 10, 2023), https://www.romecall.org/the-abrahamic-commitment-to-the-rome-call-for-ai-ethics-10th-january-2023/

[2044] *G20 Rome Leaders Advance AI Policy, Elevate Privacy, Gender Equality*, CAIDP Update 2.40 (Oct. 31, 2021), https://www.caidp.org/app/download/8352831663/CAIDP-Update-2.40.pdf

[2045] G20 Information Centre, *Declaration of G20 Digital Ministers: Leveraging Digitalisation for a Resilient, Strong, Sustainable and Inclusive Recovery (Aug. 5, 2021), http://www.g20.utoronto.ca/2021/210805-digital.html*

on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[2046]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Italy is a UNESCO member since 1948. Italy endorsed the 2021 UNESCO Recommendation on AI Ethics,[2047] the first ever global agreement on the ethics of AI.

Evaluation

Italy has endorsed the OECD/G20 AI Principles and is a founding member of the Global Partnership on AI. The Rome Call for AI Ethics, undertaken by Pope Francis with the support of the Italian government and private companies, sets out a powerful vision for AI that is human-centric and that diminishes social inequality. Italy has also signed the UNESCO Recommendation on the Ethics of AI although it has yet to take steps to implement it.

Italy is subject to the GDPR and has ratified the modernized Council of Europe Convention 108, providing a high level of protection for personal data and the specific right of algorithmic transparency. The Italian Data Protection Authority has played a leading role in fundamental rights protection against possible encroachments stemming from the design or use of AI systems although the DPA has not endorsed the 2022 GPA Resolution on Facial Recognition Technology.

The national AI strategy with 24 policy initiatives and its focus on investment in three areas of interventions (Talent and Skills, Research, Applications) does not have the breath of the 2020 Proposals for a National Strategy for Artificial Intelligence and its 82 recommendations. However, the national strategy is defined as EU-centered and acknowledges the forthcoming EU AI Act.

[2046] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/.

[2047] UNESCO, *Recommendation on the Ethics of Artificial Intelligence* (Nov. 23, 2021) https://unesdoc.unesco.org/ark:/48223/pf0000381137

Jamaica

National AI Strategy

Jamaica has not developed a national AI strategy so far. However there are several significant policy initiatives worth mentioning.

Jamaica's 2009 National Development Plan, Vision 2030, which aims among others to advance the achievement of the UN Sustainable Development Goals, does not address per se digital policy. However, the Vision 2030 Jamaica Secretariat acknowledges in its reflections on the "perspectives on the future of national development planning post-COVID-19" that "[t]he advancement of technology enablement geared to support adaptation and agility and access to public goods and services for sustainable and inclusive growth. This includes digitalization and equity in access to technology products and services. It also includes the infusion of cultural values and norms that support the application of technology and innovation towards improved productivity, competitiveness, and growth."[2048]

Jamaica's Broadcasting Commission (BCJ) has been a leader in fostering a human-centered approach to AI in Jamaica and Small Island Developing States (SIDS). The BCJ is an "independent statutory agency which falls within the ambit of the Minister with responsibility for Information." Among others, the BCJ is mandated to "provide advice to policy makers in the formulation of policies for the [media] industry" and "conduct research on all areas relating to the electronic media in Jamaica."[2049] At the 2019 Regional Forum on Artificial Intelligence in Latin America and the Caribbean, Cordel Green, the Executive Director of the Broadcasting Commission, stated, "As we seek to understand the new environment and the broad impacts of AI on society, UNESCO'S ROAM principles (Rights, Openness, Accessibility to all, Multi stakeholder participation) are critical. We should resist technological determinism. AI must be designed to promote human well-being, enhance human

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[2048] Peisha Bryan-Lee, Travis Reid, Shannique Perry, Samantha Wilmot, *Vision 2030 Jamaica Secretariat, Planning Institute of Jamaica (PIOJ) Perspectives on the Future of National Development Planning - Post COVID-19* (Nov. 2021), https://www.vision2030.gov.jm/blog/perspectives-on-the-future-of-national-development-planning-post-covid-19-november-2021/
[2049] Broadcasting Commission of Jamaica, *About us*, https://broadcastingcommission.org/bchome/about-us/organisation-overview

performance and mitigate harm, (…) we must avoid the worst outcomes of the first industrial revolution which left millions of people behind. We can make AI the rising tide which lifts all ships." He also mentioned that "the role of the state is to ensure the regulation, support and planning of the sector by developing policies that address the needs of all citizens and do not undermine fundamental rights."[2050]

It is to address these issues, and because "Small Island Developing States must protect their own interests", that "the BCJ has spearheaded the Caribbean AI Initiative, which is a collaborative project with the UNESCO Cluster Office for the Caribbean,[2051] supported by UNESCO's Information For All Programme (IFAP)."[2052] The Initiative "aims to develop a sub-regional strategy on the ethical, inclusive and humane use of AI in the Caribbean Small Island Developing States".[2053] The Caribbean AI Policy Roadmap was released in June 2021,[2054] following a period of stakeholder consultation.[2055]

The Caribbean AI Policy Roadmap acknowledges that "AI systems raise new types of ethical issues that include, but are not limited to, their impact on decision-making in employment and labour, social interaction, health care, education, media, freedom of expression, access to information, privacy, democracy, discrimination, and weaponization. Furthermore, new ethical challenges are created by the potential of AI algorithms to reproduce biases, for instance regarding gender, ethnicity, and age, and thus to

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[2050] Broadcasting Commission of Jamaica, *BCJ Implores Governments Across the Region to Create AI Policies that Protect Small Island Developing States* (Dec. 14, 2019), https://broadcastingcommission.org/news-reports/news?download=237:bcj-implores-governments-across-the-region-to-create-ai-policies-that-protect-small-island-developing-states; See also Cordel Green and Anthony Clayton, *Ethics and AI Innovation* (March 2021), https://broadcastingcommission.org/news-reports/news?download=250:ai-ethics-and-innovation
[2051] UNESCO, *About the UNESCO Cluster Office for the Caribbean*, https://en.unesco.org/fieldoffice/kingston/about
[2052] Anthony Clayton and Cordel Green, *The BCJ at 35: People transitioning digital* (June 2021), https://broadcastingcommission.org/news-reports/news?download=253:the-bcj-at-35-people-transitioning-digital
[2053] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf
[2054] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf
[2055] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), p. 2, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

exacerbate already existing forms of discrimination, identity prejudice and stereotyping. As Caribbean nations expand their adoption of AI tools and other exponential technologies, stakeholders (policymakers, citizens, private sector, academia, and NGOs) must proactively collaborate to create strategies for the humanistic development of guidelines, regulations and laws. Boundaries should be defined to regulate the AI decision-making, AI rights, inclusion of manual overrides and AI accountability protocols."

The Policy Roadmap has been developed based on a series of "assumptions" about the Caribbean and Artificial Intelligence. These include: "Human creativity is inextricably linked to Caribbean identify, economic viability and sustainable development"; "AI is a product of human creativity"; "AI is in service of humanity"; "AI must be inclusive, fair, transparent, accountable"; "AI must be regulated"; "Human rights supersede AI rights"; "Bias is everywhere in AI"; "We Are Our Data"; "Data rights will be the civil rights movement of the 21st century."[2056]

The Policy Roadmap is based on six principles: Resiliency, Governance, Transformation, Upskilling, Preservation and Sustainability.[2057] With regard to governance, actions to be taken include: "Develop Responsible AI Governance, Oversight, Principles & Policies to Do No Harm and to enhance safety, security and accountability of AI. Promote AI as a tool for service to humanity. Establish common values and principles to ensure fairness, transparency and accountability in digital transformation and increased integration of AI algorithms. Develop policy and legislation to enable the establishment of national and regional AI Governance Committees / Oversight Boards as well as national and regional licensing regime to manage and monitor the development of standards that govern the industry including technical code of conduct for developers, procurement guidelines for buyers, design and use principles and ethically aligned design standards. Regulate AI industry to provide redress and punishment for individuals & companies that violate citizen rights and wellbeing including banning cyberbullying, hate crimes, discriminatory algorithms, disinformation and graphically violent images inclusive of penalties and fines. Develop an AI Appeal Court and Online Dispute Resolution System. Increase advocacy for AI ethics by targeting software developers at global forums and hosting a global software conference to

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[2056] Caribbean Artificial Intelligence Initiative, *Caribbean AI Policy Roadmap* (2021), p. 5, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

[2057] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), p. 11, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

network, lobby, share research and initiate collaborations with big tech. Develop AI software to test AI for biases and identify AI applications in most need of governance. Protect citizen privacy and instill trust."[2058]

Public Participation

The Caribbean AI Policy Roadmap was the object of a series of stakeholder consultations through the organization of forums and a poll. On February 18-19, 2021, a two-day "Artificial Intelligence Forum: Opportunities to Accelerate Human Progress for Sustainable Development in Caribbean Small Islands Developing States"[2059] was organized to collect input from diverse stakeholders regarding AI policy topics. In April 2021, three additional workshops addressing the AI Policy Roadmap principles were held with stakeholders from the private sector, academia, civil society and youth.[2060] More than one third of the participants were Jamaicans.[2061]

Data Protection and Algorithmic Transparency

In recognition of the Universal Declaration of Human Rights, the Jamaican Constitution was amended in 2011 to provide for a new Charter of Fundamental Rights and Freedoms. The section 13(3)(j) of the Charter provides for the right to privacy, including of communication.

Jamaica is one of the Caribbean SIDS which have prioritized developing laws similar to the European Union's General Data Protection Regulation (GDPR).[2062] In June 2020, the Government of Jamaica passed the Data Protection Act (DPA).[2063] The DPA established the Office of the Information Commissioner (OIC) to enforce data privacy rights outlined in the legislation. The OIC is responsible for monitoring compliance with the DPA; advising the Minister of Science, Energy and Technology on matters related to data protection; disseminating information to the public; drafting

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[2058] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), p. 41, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

[2059] UNESCO, *How can AI contribute to sustainable development? Caribbean Artificial Intelligence Forum*, February 18, 2021, https://en.unesco.org/news/how-can-ai-contribute-sustainable-development-caribbean-artificial-intelligence-forum

[2060] UNESCO, *Pioneering Artificial Intelligence Policy in the Caribbean* (Apr. 14, 2021), https://en.unesco.org/news/pioneering-artificial-intelligence-policy-caribbean

[2061] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), p. 41, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

[2062] *The General Data Protection Regulation* (GDPR) available at https://gdpr.eu/tag/gdpr/.

[2063] Alecia Smith, *Data Protection Bill Passed in the Senate*, Jamaica Information Service (June 13, 2020), https://jis.gov.jm/data-protection-bill-passed-in-the-senate/.

relevant guidelines. The first Information Commissioner was appointed in December 2021. In May 2022, the Minister of Science, Energy and Technology reportedly declared, "Since her appointment, the Commissioner has been taking steps to operationalize the Office. While the process is still in train, the Office has already been making strides in the data privacy and protection arena. The OIC has been leveraging various public awareness strategies to facilitate preliminary consultations regarding the issues and concerns of different interest groups."[2064] As of March 2023, the OIC does not benefit from a proper website with regular and detailed information on its action.[2065]

The DPA applies to both public and private sector organizations. Data controllers have until 1 December 2023 to implement the necessary measures to ensure DPA compliance. This concerns, among others, fairness and lawfulness, purpose limitation, data minimization, accuracy, storage limitation, respect for data subjects' rights. These rights include the right to personal data access; consent to processing; prevent processing, and rights in relation to automated decision-making.[2066]

Jamaica's OIC is not a member of the Global Privacy Assembly.[2067] The OIC has not adopted the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence[2068], the 2020 GPA Resolution on Accountability in the Development and Use of Artificial Intelligence[2069] and the 2022 GPA Resolution on Principles and Expectations for the

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[2064] Alecia Smith, *Office of the Information Commissioner being Operationalized*, Jamaica Information Service (May 15, 2022), https://jis.gov.jm/office-of-the-information-commissioner-being-operationalised/

[2065] Alecia Smith, *Office of the Information Commissioner being Operationalized*, Jamaica Information Service (May 15, 2022), https://jis.gov.jm/office-of-the-information-commissioner-being-operationalised/

[2066] Jamaica Parliament, *The Data Protection Act* (2020), https://japarliament.gov.jm/attachments/article/339/The%20Data%20Protection%20Act,%202020.pdf

[2067] Global Privacy Assembly, *List of accredited members*,

[2068] International Conference of Data Protection & Privacy Commissioner, *Declaration on Ethics and Data Protection in Artificial Intelligence* (2018), http://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[2069] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (2020), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

Appropriate Use of Personal Information in Facial Recognition Technology.[2070]

Algorithmic Transparency

The right to algorithmic transparency is provided by the DPA. One peculiarity is that access to this right is submitted to a "prescribed fee" which might have a deterrent effect even more so for underprivileged individuals.[2071]

The National Identification Systems

In a 2019 landmark decision, "Jamaica's Chief Justice Brian Sykes observed that the government's harsh decision to impose criminal sanctions to enforce compulsory registration by all citizens in a new digital ID system was a remarkable choice "in a democracy where the exercise of executive power rests upon the consent of the governed."

In December 2018, Jamaica adopted the National Identification Act (NIRA), which provided for the establishment of a National Identification System (NIDS) that "facilitates the enrolment of all citizens of Jamaica and all individuals who are ordinarily resident in Jamaica" for "the verification of identity information and the authentication of a National Identity Number and National Identity Card."[2072] "The NIRA was approved over the strong objection of sections of civil society and the parliamentary opposition. The law made formal registration by all citizens compulsory and required them to provide specific biometric information on pain of criminal sanctions. A central registering authority, created by the Act, was mandated to collect identity verifiers, including iris scans and fingerprints and using facial recognition technologies. However, in a departure which many citizens and the parliamentary opposition deemed unwarranted and extreme, the Act also required the capture of vein patterns, and if needed, footprints, toe prints,

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[2070] Global Privacy Assembly, *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence* (2022), https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[2071] See section 6 on the right of access to personal data; section 8 on Grounds limiting compliance with request for access of the DPA in Jamaica Parliament, *The Data Protection Act* (2020), https://japarliament.gov.jm/attachments/article/339/The%20Data%20Protection%20Act,%202020.pdf

[2072] Global Freedom of Expression, *Robinson v. Attorney General of Jamaica – Case Analysis* (Apr. 12, 2019), https://globalfreedomofexpression.columbia.edu/cases/robinson-v-attorney-general/#:~:text=A%20three%2Djudge%20bench%20of,right%20to%20privacy%20and%20equality

palm prints and the blood type of citizens and residents. The compilation and analysis of these biometrics were to be executed using big data analytics and pattern recognition technologies."[2073]

In *Julian J. Robinson v. The Attorney General of Jamaica*, the Supreme Court of Judicature of Jamaica ruled that the NIRA was unconstitutional and nullified it, on the grounds of violating the right to privacy and equality enshrined in the Jamaican Charter of Fundamental Rights. More particularly, "[t]he Court, while giving an extensive interpretation of the right to privacy held the mandatory nature of the Act and the criminal sanctions to be in violation of informational privacy and liberty of the individuals. The disproportionate measures used to enforce the Act, the lack of necessary and a legitimate purpose, and absence of safeguards against misuse of the data collected under the Act were the primary grounds on which the Court declared the Act to be unconstitutional."[2074]

In October 2021, a new Act, the National Identification and Registration Act of 2020, which allows for the voluntary submission of biometric information for participation in the NIDS, was passed. [2075] While this new Act has not been tested in court, it has attracted criticism from civil society organizations.[2076]

Facial Recognition

In 2016, the Passport, Immigration and Citizenship Agency (PICA) introduced facial recognition components to passport production with the objective to protect the identity of the citizen and reduce passport fraud.[2077] The implementation of facial recognition programs started through immigration kiosks at major airports in Kingston and Montego

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[2073] Hopeton S. Dunn, *Artificial intelligence and "consent of the governed": Pitfalls in developing Jamaica's digital ID system* (2019), https://giswatch.org/node/6176

[2074] Global Freedom of Expression, *Robinson v. Attorney General of Jamaica – Case Analysis* (Apr. 12, 2019), https://globalfreedomofexpression.columbia.edu/cases/robinson-v-attorney-general/#:~:text=A%20three%2Djudge%20bench%20of,right%20to%20privacy%20and%20equality

[2075] The Office of the Prime Minister, *Government Passes NIDS Bill After 40 Years* (Oct. 15, 2021), https://opm.gov.jm/news/government-passes-nids-bill-after-40-years/.

[2076] Erica Hellerstein, *Jamaica is Poised to End Data Privacy* (Sep. 15, 2021), https://www.codastory.com/authoritarian-tech/jamaica-digital-id/

[2077] FindBiometrics, *Jamaican Authorities to Use Facial Recognition in Passport Issuance* (Feb. 19, 2016), https://findbiometrics.com/archive/jamaican-facial-recognition-passport-issuance-302196/

Bay.[2078] Reportedly, in 2017, PICA "has moved a step closer to protecting the identity of Jamaicans by implementing, for the first time in Jamaica, a facial recognition system akin to the Automated Fingerprint Identification System (AFIS) currently in use by the police."[2079]

In recent years, law enforcement authorities in Jamaica have expressed interest in integrating police surveillance technologies into regular law enforcement practices.[2080] This is the case for example of the Jamaican Constabulary Force, Jamaica's primary domestic law enforcement agency. The agency has announced its procurement of various technologies, including predictive policing, networked camera systems, and DNA databases.[2081] A notable development occurred in July 2020, when media reports indicated that the Constabulary Force secretly deployed facial recognition technology to support routine law enforcement investigations.[2082] At issue was the use of facial recognition in the CCTV surveillance system known as JamaicaEye, a traffic monitoring technology.[2083] In June 2022, Jamaica's Security Minister Horace Chang "announced that an investment will be made to add more cameras to Jamaica Eye. As part of its thrust to incorporate technology in every day policing, (…) some 300 additional CCTV cameras will be installed across the corporate area." "To date, over 850 CCTV cameras have been installed across main townships."[2084]

Jamaica's largest life insurance company and pension fund manager has implemented "facial recognition technology that will replace the notarized certificate that they had to submit annually as 'proof of life' for

[2078] FindBiometrics, *Jamaican Authorities to Use Facial Recognition in Passport Issuance* (Feb. 19, 2016), https://findbiometrics.com/archive/jamaican-facial-recognition-passport-issuance-302196/

[2079] Karl Angell, *Passport office steps up a gear, Jamaica Observer* (June 28, 2017), https://www.jamaicaobserver.com/news/passport-office-steps-up-a-gear/

[2080] Jamaica Constabulary Force , *Policing Through Technology*', https://jcf.gov.jm/policing-through-technology

[2081] Jamaica Constabulary Force , *Policing Through Technology*', https://jcf.gov.jm/policing-through-technology

[2082] Adrian Frater, *A Criminal's Nightmare – Cops reaping successes from Chinese high-the surveillance system in MoBay*, The Gleaner (July 13, 2020), https://jamaica-gleaner.com/article/lead-stories/20200713/criminals-nightmare-cops-reaping-success-chinese-high-tech

[2083] Rosheika Grant, '*Jamaica Eye Assisting Crime Fighting*', Jamaica Information Service (March 1, 2021), https://jis.gov.jm/features/jamaicaeye-assisting-crime-fighting/

[2084] CVM-TV, *300 More Cameras for Jamaica Eye* (June 4, 2022), https://www.cvmtv.com/news/major-stories/300-more-cameras-for-jamaica-eye/

their pension payments to continue uninterrupted".[2085] According to the Financial Gleaner, "[p]ensioners will be required to upload a Government-issued picture ID, along with a short 'live' video of their face, once a year, which will be verified or validated by the facial recognition technology."[2086]

Lethal Autonomous Weapons

Jamaica is a member of the Non-Aligned Movement (NAM), which supports the negotiation of a legally binding instrument on autonomous weapons systems."[2087] Jamaica has attended some of the Convention on Certain Conventional Weapons (CCW) Group of Governmental Experts meetings on Lethal Autonomous Weapons Systems (GGE on LAWS) since 2014.[2088]

In February 2023, Jamaica endorsed, along with more than 30 other Latin American and Caribbean states, the Belén Communiqué,[2089] which calls for "urgent negotiation" of a binding international treaty to regulate and prohibit the use of autonomous weapons to address the grave concerns raised by removing human control from the use of force.

Human Rights

Since declaring independence from British colonial rule, Jamaica has been organized under a democratic political system featuring competitive elections, a vibrant civil society, and respect for the rule of law. Freedom House identifies Jamaica as a "free" society under its global freedom metrics.[2090] However, Freedom House also notes that "corruption remains a serious problem, and long-standing relationships between officials and organized crime figures are thought to persist. Violent crime

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[2085] Biometrics Updates*, Jamaica adopts remote biometric verification from Orba for pensioners*, (Feb. 16, 2023), https://www.biometricupdate.com/202302/jamaica-adopts-remote-biometric-verification-from-orba-for-pensioners

[2086] The Gleaner, *Sagicor to utilise facial recognition tech as proof of life for pensioners,* (Feb. 12, 2023), https://jamaica-gleaner.com/article/business/20230212/sagicor-utilise-facial-recognition-tech-proof-life-pensioners

[2087] Automated Decision Research, *Jamaica Report*, https://automatedresearch.org/news/state_position/jamaica/

[2088] Automated Decision Research, *Jamaica Report*, https://automatedresearch.org/news/state_position/jamaica/

[2089] Communiqué of the Latin American and the Caribbean Conference of Social and Humanitarian Impact of Autonomous Weapons (Feb. 24, 2023), https://www.rree.go.cr/files/includes/files.php?id=2261&tipo=documentos.

[2090] Freedom House, *Freedom in the World 2022 – Jamaica,* https://freedomhouse.org/country/jamaica/freedom-world/2022.

remains a concern, as does harassment and violence against LGBT+ people."[2091]

Jamaica has endorsed the Universal Declaration of Human Rights and ratified the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights.

OECD / G20 AI Principles

Jamaica has not endorsed the OECD AI Principles. However, according to the OECD, Jamaica's DPA "better aligns" the country with the OECD AI Principles as it includes the principles of "transparency, explainability and fairness" with regard to data collection and processing.[2092]

As also noted by the OECD, Jamaica is a "member state of the Inter-American Development Bank (IDB), which has adopted the OECD AI Principles as part of its fAIr LAC initiative."[2093] The OECD acknowledges the work of the Inter-American Development Bank and its ""fAIr LAC" initiative to promote the responsible and ethical use of AI and improve public services e.g., education, health, and social protection, in Latin American and Caribbean (LAC) countries,"[2094] including in Jamaica.

UNESCO Recommendation on the Ethics of Artificial Intelligence

Jamaica has endorsed the UNESCO Recommendation on the Ethics of AI[2095]. Jamaica's Broadcasting Commission played a leading role in the elaboration of the Caribbean AI Policy Roadmap which was drafted on the basis of a first draft of the UNESCO Recommendation.

[2091] Freedom House, *Freedom in the World 2022 – Jamaica,* https://freedomhouse.org/country/jamaica/freedom-world/2022.

[2092] OECD and Development Bank of Latin America (CAF), *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean* (March 2022), https://www.oecd-ilibrary.org/governance/the-strategic-and-responsible-use-of-artificial-intelligence-in-the-public-sector-of-latin-america-and-the-caribbean_1f334543-en

[2093] OECD and Development Bank of Latin America (CAF), *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean* (March 2022), https://www.oecd-ilibrary.org/governance/the-strategic-and-responsible-use-of-artificial-intelligence-in-the-public-sector-of-latin-america-and-the-caribbean_1f334543-en

[2094] OECD, *State of implementation of the OECD AI Principles* (June 2021), p. 76, https://www.oecd-ilibrary.org/docserver/1cd40c44-en.pdf?expires=1679145707&id=id&accname=guest&checksum=4A7E8011553F4B626AD9EF4C04ACCDE1.

[2095] UNESCO, *Ethics of Artificial Intelligence*, (Nov.1, 2021), https://unesdoc.unesco.org/ark:/48223/pf0000381137

CAF, the development bank of Latin America, and UNESCO signed a letter of intent to collaborate on the implementation of the Recommendation in Latin America and the Caribbean. They pledged to create a Regional Council composed of national and local governments in the region which will support their implementation efforts. It remains to be seen whether the Jamaican government will continue on the pioneering path opened by the Broadcasting Commission.

Evaluation

Jamaica, thanks to its Broadcasting Commission, has played a pioneering role in regional AI policy and has demonstrated a capacity and ability for leadership in the Caribbean SIDS. As an active member of the UNESCO Caribbean Cluster, Jamaica has participated in developing the Caribbean AI Policy Roadmap, which draws inspiration from a first draft of the UNESCO Recommendation on the Ethics of AI and reflects regional concerns of Caribbean SIDS regarding the environment, the history of colonialism, and the maintenance of distinctive Caribbean cultures. Jamaica has also demonstrated the oversight capacity of its judicial system with its Supreme Court striking down a law which would have implemented state surveillance through a mandatory AI-powered national identification system. Concerns persist however with regard to the growing use of facial recognition technology and it remains to be seen the concrete role that Jamaica's Information Commissioner will play.

Japan

National AI Strategy

Under the direction of former Prime Minister Shinzo Abe, Japan has emerged as a global leader in both AI policy and data governance. Abe declared in 2019 that "Artificial Intelligence (AI) must be used solely for humans and humans must be held responsible for its outcome. We will take the lead in establishing human-centered ethical principles for AI."[2096]

Earlier, in 2016, Prime Minister Abe called for the Japanese government to establish an "Artificial Intelligence Technology Strategy Council."[2097] The Council set out an Artificial Intelligence Technology Strategy and Industrialization Roadmap.[2098] The Roadmap focuses on public-private collaboration along the AI "full pipeline from Research and development to social implementation."

Japan's AI strategy emphasizes a risk-based, agile, and multi-stakeholder process, rather than a one-size-fits-all obligation or prohibition.[2099] Priority areas include productivity; health, medical care, and long-term care; mobility; and information security. The roadmap includes three phases: (1) the development and application of AI within various domains, (2) the public use of data and AI across those domains, and (3) the creation of ecosystems that integrate domains together. In August 2018, an action plan specified the objectives and timetable for accomplishment for each initiative under the Strategy.

The government established in parallel separate opportunities for the examination of ethical aspects of AI technology, intellectual property rights, personal information protection, and promotion of open data, as cross-

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[2096] Prime Minister of Japan, Speeches and Statements by the Prime Minister, *Policy Speech by Prime Minister Shinzo Abe to the 198th Session of the Diet* (Jan. 28, 2019), https://japan.kantei.go.jp/98_abe/statement/201801/_00003.html

[2097] Prime Minister of Japan, *Council for Science, Technology and Innovation* (Sept. 15, 2016), https://japan.kantei.go.jp/97_abe/actions/201609/15article2.html

[2098] Strategic Council for AI Technology, *Artificial Intelligence Technology Strategy* (Mar. 31, 2017), https://ai-japan.s3-ap-northeast-1.amazonaws.com/7116/0377/5269/Artificial_Intelligence_Technology_StrategyMarch2017.pdf; Ministry of Internal Affairs and Communications, *AI Strategy and Related Activities in Japan* (Oct. 25, 2017), http://events.science-japon.org/dlai17/doc/MIC%20-%20France-Japan%20Symposium%2020171025.pdf

[2099] Center for Strategic & International Studies, *Japan's Approach to AI Regulation and Its Impact on the 2023 G7 Presidency* (Feb. 14, 2023), https://www.csis.org/analysis/japans-approach-ai-regulation-and-its-impact-2023-g7-presidency

sectional items.[2100] Japan updated the AI Strategy in 2019,[2101] 2021[2102] and again in 2022.[2103]

The "purpose of this Strategy is to contribute to the resolution of global issues through the realization of Society 5.0 and to present a comprehensive policy package related to AI for overcoming Japan's own social issues and improving industrial competitiveness."[2104] The "Society 5.0" refers to "a human-centered society that balances economic advancement with the resolution of social problems by a system that highly integrates cyberspace and physical space."[2105]

"Based on the "Human-centered AI Social Principles", it is important to enable diverse human resources to contribute based on a wide range of knowledge, perspectives, ideas, etc., regardless of their diverse backgrounds such as gender, age, political beliefs, and religion."[2106]

The 2022 strategic objectives are: (0) dealing with imminent crises by establishing systems and technological infrastructures to maximize the protection of people's lives and property against pandemics and large-scale disasters; (1) developing and attracting "human resources for the AI era"[2107] in a sustainable manner; (2) "Japan should become a top runner in the application of AI in real-world industries and achieve enhanced industrial competitiveness" while contributing to "the promotion of sustainable industries and the achievement of the UN Sustainable Development Goals (SDGs) through innovation"[2108] "In addition, it is important to further improve the quality of services, improve the working environment, and ultimately reduce the financial burden by applying AI in the public

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[2100] Strategic Council for AI Technology, *Artificial Intelligence Technology Strategy* (Mar. 31, 2017), https://ai-japan.s3-ap-northeast-1.amazonaws.com/7116/0377/5269/Artificial_Intelligence_Technology_StrategyMarch2017.pdf

[2101] Prime Minister's Office, Japan, *AI Strategy 2019: AI for Everyone: People, Industries, Regions and Governments* (June 11, 2019), https://www.dataguidance.com/legal-research/ai-everyone-people-industries-regions-and-governments-11-june-2019

[2102] Cabinet Office, Science and Technology / Innovation, *AI Strategy 2021,* https://www8.cao.go.jp/cstp/ai/index.html

[2103] Cabinet Office, Science and Technology, *AI Strategy 2022* https://www8.cao.go.jp/cstp/ai/aistratagy2022en.pdf)

[2104] Ibid., p. 2.

[2105] https://www8.cao.go.jp/cstp/english/society5_0/index.html

[2106] Cabinet Office, Science and Technology, *AI Strategy 2022*, p. 3, https://www8.cao.go.jp/cstp/ai/aistratagy2022en.pdf)

[2107] Ibid., p. 5.

[2108] Ibid., p. 6.

sector"[2109] (3) realizing a "sustainable society with diversity"[2110] not only for Japan but also on a global scale to contribute in the achievement of SDGs; (4) "Japan should take the leadership to build an international network in the AI field for research, education and social infrastructure and accelerate AI research and development, human resources development, and achievement of SDGs"[2111]

Social Principles of Human-Centric AI

      Japan's 2019 "Social Principles of Human-Centric AI"[2112] were developed by the Council for Social Principles of Human-centric AI chaired by Professor Osamu Sudoh. The Social Principles specify the form of society that Japan should aim for, discuss impacts on society, present a set of AI social principles, and identify issues to consider in AI R&D and social implementation. They call for all relevant stakeholders to cooperate and interact closely.

      Three fundamental values underpin the Social Principles of Human-Centric AI: (1) Dignity – a society in which human dignity is respected; (2) Diversity and Inclusion – a society in which people with diverse backgrounds can pursue their own well-being; and (3) Sustainability – a sustainable society.

      The social principles themselves are meant to be implemented across the Japanese society, including national and local governments, as well as in multilateral frameworks. They include seven principles for AI:

> (1) Human-Centric – the utilization of AI must not infringe upon the fundamental human rights guaranteed by the Constitution and international standards and AI should be developed, utilized, and implemented in society to expand the abilities of people and allow diverse people to pursue their own well-being;
>
> (2) Education/Literacy – all stakeholders must have an accurate understanding of AI, knowledge, and ethics permitting appropriate use of AI in society;
>
> (3) Privacy Protection – AI should not infringe on a person's individual freedom, dignity or equality; AI using personal data should have mechanisms to ensure accuracy and legitimacy, and to allow individuals to be substantially involved in managing the

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[2109] Ibid., p. 6.
[2110] Ibid., p. 6.
[2111] Ibid., p. 7.
[2112] Cabinet Secretariat, Government of Japan, *Social Principles of Human-Centric AI* (Feb. 15, 2019), https://www.cas.go.jp/jp/seisaku/jinkouchinou/pdf/humancentricai.pdf

privacy of their personal data, personal data must be protected appropriately according to its degree of importance and sensitivity;
(4) Ensuring Security – a risk management approach is necessary;
(5) Fair Competition;
(6) Fairness, Accountability, and Transparency – it is necessary to ensure fairness and transparency in decision-making, appropriate accountability for the results, and trust in the technology so that people who use AI are not subject to undue discrimination with regard to personal background, or unfair treatment in terms of human dignity; and
(7) Innovation.

On January 28, 2022, Japan's Ministry of Economy, Trade and Industry (METI) updated the "Governance Guidelines for implementation of AI Principles" after additionally inviting experts from consumer protection and standardization, aiming to operationalize the AI principles that are required for the facilitation of deployment of AI.[2113]

The 2023 "Japanese G7 Presidency also intends to focus on (…) a human-centric approach to artificial intelligence, based on our shared democratic values."[2114]

AI Utilization Guidelines

The 2019 AI Utilization Guidelines[2115] provide practical guidance on matters to be considered by various stakeholders, including developers, end users, and data providers. Aimed to promote the benefits of AI and mitigate risks, the purpose of the Guidelines is to help AI service providers and business users to establish their own AI development and utilization guidelines, based on the Social Principles for Human-centric AI. The Guidelines set out ten principles to be considered, in full or in part, according to the purpose and social context of AI utilization: (1) proper

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[2113] METI, *Governance Guidelines for the Practice of AI Principles Ver. 1.1" has been compiled* (Jan. 28, 2022) [GT], https://www.meti.go.jp/press/2021/01/20220125001/20220124003.html; see also IAPP, *Japan publishes AI governance guidelines,* https://iapp.org/news/a/japan-publishes-ai-governance-guidelines/

[2114] G7 Germany 2022, *Ministerial Declaration, G7 Digital Ministers' meeting* (May 11, 2022), https://www.bundesregierung.de/resource/blob/998440/2038510/e8ce1d2f3b08477eeb29 33bf2f14424a/2022-05-11-g7-ministerial-declaration-digital-ministers-meeting-en-data.pdf?download=1

[2115] The Conference toward AI Network Society, *AI Utilization Guidelines Practical Reference for AI utilization* (Aug. 9, 2019), https://www.soumu.go.jp/main_content/000658284.pdf

utilization; (2) data quality; (3) collaboration; (4) safety; (5) security; (6) privacy; (7) human dignity and individual autonomy; (8) fairness; (9) transparency; and (10) accountability.

AI R&D Guidelines

The original AI R&D Guidelines are directed at developers.[2116] They include 9 principles related to (1) collaboration; (2) transparency; (3) controllability; (4) safety; (5) security; (6) privacy; (7) ethics (respect human dignity and individual autonomy); (8) user assistance; and (9) accountability.

The Japanese AI R&D Guidelines influenced global AI policies. The Japanese government proposed an international discussion on AI policy at the G-7 ICT Ministers' meeting in 2016 and presented the Guidelines to the G-7 Leaders meeting in Turin, Italy in 2017.[2117] The Japanese AI R&D Guidelines also contributed significantly to the development of the OECD AI Principles, the first global framework for AI Policy. The OECD AI Principles were adopted by 42 countries in May 2019, and then by G-20 Nations at the Leaders' Summit hosted in Osaka, last June 2019. OECD Secretary-General thanked Prime Minister Abe and said that the OECD AI Principles, endorsed by the G-20 nations, are "affirming that the AI we want is centered on people, respects ethical and democratic values, is transparent, safe, and accountable."

AI Governance in Japan

From a regulatory standpoint, Japan has no regulations that generally constrain the use of AI. According to a 2021 report published by the Ministry of Economy, Trade, and Industry (METI) which comprehensively describes Japan's AI regulatory policy, such "legally-binding horizontal requirements for AI systems are deemed unnecessary at the moment." According to this report, legislation faces difficulties in keeping up with the speed and complexity of AI innovation. A prescriptive, static, and detailed regulation in this context could stifle innovation. The government should respect companies' voluntary efforts for AI governance while providing non-binding guidance to support or guide such efforts. The

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[2116] The Conference toward AI Network Society, *Draft AI R&D GUIDELINES for International Discussions* (July 28, 2017),
https://www.soumu.go.jp/main_content/000507517.pdf
[2117] Conference toward AI Network Society, *Draft AI R&D Guidelines* (July 28, 2017)
https://www.soumu.go.jp/main_content/000507517.pdf

guidance should be based on multi-stakeholder dialogue and be continuously updated in a timely manner.[2118]

In the case of sector-specific regulations, none prohibit the use of AI, but rather require businesses to take appropriate measures and disclose information about risks.[2119] For example, the Digital Platform Transparency Act imposes requirements on large online malls, app stores, and digital advertising businesses to ensure transparency and fairness in transactions with business users, including the disclosure of key factors determining their search rankings.[2120] The Financial Instruments and Exchange Act[2121] requires businesses engaging in algorithmic high-speed trading to register with the government and requires them to establish a risk management system and maintain transaction records.[2122]

Public Participation

Japan organized a conference with public participation in advance of the 2016 G-7 ICT Ministers' meeting.[2123] The conclusions of the conference informed the 2016 Takamatsu Declaration.[2124] The G7 ICT Ministers agreed to promote ICT technology R&D for Artificial Intelligence; meet high standards of privacy and data protection; promote accessibility and digital literacy for everyone; and respect cultural and linguistic diversity.

[2118] Report from the Expert Group on how AI principles should be implemented, *AI Governance in Japan Ver. 1.1* (July 9, 2021),
https://www.meti.go.jp/shingikai/mono_info_service/ai_shakai_jisso/pdf/20210709_8.pdf

[2119] Center for Strategic & International Studies, *Japan's Approach to AI Regulation and Its Impact on the 2023 G7 Presidency* (Feb. 14, 2023),
https://www.csis.org/analysis/japans-approach-ai-regulation-and-its-impact-2023-g7-presidency

[2120] See METI, *Digital Platforms*,
https://www.meti.go.jp/english/policy/mono_info_service/information_economy/digital_platforms/index.html

[2121] Financial Instruments and Exchange Act (Act No. 25 of 1948),
https://www.fsa.go.jp/common/law/fie01.pdf

[2122] Center for Strategic & International Studies, *Japan's Approach to AI Regulation and Its Impact on the 2023 G7 Presidency* (Feb. 14, 2023),
https://www.csis.org/analysis/japans-approach-ai-regulation-and-its-impact-2023-g7-presidency

[2123] G7 Information Center, *Joint Declaration by G7 ICT Ministers* (April 30, 2016)
http://www.g8.utoronto.ca/ict/2016-ict-declaration-en.pdf

[2124] G7 Information Center, *Joint Declaration by G7 ICT Ministers (Action Plan on Implementing the Charter)* (April 30, 2016), http://www.g8.utoronto.ca/ict/2016-ict-declaration.html

In October 2016, Japan[2125] also launched a new public conference on the theme "Toward AI Network Society" with the participation of experts from industry, academia, and citizens to examine the social, economic, ethical, and legal implications of AI.[2126] The AI Network Society conference, chaired by Dr. Osamu Sudoh,[2127] formulated the AI R&D Guidelines. In 2019, another meeting of the Toward AI Network Society conference produced the AI Utilization Guidelines, "a commentary on the principles expected to be taken into consideration in the utilization of AI."[2128]

The 2022 AI Governance Guidelines were elaborated following public consultation. In 2021, the Ministry of Economy, Trade, and Industry issued a call for Public Comments on "AI Governance Guidelines for Implementation of AI Principles Ver. 1.1."[2129] The Governance Guidelines reflect the advice of companies, academics, legal experts, and auditors.

Data Protection

The 2003 Act on the Protection of Personal Information (APPI) initially governed data processing in the private sector only.[2130] As of April 2022, the APPI shall apply to the private sector, national administrative agencies, local governments, national and public hospitals, national and public universities, and national research and development corporations.[2131] This amendment accompanies the launch of a new Digital Agency in September 2021. The aim is "to accelerate the digitization of local and

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[2125] G7 Information Center, *Joint Declaration by G7 ICT Ministers (Action Plan on Implementing the Charter)* (April. 30, 2016), http://www.g8.utoronto.ca/ict/2016-ict-declaration.html

[2126] Ministry of Internal Affairs and Communications, Japan, *The Conference toward AI Network Society—Release of 2020 Report* (July 21, 2020), https://www.soumu.go.jp/main_sosiki/joho_tsusin/eng/pressrelease/2020/7/21_1.html

[2127] Professor at the Faculty of Global Informatics, Chuo University and Project Professor at the Graduate School of Interdisciplinary Information Studies, University of Tokyo.

[2128] The Conference toward AI Network Society, *AI Utilization Guidelines Practical Reference for AI utilization* (August 9, 2019), https://www.soumu.go.jp/main_content/000658284.pdf

[2129] METI, *Call for Public Comments on "AI Governance Guidelines for Implementation of AI Principles Ver. 1.0" Opens* (July 9, 2021) [GT], https://www.meti.go.jp/english/press/2021/0709_004.html

[2130] *Act on the Protection of Personal Information* (Act No. 57 of 2003), https://www.cas.go.jp/jp/seisaku/hourei/data/APPI.pdf; *Act on the Protection of Personal Information* (Consolidated text as of April 1, 2023), https://www.japaneselawtranslation.go.jp/en/laws/view/4241/en

[2131] *Outline of the Act on the Arrangement of Related Laws for the Formation of a Digital Society* (May 21, 2022), https://www.japaneselawtranslation.go.jp/outline/36/211105155408_905R305.pdf

central government after the COVID 19 pandemic further exposed the necessity of reformation". The Agency "commits to "Human-friendly digitalization: No one left behind", underpinned by the vision of "Government as a service" and "Government as a startup"."[2132]

The 2020 amendments to the APPI bring the law closer to the EU's General Data Protection Regulation (GDPR).[2133] The amendments upgrade individuals' rights, introduce the concept of pseudonymization, reinforce data breach reporting, and increase penalties for offenders. In January 2019, the European Commission adopted an adequacy decision on Japan's APPI, allowing personal data to flow freely between the two economies.[2134]

Prime Minister Abe put forward the concept of Data Free Flow with Trust (DFFT) in a speech at the World Economic Forum in January 2019.[2135] Abe said, "We must, on one hand, be able to put our personal data and data embodying intellectual property, national security intelligence, and so on, under careful protection, while on the other hand, we must enable the free flow of medical, industrial, traffic and other most useful, non-personal, anonymous data to see no borders, repeat, no borders." Abe underscored the importance of privacy protection, explaining that the DFFT regime should be built on "non-personal data." Abe further emphasized that the appropriate framework for the protection and governance of data according to their sensitivity would allow higher freedom of data flow across borders.

At the 2019 G20 Summit in Osaka, OECD Secretary Gurria described Abe's vision for Data Free Flow with Trust as "ambitious and

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[2132] Digital Agency, *Creation of the Digital Agency*, https://www.digital.go.jp/en/creation-en/. See also, Digital Agency, *Priority Policy Program for Realizing Digital Society*, https://www.digital.go.jp/assets/contents/node/basic_page/field_ref_resources/0f321c23-517f-439e-9076-5804f0a24b59/fdefa215/20220722_en_priority_summary_01.pdf

[2133] The 2020 Amendments will come into force on a date specified by a cabinet order, within two years after promulgation (June 12, 2020), https://www.ppc.go.jp/files/pdf/overview_amended_act.pdf

[2134] European Commission, *European Commission adopts adequacy decision on Japan, creating the world's largest area of safe data flows* (Jan. 23, 2019), https://ec.europa.eu/commission/presscorner/detail/en/IP_19_421; Masao Horibe, *The Realization of Mutual Adequacy Recognition Between Japan and the EU and Issues Raised in the Process*, Global Privacy Law Review, vol. 1, no. 3 (2020).

[2135] Ministry of Foreign Affairs, Japan, S*peech by Prime Minister Abe at the World Economic Forum Annual Meeting: Toward a New Era of "Hope-Driven Economy"* (Jan. 23, 2019), https://www.mofa.go.jp/ecm/ec/page4e_000973.html

timely."[2136] The G20 Leaders adopted the concept at the 2019 Summit,[2137] and reaffirmed the goal at the 2020 Summit in Riyadh.[2138]

Regulatory cooperation for DFFT was also discussed at the Digital Ministers' G7 Digital Track during the G7 Germany 2022 and it is expected to be a key topic during the G7 Digital Ministers' meeting in Takasaki in April 2023 as well.[2139]

The G7 2022 Action Plan for Promoting DFFT emphasized the importance of regulatory cooperation. Key topics for discussion include regulatory approaches related to privacy-enhancing technologies and interoperability of data protection frameworks, as well as regulatory cooperation between data protection and privacy authorities on enforcing data protection and related laws and regulations.[2140]

The third G7 Data Protection and Privacy Authorities Roundtable will take place in Japan in June 2023. Issues such as "the promotion of DFFT, cross-border enforcement cooperation and advanced technologies and privacy protection with the aim of fostering cooperation amongst each other" will be addressed.[2141]

[2136] OECD, _2019 G20 Leaders' Summit - Digital (AI, data governance, digital trade, taxation), Remarks by Angel Gurría_ (June 28, 2019),
https://www.oecd.org/g20/summits/osaka/2019-g20-leaders-summit-digital-osaka-june-2019.htm
[2137] The Japan Times, _Full text of the G20 Osaka leaders' declaration_ (June 29, 2019),
https://www.japantimes.co.jp/news/2019/06/29/national/full-text-g20-osaka-leaders-declaration/
[2138] G20 Riyadh Summit, _Leaders' Declaration_ (Nov. 21-22, 2020),
http://www.g20.utoronto.ca/2020/2020-g20-leaders-declaration-1121.html
[2139] G7 Germany 2022, _Ministerial Declaration, G7 Digital Ministers' meeting_ (May 11, 2022),
https://www.bundesregierung.de/resource/blob/998440/2038510/e8ce1d2f3b08477eeb2933bf2f14424a/2022-05-11-g7-ministerial-declaration-digital-ministers-meeting-en-data.pdf?download=1
[2140] G7 Digital Ministers' Track – Annex 1, _G7 Action Plan for Promoting Data Free Flow With Trust_, pp. 1-2, (May 11, 2022),
https://www.bundesregierung.de/resource/blob/998440/2038510/e8ce1d2f3b08477eeb2933bf2f14424a/2022-05-11-g7-ministerial-declaration-digital-ministers-meeting-en-data.pdf?download=1
[2141] Personal Information Protection Commission, _The 3rd G7 Data Protection and Privacy Authorities Roundtable_,
https://www.ppc.go.jp/en/aboutus/roles/international/conferences/g7injapan2023_en/.
See also See in particular, G7 Germany, _Roundtable of G7 Data Protection and Privacy Authorities_
https://www.bfdi.bund.de/SharedDocs/Downloads/EN/G7/Communique-2022.pdf?__blob=publicationFile&v=1

The Personal Information Protection Commission (PPC), established in 2016, supervises the implementation of the APPI. PPC members exercise their official authority independently. The PPC also supervises the implementation of the My Number Act, which regulates the use of numeric identifiers for social security and taxation.[2142]

The PPC is a member of the Global Privacy Assembly since 2017.[2143] The PPC endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[2144] the 2020 GPA Resolution on AI Accountability,[2145] the 2022 GPA Resolution on Facial Recognition Technology.[2146]

Algorithmic Transparency

Japanese law does not contain a general right of algorithmic transparency.[2147] However, there are specific provisions for certain sectors. For example, for financial services, the Comprehensive Guidelines for Supervision over Major Banks require that the concerned individual be provided with specific explanations of the reasons for the rejection of a request to conclude a loan agreement.[2148]

[2142] Personal Information Protection Commission, *Act on the Use of Numbers to Identify a Specific Individual in the Administrative Procedure* https://www.ppc.go.jp/files/pdf/en3.pdf

[2143] 39th International Conference of Data Protection and Privacy Commissioners, *Accreditation resolution* (Sept. 26, 2017), http://globalprivacyassembly.org/wp-content/uploads/2015/02/Accreditation-resolution-2017.pdf

[2144] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[2145] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[2146] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[2147] See also in this regard, Ante Wessels, *EU trade agreement with Japan undermines algorithmic transparency,* Vrijschrift (June 6, 2018), https://www.vrijschrift.org/serendipity/index.php?/archives/223-EU-trade-agreement-with-Japan-undermines-algorithmic-transparency.html

[2148] Official Journal of the European Union, *Commission Implementing Decision (EU) 2019/419 of 23 January 2019 pursuant to Regulation (EU) 2016/679 of the European Parliament and of the Council on the adequate protection of personal data by Japan*

In July 2022, the Tokyo District Court ruled in favor of Hanryumura, a Korean-style BBQ restaurant chain operator in an antitrust case brought against Kakaku.com, operator of Tabelog, Japan's largest restaurant review platform. Japanese legal experts have said an antitrust case related to a local restaurant website could change how large internet platforms such as Google, Facebook, and Amazon operate in the country, forcing them to reveal the inner workings of their secret algorithms. "There hasn't been a case in competition law anywhere else in the world where a court has requested a digital platform to disclose its algorithm," said Kentaro Hirayama, a lawyer specializing in antitrust issues and formerly with Japan Fair Trade Commission, the country's antitrust regulator. The internet company has appealed against the decision.[2149]

Facial Recognition

Japan has deployed facial recognition in several sectors, including transportation, banking (ATMs), police, and immigration. According to Japan Times, Japan used facial recognition technology, originally intended for security purposes, to prevent the spread of the novel coronavirus when it hosted the Tokyo Olympics and Paralympics in 2021.[2150] "During the Tokyo Olympics, as many as 303 facial recognition terminals were in operation and used to verify the identity of visitors as they entered the venues. The system was used against 430,000 people at the Olympics and 300,000 people at the Paralympics." Go Iwashita, the Director of the Security Bureau for Tokyo Organizing Committee for the Olympic and Paralympic Games, said "Throughout the game, four million facial recognition operations had been performed and we received no reports of failure."[2151]

Osaka Metro Co. has developed automated ticket gates with facial recognition with a view to equipping all metro stations in Osaka by 2024,

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[2149] *under the Act on the Protection of Personal Information* (March 19, 2019) (par. 93), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019D0419
[2149] Financial Times, *Japanese court ruling poised to make Big Tech open up on algorithms* (July 3, 2022) https://www.ft.com/content/f360f766-7865-4821-b740-ca0276efec19
[2150] The Japan Times, *Facial Recognition*, https://www.japantimes.co.jp/news/2020/10/22/national/facial-recognition-coronavirus-olympics/; Find Biometrics, *Japan to Pair Face Recognition with Mask and Temperature Detection During Tokyo Olympic* (Oct. 22, 2020), https://findbiometrics.com/japan-pair-face-recognition-mask-temperature-detection-during-tokyo-olympics-102209/
[2151] The Huffington news (in Japanese), https://www.huffingtonpost.jp/entry/nec-visionary-week-2021_jp_618cdfc8e4b0b1aee9213aff

ahead of the 2025 World Expo.[2152] Likewise, the Japanese Ministry of Economy, Trade and Industry is testing facial recognition ticketing on driverless buses in several cities across the country.[2153]

In September 2020, Japan Times reported that Japanese Police Forces have been using facial recognition technology across the nation since March 2020 to locate criminal suspects. Critics warned that the system could transform the country into a surveillance society unless it operates under strict regulations, a senior National Police Agency (NPA) official said "we are using the system only for criminal investigations and within the scope of the law. We discard facial images that are found to be unrelated to cases."[2154] The NPA manages and utilizes facial images under rules set by the National Public Safety Commission,[2155] as it does with fingerprints and DNA. The agency's database currently holds 10 million facial images of criminal suspects.

Japan does not have specific legislation for facial recognition in the government sector. As of September 2020, the Japanese APPI covers the use of facial biometric data gathered from security cameras.[2156] Law enforcement is however exempt from this type of privacy regulation. APPI also allows the use of anonymized facial recognition data beyond the intended purposes if such data is sufficiently protected from being restored to its original form. The Personal Information Protection Commission formed a committee of experts in January 2022 to review and prepare a guideline for the appropriate use of camera images for crime prevention and

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[2152] The Japan Times, _Osaka Metro unveils ticket gate with facial recognition tech_ (Dec. 10, 2019), https://www.japantimes.co.jp/news/2019/12/10/business/corporate-business/osaka-metro-facial-recognition/

[2153] NFCW, _Japanese passengers test facial recognition ticketing on driverless buses_ (Sept. 10, 2020) https://www.nfcw.com/2020/09/10/367826/japanese-passengers-test-facial-recognition-ticketing-on-driverless-buses

[2154] Biometric Update, _Police in Japan reveal use of facial biometrics in criminal probes_ (Sept. 16, 2020), https://www.biometricupdate.com/202009/police-in-japan-reveal-use-of-facial-biometrics-in-criminal-probes

[2155] The National Public Safety Commission is a Japanese Cabinet Office commission which guarantees the neutrality of the police system by insulating the force from political pressure and ensuring the maintenance of democratic methods in police administration. It administers the National Police Agency, and has the authority to appoint or dismiss senior police officers. https://en.wikipedia.org/wiki/National_Public_Safety_Commission_(Japan)

[2156] Biometric Update, _Police in Japan reveal use of facial biometrics in criminal probes_ (Sept. 16, 2020), https://www.biometricupdate.com/202009/police-in-japan-reveal-use-of-facial-biometrics-in-criminal-probes

safety in public spaces.[2157] The draft guidelines were released for public comment in January 2023. According to them, the PPC supports the use of facial recognition cameras in public places for crime prevention or security purposes, but recommends that operators increase transparency so as not to cause undue anxiety to those being filmed. [2158]

Biometric Identification

In 2021, the Digital Agency has been endowed with the task to accelerate the digitization of public services, industries and lifestyle through the My Number System and My Number Card. My Number System relates primarily to the Social Security and Tax Number System which provides one unique number to all registered residents in Japan. The system serves to centralize all personal information dispersed across various administrations with the aim to improve the efficiency of public services. The My Number Card can be used as an official identification card as well as a multi-purpose card for a wide-range of public services or for various private on-line transactions.

Before the COVID-19, the former Director-General of the Administrative Management Bureau at the Ministry of Internal Affairs and Communications, Susumu Kamimura, explained that among the reasons why AI usage progressed slowly in the Japanese Public sector are the "black-box effect" and the "privacy issue". As for the black box effect, "this is more likely the reason AI has not been deployed in the public sector, where transparency and accountability are often more important than efficiency and low-cost."[2159] "The privacy issue is another factor. Japanese people are extremely sensitive to a lack of privacy, and that is the main reason Japan does not have a true national ID system, and its partial substitute – My Number – has not been fully implemented. An AI-powered precise identification of personal features will not be readily tolerated."[2160]

In October 2022, a survey on attitudes toward the My Number Card by Kioicho Strategy Institute showed that, "Among respondents, 59.4% said they have a My Number Card, which roughly corresponds to the 55.7% of Japanese as a whole (…). By contrast, 18.4% of respondents said that they had no intention of obtaining a card." "As a means of promoting the My

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[2157]Personal Information Protection Commission, https://www.ppc.go.jp/personalinfo/camera_utilize/

[2158]Personal Information Protection Commission, https://www.ppc.go.jp/personalinfo/camera_utilize/

[2159] Susumu Kamimura, *Artificial Intelligence and Lessons from Japan's Public Sector*, Nihon University Bulletin 60 (2018), p. 11, https://www.publication.law.nihon-u.ac.jp/pdf/bulletin/bulletin_60/each/12.pdf

[2160] Ibid., p. 10.

Number Card scheme, the government is conducting a campaign to give card holders up to ¥20,000 worth of My Number Points that can be used for shopping and other purposes. The campaign seems to be having a certain effect, with 56% of respondents that have cards saying they have received points. However, when asked if they have used their My Number Card for purposes such as identification or applications to government agencies, only 29.9% said they have." "Although the use of My Number Cards to verify health insurance status was introduced in October 2021, only 3.3% of the respondents had registered and were using the IDs in lieu of standard health insurance cards, while 35.3% had registered but not yet used the card or had not found medical institutions where it could be used."[2161]

In February 2023, the Tokyo Medical Practitioners Association filed a lawsuit against the government with the Tokyo District Court to prevent the replacement of patients' insurance cards with My Number from April 2023. "The suit claims that in order for the government to require medical institutions to accept My Number cards, the Health Insurance Act should be amended."[2162]

EdTech and Children Tracking

In May 2022, Human Rights Watch published a global investigative report on the education technology (EdTech) endorsed by 49 governments, including Japan, for children's education during the pandemic. Based on technical and policy analysis of 163 EdTech products, Human Rights Watch found that governments' endorsements of the majority of these online learning platforms put at risk or directly violated children's rights.

Some EdTech products targeted children with behavioral advertising. Many more EdTech products sent children's data to AdTech companies that specialize in behavioral advertising or whose algorithms determine what children see online. According to Human Rights Watch, in line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop,

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[2161] *Only Fraction of Japanese Residents Use My Number ID Card for Health Insurance*, nippon.com (Nov. 7, 2022), https://www.nippon.com/en/japan-data/h01482/
[2162] Alessandro Mascellino, *Doctors in Japan challenge govt mandatory use of digital ID for health services* (Feb. 23, 2023), https://www.biometricupdate.com/202302/doctors-in-japan-challenge-govt-mandatory-use-of-digital-id-for-health-services

refine, and enforce modern child data protection laws and standards, and ensure that children who want to learn are not compelled to give up their other rights in order to do so.[2163]

Lethal Autonomous Weapons

Since 2014, Japan has participated in international talks on lethal autonomous weapons systems. Japan often states that it has "no plans" to acquire such weapons and highlights the need to retain meaningful human control over the use of force. However, Japan does not support the negotiation for a new treaty to address mounting concerns over fully autonomous weapons and has yet to join the group of 29 countries calling for a prohibition on such weapons.[2164]

In December 2021, Japan and other countries blocked any advancement in U.N. talks toward legally binding measures to ban and regulate the development and use of lethal autonomous weapon systems. The Sixth Review Conference of the Convention on Certain Conventional Weapons ended in December 2021 in Geneva without progress, failing to reflect eight years of work and leaving countries and nongovernmental organizations that have called for legally binding rules expressing disappointment.[2165]

At the 77th UN General Assembly First Committee meeting in October 2022, Japan issued a statement, noting that the country "recognizes the meaningful results achieved by the Group of Governmental Experts (GGE) in the discussion on emerging technologies in the area of lethal autonomous weapons systems (LAWS) in the past years, as one of the key topics under the CCW. Despite the sensitivity and complexity of this issue, intensive deliberations at the GGE meetings have significantly contributed to fostering bases for common understanding. Japan believes it is beneficial for the High Contracting Parties to continue the discussion on LAWS step-by-step within the CCW framework. Japan also welcomes many proposals submitted to the GGE this year to advance such discussion. Japan will

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[2163] Human Rights Watch, _How Dare They Peep into My Private Life_ (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[2164] Human Rights Watch. _Japan: Retain Human Control Over the Use of Force_ (Sept. 6, 2019), https://www.hrw.org/news/2019/09/06/japan-retain-human-control-over-use-force

[2165] Japan Times, _Japan and U.S. block advancement in U.N. talks on autonomous weapons_ (Dec. 20, 2021), https://www.japantimes.co.jp/news/2021/12/20/world/politics-diplomacy-world/japan-us-autonomous-weapons/

continue to actively contribute to international rule-making."[2166] Japan were also among the 70 countries which delivered a joint statement on autonomous weapons systems at the 77th UN General Assembly. In this joint statement, States urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[2167]

On February 16-17, 2023, the Dutch Government organized the first global Summit on Responsible Artificial Intelligence in the Military Domain (REAIM) in The Hague. On this occasion, government representatives, including Japan,[2168] agreed a joint call to action on the responsible development, deployment and use of artificial intelligence in the military domain.[2169]

Human Rights

According to Freedom House, Japan's Global Freedom Score in 2021 was 96/100. Based on the latest Freedom House's Country Report, political rights and civil liberties in Japan are generally well respected. Outstanding challenges include ethnic and gender-based discrimination and claims of improperly close relations between the government and the business sector.[2170]

[2166] UN General Assembly, *Statement of Japan at the First Committee of the 77th Session of the General Assembly* (Oct. 2022),
https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com22/statements/21Oct_Japan.pdf

[2167] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022),
https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

[2168] Government of the Netherlands, *REAIM 2023 Endorsing Countries* (Feb. 21, 2023),
https://www.government.nl/documents/publications/2023/02/16/reaim-2023-endorsing-countries

[2169] Government of the Netherlands, *REAIM 2023 Call to Action* (Feb. 16, 2023),
https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[2170] Freedom House, *Freedom in the World 2022 – Japan (2022),*
https://freedomhouse.org/country/japan/freedom-world/2022

OECD AI Principles

Japan endorsed the OECD and the G20 AI Principles and is a member of the Global Partnership on AI (GPAI). Japan was a catalyst for the adoption of the OECD AI Principles at the G20 Ministerial meeting in Tsukuba and the G20 Leaders' Summit in Osaka, Japan, in 2019.[2171]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Japan, along with 192 other States, endorsed the UNESCO Recommendation on the Ethics of AI in November 2021.

METI has been holding meetings of the Expert Group on how AI principles should be implemented. While compiling its report on the AI Governance in Japan, the Expert Group acknowledged the UNESCO Recommendation as part of the "high-level guidance from AI principles to implementation" while describing "the governance structure in the era of Society 5.0."[2172] The Japanese Government also supported the launch of a platform in the UNESCO Southern Africa sub-region for the implementation of the Recommendation.[2173]

Evaluation

Japan is a pioneer in the field of AI policy. Japan hosted the G20 Leaders' meeting in Osaka in 2019 at which time the G20 nations endorsed the OECD AI Principles. The former Prime Minister Shinzo Abe promoted the concept of Data Free Flow with Trust (DFFT), a core concept for human-centric AI, that carries forward in the policy recommendations of the OECD, the G20, the G7 and the European Commission. Japan also endorsed the UNESCO Recommendation on the Ethics of AI and is taking steps towards its implementation. However, concerns about the unregulated use of facial recognition, and the post-COVID 19 accelerated digitization of the public sector, industries and above all citizens' lifestyle remain.

[2171] CAIDP Update 1.7, *Prime Minister Abe's AI and Data Governance Legacy* (Aug. 30, 2020), https://dukakis.org/center-for-ai-and-digital-policy/caidp-update-prime-minister-abes-ai-and-data-governance-legacy

[2172] Report from the Expert Group on how AI principles should be implemented, *AI Governance in Japan Ver. 1.1* (July 9, 2021), p. 9, https://www.meti.go.jp/shingikai/mono_info_service/ai_shakai_jisso/pdf/20210709_8.pdf

[2173] UNESCO Executive Board, *Implementation of the recommendation on the ethics of artificial intelligence*, Item 40 of the provisional agenda (Oct. 7, 2022), pp. 2-3, https://unesdoc.unesco.org/ark:/48223/pf0000382931

Kazakhstan

National AI Strategy

In recent years, Kazakhstan has taken an active interest in AI and new technologies to reform the country's economy and extend internal security and policing.[2174] Kazakhstan has also expressed interest in Russia's AI development.[2175] Although Kazakhstan has not defined a precise AI strategy yet, the government has set out an AI and other smart technologies Agenda in 2017. This includes the cultivation and creation of new industries with the use of digital technologies, and productivity growth through the widespread introduction of automation, robotics, AI, and the exchange of big data.[2176] One of Kazakhstan's primary purposes in embracing AI is to spark foreign investment in the country to diversify the economy and reduce its economic dependence on natural resources.[2177] Developing AI is a means for Kazakhstan to strengthen social governance and welfare. Kazakhstan's 2017 AI Agenda mentions the threat of terrorism growth and the prevention of religious extremism propaganda on the Internet and social networks.[2178]

The state program "Digital Kazakhstan" describes the implementation of this Agenda through the realization of the following projects in the AI sector:[2179]

- Creation of an international technopark of IT start-ups (Astana Hub)
- Creation of model factories based on Industry 4.0 technologies

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[2174] Trend News Agency, *Work is underway in Kazakhstan to introduce the concept of "Data-Driven Government*," (Dec. 4, 2020),
https://www.trend.az/casia/kazakhstan/3345220.html

[2175] Tass, *Kazakhstan interested in Russia's experience in AI development* ("President Kassym-Jomart Tokayev pointed out that digitalization of the Eurasian Economic Union (EAEU) should become a top priority for the Eurasian Economic Commission"), (Dec. 4, 2020), https://tass.com/world/1231509

[2176] Akorda, *The President of Kazakhstan Nursultan Nazarbayev's Address to the Nation of Kazakhstan Third Modernization of Kazakhstan: Global Competitiveness* (Jan. 31, 2017), http://www.akorda.kz/en/addresses/addresses_of_president/the-president-of-kazakhstan-nursultan-nazarbayevs-address-to-the-nation-of-kazakhstan-january-31-2017

[2177] Rebelionresearch, *Kazakhstan's Ai Aspirations* (Dec. 02, 2019),
https://www.rebellionresearch.com/blog/kazakhstan-s-ai-aspirations

[2178] Akorda, *The President of Kazakhstan Nursultan Nazarbayev's Address to the Nation of Kazakhstan Third Modernization of Kazakhstan: Global Competitiveness* (Jan. 31, 2017), http://www.akorda.kz/en/addresses/addresses_of_president/the-president-of-kazakhstan-nursultan-nazarbayevs-address-to-the-nation-of-kazakhstan-january-31-2017

[2179] Adilet, *On approval of the State Program "Digital Kazakhstan"(Об утверждении Государственной программы "Цифровой Казахстан"),*
http://adilet.zan.kz/rus/docs/P1700000827

- Development of open platforms (Open API), Big Data, and AI
- Development of telecommunications infrastructure, including broadband internet access
- Development of innovative financial technologies
- Implementation of Smart City components

The country has established several IT and research centers that are planned to be the flagships for the development of AI in Kazakhstan: Nazarbayev University, Astana International Financial Centre and Astana International Technology Park of IT Startups. Despite these aspirations, Kazakhstan has only scored 45.78 out of 100 in the Government AI Readiness Index, with the lowest score in the technology sector.[2180] A dearth of qualified IT specialists[2181] and low R&D spending (0.13% of GDP in 2021)[2182] are two significant barriers to a dynamic and innovative technology sector. According to Kazakhstan Prime Minister Askar Mamin, Kazakhstan "simply does not have such financial means to develop its own AI technologies."[2183] The country is trying to address this problem with the help of foreign investors[2184] and international partners.[2185]

Public Participation

Kazakhstan has yet to develop a systematic process for public consultation in matters of policy. A law on public access to government

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[2180] *The Government AI Readiness Index 2022*,
https://static1.squarespace.com/static/58b2e92c1e5b6c828058484e/t/639b495cc6b59c620c3ecde5/1671121299433/Government_AI_Readiness_2022_FV.pdf
[2181] Radio Free Europe, *The future, "digital Kazakhstan" lacks IT specialists (В будущем «цифровом Казахстане» не хватает IT-специалистов)* (Jul 19, 2017),
https://rus.azattyq.org/a/programma-cifrovoi-kazakhstan-deficit-it-specialistov/28625463.html
[2182] The World Bank, *Research and development expenditure (% of GDP) – Kazakhstan* (2021),
https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS?locations=KZ&view=map
[2183] Forbes Kazakhstan*, Is Kazakhstan ready for a technology race? (Готов ли Казахстан к технологической гонке?)* (May 10, 2020),
https://forbes.kz//process/intellektualnaya_zadacha_1588745463/?
[2184] Caspian Policy Center, *Kazakhstan — The Buckle in the Belt and Road Initiative Seeks Investment and Growth* (Jan. 31, 2020),
https://www.caspianpolicy.org/research/articles/kazakhstan-the-buckle-in-the-belt-and-road-initiative-seeks-investment-and-growth-10915
[2185] EURACTIV, *Kazakhstan seeks high-tech, agricultural cooperation with China, says Tokayev during Beijing Business Council meeting* (Sept. 12, 2019),
https://www.euractiv.com/section/central-asia/news/kazakhstan-seeks-high-tech-agricultural-cooperation-with-china-says-tokayev-during-beijing-business-council-meeting/

information was adopted in 2015, but it is "poorly implemented in practice."[2186]

On transparency, Freedom House states, "The government and legislature offer little transparency on their decision-making processes, budgetary matters, and other operations. The media and civil society do not have a meaningful opportunity to provide independent commentary and input on pending laws and policies.

A 2020 OECD report analyzed the legal and policy framework of more than 200 public councils that gathered civil society in Kazakhstan.[2187] Recommendations included the implementation of clearer guidelines for public consultation, and training, and ensuring a feedback loop of the input from the Councils.

In 2022, the Presidential Decree that establishes the action plan for legal policy included an action to increase public participation in the process of testing candidates for judges (Action N82) and improvement of legal education and legal propaganda (Action N99).[2188]

Presidential and governmental decrees, as well as other legal documents, are published on the official webpage operating under the Ministry of Justice, readily available to the public, and the e-gov page connects to more than 700 government services.

As part of the Digital Kazakhstan National program, the Ministry of Digital Development, Innovations and Aerospace Industry of the Republic of Kazakhstan oversees 740 e-government integrated services. Services are availed to citizens via egov.kz portal, mgov mobile app, and front offices of "Government for Citizens."[2189]

[2186] Freedom House, *Freedom in the World 2022 – Kazakhstan* (2022), https://freedomhouse.org/country/kazakhstan/freedom-world/2022

[2187] OECD, *Transparent and Inclusive Stakeholder Participation through Public Councils in Kazakhstan*, (March 6, 2020). https://www.oecd.org/fr/pays/kazakhstan/transparent-and-inclusive-stakeholder-participation-through-public-councils-in-kazakhstan-d21f1e98-en.htm

[2188] *Decree of the Government of the Republic of Kazakhstan* (April 29, 2022) No. 264 – "On approval of the Action Plan for the implementation of the Concept of the legal policy of the Republic of Kazakhstan until 2030" (Постановление Правительства Республики Казахстан от 29 апреля 2022 года № 264 - Об утверждении Плана действий по реализации Концепции правовой политики Республики Казахстан до 2030 года), https://adilet.zan.kz/rus/docs/P2200000264

[2189] GOV.KZ, *E-government and Public Services,* https://www.gov.kz/memleket/entities/mdai/activities/7?lang=en

Data Protection

The Law of the Republic of Kazakhstan of 21 May 2013 No. 94-V on Personal Data and its Protection (Personal Data Law)[2190] sets the general regulations for data localization, collection and processing of personal data.

In 2019, the country experienced a wave of major data breaches from the databases of the CEC and the Prosecutor General's Office.[2191] Soon after, the personal information of 11 million people was published online and could be accessed by anyone through a published database.[2192] These incidents led to the amendment of the existing data protection law, which was revised to mostly align with the GDPR.[2193]

In 2020, the Law on Amendments and Additions to Some Legislative Acts of the Republic of Kazakhstan on the Regulation of Digital Technologies (Amendment Law) was enacted.[2194] The Amendments entered into force in two phases, first in July 2020,[2195] and then in January 2021.[2196] The amendments established the Ministry of Digital Development, Innovation and Aerospace Industry of Kazakhstan as the competent authority to enforce the data protection law, created rules for the collection and processing of personal data and introduced the concept of "personal data safety protection service," as well as an obligation requires

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[2190] Ministry of Justice of the Republic of Kazakhstan, *Law of the Republic of Kazakhstan dated 21 May, 2013 No. 94-V,* https://adilet.zan.kz/eng/docs/Z1300000094#:~:text=The%20Law%20of%20the%20Republic,94%2DV.&text=This%20Law%20regulates%20the%20public,and%20protection%20of%20personal%20data

[2191] Catalin Cimpanu, *Extensive Hacking Operation Discovered in Kazakhstan,* ZDNet, (Nov. 23, 2019), https://www.zdnet.com/article/extensive-hacking-operation-discovered-in-kazakhstan/

[2192] Kursiv Media, *Attackers have posted data of millions of Kazakhstanis to the network (Злоумышленники выложили в сеть данных миллионов казахстанцев)* (July 4, 2019), https://kursiv.kz/news/obschestvo/2019-07/zloumyshlenniki-vylozhili-v-set-dannye-millionov-kazakhstancev

[2193] The Law of the Republic of Kazakhstan No. 94-V dated May 21, 2013 "On Personal Data and Their Protection" (hereinafter, the "Personal Data Law"), https://adilet.zan.kz/eng/docs/Z1300000094

[2194] Data Guidance, *Kazakhstan- Data Protection Overview,* (July 2021), https://www.dataguidance.com/notes/kazakhstan-data-protection-overview

[2195] Dentons, *Amendments on Personal Data Protection Issues in Kazakhstan* (July 14, 2020), https://www.dentons.com/en/insights/articles/2020/july/14/amendments-on-personal-data-protection-issues-in-kazakhstan

[2196] Dentons, *Kazakhstan strengthens personal data protection by gradually moving toward GDPR standards* (January 28, 2021), https://www.dentons.com/en/insights/alerts/2021/january/28/kazakhstan-strengthens-personal-data-protection-by-gradually-moving-toward-gdpr-standards

that the content and amount of personal data collected strictly correspond to those previously declared and to the legal purposes of their processing.

In 2021-2022, Court practice regarding non-compliance with personal data protection measures began to develop.[2197] While the GDPR requires "the appropriate data protection training to personnel having permanent or regular access to personal data," the Kazakhstan's amendments do not require data protection training. Training is important because human error is one of the major causes of data breaches across the world.

Algorithmic Transparency

Although Kazakhstan's Personal Data Law has been inspired by the GDPR, it does not include the concept of the 'right to not be subject to automated decision-making."[2198] Kazakhstan would have the possibility to ratify the Council of Europe's Modernized Convention for the Protection of individuals with regard to the processing of personal data which provides for the right to algorithmic transparency but has not done so yet.[2199]

AI Regulation

Kazakhstan has started regulating artificial intelligence. On October 15, 2021, the President of Kazakhstan issued Decree No. 674 "On the approval of the Concept of Legal Policy of the Republic of Kazakhstan until 2030." [2200] The Decree addresses the issue of AI accountability. The Decree states, "The need for the legal regulation of artificial intelligence and robotics is determined primarily by the solution of the issue of distribution of responsibility for the harm caused by their actions, as well as the solution

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[2197] Dentons, *Kazakhstan adopts real protections of personal data* (Apr. 13, 2022), https://www.dentons.com/en/insights/articles/2022/april/13/kazakhstan-adopts-real-protections-of-personal-data

[2198] Data Guidance, *Kazakhstan- Data Protection Overview* (Jul 2022), https://www.dataguidance.com/notes/kazakhstan-data-protection-overview

[2199] Council of Europe, *Chart of signatures and ratifications of Treaty 108* (Status as of Nov. 11, 2019), https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/108/signatures?p_auth=UMypWMxn

[2200] Dentons, *Legal regulation of artificial intelligence in Kazakhstan and abroad* (Jun 8, 2022), https://www.dentons.com/en/insights/articles/2022/june/8/legal-regulation-of-artificial-intelligence-in-kazakhstan-and-abroad#:~:text=Kazakhstan%20has%20announced%20the%20need,a%20Legal%20Policy%20until%202030.&text=In%20particular%2C%20it%20has%20identified,caused%20by%20AI%20and%20robots

of the problem of determining the ownership of intellectual property rights to works created with the participation of artificial intelligence".[2201]

On April 29, 2022, the Government of Kazakhstan issued Decree No. 264 On approval of the Action Plan for the implementation of the Concept of the legal policy of the Republic of Kazakhstan until 2030.[2202] In Action N61, ICRIAP, State Enterprise, Ministry of Internal Affairs, and other state bodies, are tasked with the "Development of the concept of 'artificial intelligence', including the procedure, scope and range of its use, status and legal consequences, with the subsequent introduction of a separate offense providing for liability for its use for criminal purposes"[2203] by December of 2025 and 2026.

Action N72 sets government entities with the responsibility to submit proposals for "Codification of the rules of law governing the most important public relations in the field of information and communication technologies, data processing, digital assets, industrial automation, information security, machine learning and artificial intelligence, protection of the rights of personal data subjects" are planned to be finished by the end of 2023.[2204]

Research & Development

In 2020 The World Bank announced a cooperation with Nazarbayev University to create a National Cluster of Artificial Intelligence, including a country-based laboratory, a data processing research center, and a science park for the development of artificial intelligence.[2205] Among other plans was establishing active cooperation in developing common standards, rules, and policies in the field of data exchange and integration. In April of the same year, the Kazakh Ministry of Education and Science, along with the

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[2201] Decree of the President of the Republic of Kazakhstan (Oct. 15, 2021) No. 674 – *"On approval of the Concept of legal policy of the Republic of Kazakhstan until 2030"* (Указ Президента Республики Казахстан от 15 октября 2021 года № 674 - Об утверждении Концепции правовой политики Республики Казахстан до 2030 года), section 4.13, https://adilet.zan.kz/rus/docs/U2100000674#z133

[2202] Decree of the Government of the Republic of Kazakhstan (April 29, 2022) No. 264 – *"On approval of the Action Plan for the implementation of the Concept of the legal policy of the Republic of Kazakhstan until 2030"* (Постановление Правительства Республики Казахстан от 29 апреля 2022 года № 264 - Об утверждении Плана действий по реализации Концепции правовой политики Республики Казахстан до 2030 года), https://adilet.zan.kz/rus/docs/P2200000264

[2203] Ibid., Action N61.

[2204] Ibid., Action N72.

[2205] Primeminister, *EAEU prime ministers participate in Digital Almaty Forum,* (Jan 31, 2020), https://primeminister.kz/en/news/premer-ministry-eaes-prinyali-uchastie-v-forume-digital-almaty1

World Bank, launched the Fostering Productive Innovation Project (FPIP)[2206] to support and develop high-quality scientific research on, and the commercialization of new technologies.

Facial Recognition and Smart Cities

Facial recognition surveillance technology is becoming increasingly widespread in Kazakhstan. While the government insists that the main goal is to maintain public safety, many activists are worried that this will ultimately create a totalitarian surveillance state.[2207] This concern is even more pregnant that the companies behind these surveillance systems in Kazakhstan are under U.S. sanctions for unethical use of AI technology.

In October 2019, facial recognition systems were first installed on buses.[2208] Notably, President Tokayev paid a visit and discussed future cooperation with Hikvision,[2209] a Chinese state-owned surveillance company under U.S. sanctions[2210] that provided the hardware for Kazakhstan's newly established surveillance system. In the same year, the small city of Akkol was proclaimed the first complete "Smart City" in Kazakhstan. Akkol is digitally monitored by an AI-based facial recognition surveillance system. Its functions include thermal imaging, searching for a car by number plates, recognizing missing persons, and detecting the

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[2206] The World Bank, *Kazakhstan: Fostering Productive Innovation Project* (last update date Aug. 8, 2022), https://projects.worldbank.org/en/projects-operations/project-detail/P150402

[2207] Eurasianet, *Kazakhstan embraces facial recognition, civil society recoils* (Oct. 17, 2019), https://eurasianet.org/kazakhstan-embraces-facial-recognition-civil-society-recoils

[2208] Radio Free Europe, *The Four Big Issues Central Asia Faced In 2019 (And They're Not Going Away)* (Jan. 2, 2020), https://www.rferl.org/a/central-asia-2019-challenges-security-china-facial-recognition/30356077.html

[2209] Radio Free Europe, *Does Kazakhstan need Hikvision cameras? (*«Распознает даже людей в масках». Нужны ли Казахстану камеры Hikvision? "It even recognizes people in masks."*),* (Oct. 10, 2019), https://rus.azattyq.org/a/kazakhstan-china-survelliance-camera/30210035.html

[2210] Bloomberg, *U.S. Blacklists Eight Chinese Tech Companies on Rights Violations* (Oct. 7, 2019), https://www.bloomberg.com/news/articles/2019-10-07/u-s-blacklists-eight-chinese-companies-including-hikvision-k1gvpq77

presence of weapons in schools, hospitals, and other public places.[2211] Over 4,000 cameras have blanketed Nur-Sultan, the capital.[2212]

In 2020, the authorities announced that Kazakhstan would be spending $23 million to install facial recognition software in its largest city, Almaty.[2213] In mid-March 2020, Kazakhstan's government was fighting the novel coronavirus. The Ministries of Health and Internal Affairs ultimately turned to AI technological solutions to confront the coronavirus outbreak. The range of technologies reoriented to enforce quarantine and curfews included traffic cameras, facial recognition technologies, and smartphone apps.[2214] The Ministry required the 8,000 or so Kazakhstani citizens under quarantine to use the SmartAstana tracking app, to allow officials monitoring compliance of isolation mandates.

The government also monitored citizens through facial recognition video surveillance technology to find violators of the quarantine regime in Almaty. By the end of the country's two-month state of emergency, 2,424 people had been charged with violating quarantine in Almaty and 3,347 in Nur-Sultan.[2215] According to experts, the pandemic exacerbated the existing arbitrary and uneven policing practices as national and municipal authorities surveillance practices increased without any public oversight.[2216]

In 2022, the country launched a facial recognition system at airports, religious institutions, and underground walkways of Nur-Sultan city.[2217] Reports of arrests of protesters based on facial recognition from surveillance

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[2211] Tengrinews, *Smart Aqkol Video surveillance, security and comfort. How the smartest city of Kazakhstan lives* (Видеонаблюдение, безопасность и комфорт. Как живет самый умный город Казахстана - *Smart Aqkol),* (Dec. 13, 2019), https://tengrinews.kz/article/videonablyudenie-bezopasnost-komfort-jivet-samyiy-umnyiy-1353/

[2212] Informburo, *How the Sergek project works (Как работает проект "Сергек". Репортаж)* (Nov. 19, 2018), https://informburo.kz/stati/kak-rabotaet-proekt-sergek-reportazh-informburokz.html

[2213] Fergana, *Alma-Ata allocated $ 23 million for cameras with face recognition (На камеры с распознаванием лиц в Алма-Ате выделили $23 млн)* (Feb. 8, 2019), http://fergana.agency/news/105020/

[2214] The Diplomat, *Technology and Policing a Pandemic in Central Asia* (May 13, 2020), https://thediplomat.com/2020/05/technology-and-policing-a-pandemic-in-central-asia/

[2215] World Politics Review, *Police States Expand Under the Cover of COVID-19* (July 14, 2020), https://www.worldpoliticsreview.com/articles/28910/across-central-asia-police-states-expand-under-the-cover-of-covid-19

[2216] The Diplomat, *Technology and Policing a Pandemic in Central Asia* (May 13, 2020), https://thediplomat.com/2020/05/technology-and-policing-a-pandemic-in-central-asia/

[2217] *Facial recognition system launched at Kazakhstan's airports, religious institutions* (June 14, 2022), https://www.inform.kz/en/facial-recognition-system-launched-at-kazakhstan-s-airports-religious-institutions_a3944198

cameras and AI-powered recognition technology continued in 2022.[2218] Kazakhstan and China have strengthened their cooperation in AI, big data, cloud computing, and other high-tech sectors.[2219]

Biometrics

Kazakhstan implemented the use of biometrics in the eGov Mobile app in 2022.[2220] The system requires a Digital ID video identification. The Chairman of the Board of National Information Technology highlighted this development as an "easier and time-efficient [process] that provides more reliable personal data protection." The authentication via biometrics applies for 400 public services and e-license services, across over 2.4M citizens, using the airport, train services, banking, mobile services, postal service, and notary public.

Lethal Autonomous Weapons

In October 2022, Kazakhstan was one of 70 states that endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an international framework of rules and constraints.[2221] In this joint statement, States declared that they "are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[2222]

In February 2023, Kazakhstan participated in an international summit on the responsible application of artificial intelligence in the

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[2218] *Kazakhstan: Mass Arrests and Surveillance—With Some Help from China,* (Jan. 1, 2022), https://bitterwinter.org/kazakhstan-mass-arrests-and-surveillance/

[2219] The State Council of the People's Republic of China, *China, Central Asian countries vow to build community with shared future,* (Jan. 27, 2022), http://english.www.gov.cn/news/topnews/202201/27/content_WS61f1f7c6c6d09c94e48a457c.html

[2220] eGov, *Access to eGov Mobile app available through the biometrics* (Jul. 20, 2022), https://egov.kz/cms/en/news/egov_biometrics

[2221] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly* (2022) https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

[2222] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77ᵗʰ United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

military domain hosted by the Netherlands. At the end of the Summit, Kazakhstan, together with other countries, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[2223] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[2224]

Human Rights

According to Freedom House, Kazakhstan is not a "Free" country and rates (23/200) for political rights and civil liberties.[2225] Freedom House reports "Parliamentary and presidential elections are neither free nor fair, and major parties exhibit continued political loyalty to the government. The authorities have consistently marginalized or imprisoned genuine opposition figures. The dominant media outlets are either in state hands or owned by government-friendly businessmen. Freedoms of speech and assembly remain restricted, and corruption is endemic."

Kazakhstan is eligible for admission to the Council of Europe. In recent years, Kazakhstan has increased cooperation with the Council of Europe. A previous agreement was limited to criminal justice. The Neighborhood Co-operation Priorities for Kazakhstan 2019-2022 introduces new areas of cooperation, including the fight against economic

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[2223] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action
[2224] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action
[2225] Freedom House, *Freedom in the World 2022 – Kazakhstan* (2022), https://freedomhouse.org/country/kazakhstan/freedom-world/2022

crime, promoting a common legal space and human rights standards, and assistance in the electoral field. The document was adopted by the Committee of Ministers in April 2019. Kazakhstan participates in the Central Asia Rule of Law Programme, launched in 2020, which has the goal of "[i]mproving the lives of citizens by reinforcing human rights, democracy and rule of law."[2226] Corruption in Kazakhstan remains a serious concern, entrenched in different sectors, institutions, and public and private spheres.[2227]

OECD / G20 AI Principles

Kazakhstan has not endorsed the OECD AI Principles. According to the OECD AI Observatory, the Digital Kazakhstan Government Program, a national initiative, addressed some of the OECD AI principles of inclusive growth, sustainable development, well-being, investment in AI R&D and fostering an ecosystem for AI.[2228]
The country's major AI research center, the Institute of Smart Systems and Artificial Intelligence at Nazarbayev University,[2229] operates in accordance with the following ethical principles: Societal Well-being, Human Centered Values, Transparency, Technical Resilience and Robustness, and Accountability

UNESCO Recommendation on the Ethics of Artificial Intelligence

Kazakhstan is a UNESCO member since 1992[2230] and endorsed the UNESCO Recommendation on the Ethics of AI.[2231]

[2226] Council of Europe / European Union, *Central Asia Rule of Law Programme,* https://pjp-eu.coe.int/en/web/central-asia

[2227] The Group of States against Corruption (GRECO), the Council of Europe, *Joint First and Second Evaluation Rounds - Evaluation Report on Kazakhstan* (March 25, 2022), https://rm.coe.int/joint-first-and-second-evaluation-rounds-evaluation-report-on-kazakhst/1680a6e276

[2228] OECD AI Policy Observatory, *"Digital Kazakhstan Government Programme"* (Sept. 9, 2022), https://oecd.ai/en/dashboards/countries/Kazakhstan

[2229] ISSAI, Nazarbayev University, Institute of Smart Systems and Artificial Intelligence, https://issai.nu.edu.kz/about/

[2230] The Astana Times, *Kazakhstan marks 30ᵗʰ anniversary of membership in UNESCO,* (June 22, 2022), https://astanatimes.com/2022/06/kazakhstan-marks-30th-anniversary-of-membership-in-unesco/#:~:text=NUR%2DSULTAN%20%E2%80%93%20This%20year%2C,joined%20on%20May%2022%2C1992.

[2231] UNESCO, *UNESCO Member States Adopt the First Ever Global Agreement on the Ethics of Artificial Intelligence* (Apr. 21, 2022) https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence

Kazakhstan contributed actively to the drafting of the UNESCO Recommendation. A country delegation from the Institute of Smart Systems and Artificial Intelligence of Nazarbayev University (ISSAI) participated in the UNESCO Session on the Ethics of Artificial Intelligence held online on July 23-24, 2020. The event gathered feedback and stakeholder contributions for the review of, and comment on the draft recommendation. The ISSAI delegation submitted the ISSAI Ethical Principles document as a sample of organizational AI Ethics statements. The Kazakhstani delegation offered observations on the UNESCO draft document with regard to explainability, accountability and responsibility of AI systems, and the need to respect human rights and human dignity.[2232] Kazakhstan has yet to take concrete steps to implement the UNESCO Recommendation on AI Ethics.

Evaluation

Kazakhstan has acknowledged its limits in embracing the AI revolution and has yet to develop a national AI policy. However it has already endorsed smart surveillance systems in various cities that have led to fears that the country would transform into a digital authoritarian regime and a real life-laboratory for foreign companies under US sanctions for unethical use of AI technology. The Personal Data Protection Law has not addressed the areas of automated decision-making and algorithmic transparency. The Presidential Decree of 2021 is a positive step into the definition and regulation of artificial intelligence, with a special mention to the matter of accountability. The government has yet to ensure that civil society participates systematically in policy-making. Kazakhstan's endorsement of the UNESCO Recommendation on AI Ethics and its active participation in the drafting of the Recommendation sets a commitment to taking specific steps for implementation.

[2232] ISSAI, *UNESCO Hosts Session on the Ethics of Artificial Intelligence – ISSAI delegation represents on behalf of Kazakhstan* (Jul. 25, 2020), https://issai.nu.edu.kz/2020/08/10/unesco-hosts-session-on-the-ethics-of-artificial-intelligence/

Kenya

National AI Strategy

Although Kenya does not have a national AI strategy, the country is a front-runner in the transition to a digital economy and has taken concrete steps to formulate plans, blueprints, and strategies that position the country to create a national AI Strategy.

In February 2018, the government of Kenya empaneled a Blockchain and AI taskforce with the mandate to provide recommendations on harnessing these emerging technologies.[2233] Notably, the taskforce explored the use of AI in public service delivery, financial inclusion, cyber-security, and election processes. In July 2019, the taskforce published its report identifying three main axes for AI development and application:[2234]

(1) The need to leverage Blockchain and AI in the fight against corruption.

(2) The critical role of AI in the financial sector.

(3) The application of AI to "bolster election fairness through fast tallying and providing real-time polling results, and by extension, strengthen democracy".[2235]

The taskforce concluded that effective regulation of these technologies would allow to address both citizen protection and private sector innovation.[2236] The taskforce recommendations are yet to translate into public policy, legislation, or strategy on AI.[2237]

In May 2019, the Ministry of Information, Communications and Technology (MoICT) and the Youth Affairs and the National Communications Secretariat (NCS) released the Kenya's Digital Economy Blueprint.[2238] The Blueprint followed the steps of the Digital Economy Blueprint for Africa. The release took place during the Transform Africa

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[2233] Judy Kabubu. *Official Intelligence in Kenya,* (Jan 26, 2021) https://mman.co.ke/content/artificial-intelligence-ai-kenya

[2234] Kenn Abuya*, Kenya Blockchain Taskforce Findings Rally for Use Cases in Poll Transparency,* Teckweez (Jul 26, 2019), https://techweez.com/2019/07/26/blockchain-taskforce-report/

[2235] Ibid

[2236] D Mpala, *Kenyan taskforce calls for state to regulate AI and Blockchain*, (Aug 2019) https://ventureburn.com/2019/08/kenya-report-blockchain-ai/

[2237] Judy Kabubu, *Official Intelligence in Kenya,* (Jan 26, 2021), https://mman.co.ke/content/artificial-intelligence-ai-kenya

[2238] Ministry of ICT, Innovation and Youth Affairs. *Kenya Digital Economy Blueprint* 2019, p. 96. https://www.ict.go.ke/wp-content/uploads/2019/05/Kenya-Digital-Economy-2019.pdf

Summit[2239]. The Blueprint set outcomes, and identifies opportunities and areas for further focus in the Kenyan digital economy ecosystem, including plans of action for the government, private sector, and citizens. The Blueprint identifies six pillars of the digital economy in Kenya: Digital Government, Digital Business, Infrastructure, Innovation-Driven Entrepreneurship and Digital Skills, Values and Digital Inclusion.[2240]

Kenya also adopted the Digital Economy Strategy 2020.[2241] The strategy prioritized digital infrastructure for AI (e.g. cloud resources, computing power), business innovation and innovative entrepreneurship, education, and skills, technology transfers, and commercialization. These address the following OECD AI principles; (1) Inclusive growth, (2) sustainable development and well-being, (3) Transparency and Explainability, (4) accountability, (5) investing in AI R&D, (6) fostering a digital ecosystem for AI, and (7) providing an enabling policy environment for AI.

In April 2022, the Government of Kenya, through the MoICT issued a new digital Blueprint: Kenya Digital Master Plan (DMP) 2022-2032.[2242] This new Blueprint builds on the conceptualization of the 2014-2017 Master Plans of, the 2013Master Plan, the 2004 e-Government Strategy, and the 2005 ICT Policy.[2243] The new Blueprint, identified 20 flagship programs and the specific actors tasked with their implementation, four pillars, and an overarching policy, legal and regulatory framework:

(1) Digital infrastructure. (8 flagship programs)

(2) Digital government, services, products, and data management (5 flagship programs)

(3) Digital skills (4 flagship programs)

[2239] Communications Authority of Kenya, *Kenya Launches Digital Economy Blueprint*, Communications Authority of Kenya, 2019, https://www.ca.go.ke/kenya-launches-digital-economy-blueprint

[2240] OECD.AI. *Kenya's Digital Economy Blueprint.* 2019 https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27137

[2241] Ministry of Information, Communication, TechnologyICT, Innovation and Youth Affairs, *Digital Economy Strategy 2020*, 2020. (Jul 10, 2020). https://ict.go.ke/wp-content/uploads/2020/08/10TH-JULY-FINAL-COPY-DIGITAL-ECONOMY-STRATEGY-DRAFT-ONE.pdf .

[2242] U.S. International Trade Administration, *Kenya launches new ten-year digital masterplan* (Jun 13, 2022), https://www.trade.gov/market-intelligence/kenya-launches-new-ten-year-digital-masterplan

[2243] Ministry of ICT, Innovation and Youth Affairs. *The Kenya National Digital Master Plan 2022-2032* (Apr, 2022), https://repository.kippra.or.ke/bitstream/handle/123456789/3580/Kenya%20-%20Digital%20Master%20Plan.pdf?sequence=1&isAllowed=y

(4) Digital enterprise, innovation and businesses (3 flagship programs)

Overarching the pillars, is the Policy, Legal and Regulatory Framework: Harmonization/enactment of policies and government regulation to mobilize funds.

Notable in the Master Plan 2022-2032 is the integration of the recommendations of the Smart Africa Alliance, in relation to the "long-term outcomes of digital governance that include: "fairness", "equity", "transparency", "trust" and "accountability."[2244]

With the support of various organizations, such as the German Federal Ministry for Economic Cooperation and Development (BMZ), the European Union (EU) and the Digital Centre (DZ), Kenya is undertaking a "transformation towards a sustainable and human-centered digital economy and Society."[2245]

In March 2022, the government of Kenya developed a National Cyber Security Strategy[2246] for a unified approach to the implementation of cyber security activities in the country. The strategy establishes foundations and pillars for effective cyber security for the public and private sectors by combining good governance with a set of initiatives and interventions. Spearheaded by the Ministry of ICT, Innovation and Youth Affairs and the Ministry of Interior and Co-ordination of National Government, the strategy further provides a framework to defend and protect the cyberspace of the Republic of Kenya.

As a member of the African Union (AU), Kenya is committed to advancing the formulation and implementation of human-centered AI policies, in alignment with the goals of the AU digital transformation strategy[2247] and the Continental Data Policy Framework.[2248] The AU AI Working Group is endowed with the mission to foster collaboration among African states in order to "help countries develop AI strategies, identify

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[2244] Ministry of ICT, Innovation and Youth Affairs. *The Kenya National Digital Master Plan. 2022-2032* (Apr, 2022), p.30, https://repository.kippra.or.ke/bitstream/handle/123456789/3580/Kenya%20-%20Digital%20Master%20Plan.pdf?sequence=1&isAllowed=y

[2245] Digital Global, *Digital Transformation Center Kenya,* GIZ (2023) https://www.bmz-digital.global/en/initiatives/digital-transformation-center-kenya/

[2246] Ministry of ICT, Innovation and Youth Affairs. *National Cybersecurity Strategy* (2022) https://ict.go.ke/wp-content/uploads/2022/10/KENYA-CYBERSECURITY-STRATEGY-2022.pdf

[2247] African Union, *The Digital Transformation Strategy for Africa (2020-2030),* https://au.int/sites/default/files/documents/38507-doc-dts-english.pdf

[2248] African Union, *40th Ordinary Session of the Executive Council* (Feb 2-3, 2022), https://au.int/sites/default/files/decisions/41584-EX_CL_Dec_1143-1167_XL_E.pdf

other regulatory and governance issues, and learn from regional best practices."[2249]

Research & Development

Over the last decade, Kenya's total value of the investment in AI reached Sh13 billion (US$120 million).[2250] Kenya's journey in digital transformation dates back to 2013[2251] when the ministry of Information, Communication and Technology (ICT) introduced the Kenya's Digital Literacy Programme (Digischool). DigiSchool aimed at introducing primary school children in public schools to the use of digital technology and communications. The program faced challenges that have slowed down the implementation: lack of adequate funding, lack of electricity in certain parts of the country, shortage of teachers with relevant and adequate digital literacy skills, lack of storage for gadgets among others.[2252] According to the OECD.AI observatory, the Digischool initiative would address goals of inclusive growth, sustainable development, and well-being, building human capacity, and preparing for labor market transition.[2253]

The government of Kenya has funded research in AI-applications. In November 2021 the Kenya Space Agency[2254] awarded research grants of Kshs 500,000 ($5000) each to 5 public universities (University of Nairobi, Jomo Kenyatta University of Agriculture and Technology, Dedan Kimathi University of Technology, Egerton University and Taita Taveta University to develop AI/ML applications for agriculture. The researchers aimed to use

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[2249] F Ngila Kenya, *Africa Hurdles in Artificial Intelligence Race, Business Daily* (Jan 7, 2021), https://www.businessdailyafrica.com/bd/corporate/technology/kenya-africa-hurdles-in-artificial-intelligence-race-3249180

[2250] Faustine Ngila, *Kenya, Africa Hurdles in Artificial Intelligence Race Business Daily* (Jan 7, 2021), https://www.businessdailyafrica.com/bd/corporate/technology/kenya-africa-hurdles-in-artificial-intelligence-race-3249180

[2251] OECD.AI Policy Observatory, *AI in Kenya, Kenya's Digital Literacy Programme (Digischool)* (Aug. 11, 2021), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27139

[2252] Kenya Institute of Curriculum Development, *Government Says Digital Learning A Big Success* (2023), https://kicd.ac.ke/in_the_press/climate-change-to-be-included-in-new-education-curriculum/ also The Star, *What Failure? Government Says Digital Learning A Big Success* (Mar 7, 2022), https://www.the-star.co.ke/news/2022-03-07-what-failure-government-says-digital-learning-a-big-sucess/

[2253] OECD.AI, *Kenya Digital Literacy Programme (DigiSchool)* (Aug 11, 2021), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27139

[2254] Kenya Space Agency, *Small Scale Crop Mapping Using Artificial Intelligence (AI)/Machine Learning (ML)* (2021), https://www.ksa.go.ke/news/small-scale-crop-mapping-ai-ml/

Google Earth Engine,Artificial Intelligence (AI) and Machine Learning (ML) algorithms together with satellite data to map small scale crops and improve food production, especially for small holder farms.

In 2022, the government of Kenya embarked on developing the Konza Technopolis Smart City, allocating $73M. This initiative seeks to enhance Kenya's innovation ecosystem and digital economy by providing infrastructure and technological link.[2255] This initiative addresses OECD AI principles: inclusive growth, sustainable development, and well-being; robustness, security, and safety; investment in AI and research and development; fostering a digital ecosystem for AI and providing an enabling policy environment for AI.[2256]

Other use cases for AI in Kenya include the 'Emerging digital technologies for Kenya- Exploration and Analysis", led by the Ministry of ICT, Innovation and Youth Affairs[2257]. The goal of the study is examine how to leverage Blockchain and AI to promote sustainable development in different sectors. Use cases of AI in electoral processes to ensure safer and more democratic elections and in the environmental sector to promote food and nutrition security among others. This initiative addresses the following OECD AI principles:[2258] inclusive growth, sustainable development, and well-being; transparency and explainability; robustness, security, and safety; accountability; investment in AI and research and development; fostering a digital ecosystem for AI; providing an enabling policy environment for AI; and building human capacity and preparing for labor market transition.

Kenya, in cooperation with UNESCO, hosted workshops on AI and Fairness at the Deep Learning Indaba 2019 annual gathering at Kenyatta University.[2259] The workshops connected researchers and students in the exchange of ideas intersecting law, gender, AI, ICTs, and community

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[2255] The National Treasury, *2022/2023 Estimates of Development Expenditure of the Government of Kenya for the Year Ending 30th June, 2023,* *https://www.treasury.go.ke/wp-content/uploads/2022/04/FY-2022-23-Development-Book-1092-2111.pdf*

[2256] OECD.AI Policy Observatory*, AI in Kenya, AI Use Cases in the Public Sector* (Sept. 9, 2022), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27140

[2257] OECD.AI Policy Observatory, *Emerging digital technologies for Kenya. Exploration and Analysis* (Sept. 9, 2022), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27135

[2258] Ibid.

[2259] United Nations, *E-government Survey 2022. The future of Digital Government* (2022), https://desapublications.un.org/sites/default/files/publications/2022-09/Web%20version%20E-Government%202022.pdf

development. Kenya's Digital Terrestrial Television Infrastructure, was the highlight of the UN E-government report of 2022, as an example of the use of technologies and development of policies that support and advance the SDGs, through attention to underserved populations.

Public Participation

Kenya has made strides in establishing a systematic process to engage stakeholders in meaningful participation in policy-making. Kenya has a systematic process to receive input in policy-making through the Public Consultation portal of the Communications Authority of Kenya (CA).[2260] In the most recent consultation, the CA invited comments from all stakeholders for the development of the Framework for a Regulatory Sandbox.[2261] The Regulatory Sandbox aims to nurture and support innovation by exploring the application of innovative regulatory solutions.[2262]

A previous stakeholders consultation took place in 2018, during the development of Kenya's Blockchain and AI Taskforce report. The taskforce received 150 presentations and consulted with approximately 90 stakeholders.[2263] The composition of the taskforce was inclusive and diverse, with four women in the pool of 14 experts drawn from academia, research institutions, tech entrepreneurs, consultants and private businesses, such as Safaricom, Cisco, IBM Research Africa, the African Development Bank. The Lead of the Taskforce was the academic and former ICT Permanent Secretary, Bitange Ndemo.[2264] The consultation also included approximately 31 AI startups operating in various sectors of the Kenyan economy including agriculture, finance, accounting, health, communications, education, business development, and law.

[2260] Communications Authority of Kenya, *Public Consultation,* *https://www.ca.go.ke/?taxonomy=consultation&s=&document_category=consultation* x

[2261] Communications Authority of Kenya, *Public Consultation Framework for Emerging Technologies Regulatory Sandbox* (Jan 2023), https://www.ca.go.ke/document/framework-for-emerging-technologies-regulatory-sandbox-january-2023/

[2262] Communications Authority of Kenya, *Framework for Emerging Technologies Regulatory Sandbox* (Jan 2023), https://www.ca.go.ke/wp-content/uploads/2023/01/Framework-for-Emerging-Technologies-Regulatory-Sandbox-January-2023.docx.pdf

[2263] Carolyne Tanui, *The Kenya Blockchain Taskforce Concludes Its Report, Wall Street* (Nov. 20, 2018), https://kenyanwallstreet.com/the-kenya-blockchain-taskforce-concludes-report-on-blockchain-technology/.

[2264] Daniel Mpala, *Kenyan Taskforce Calls for State to Regulate AI and Blockchain* (Aug 2, 2019), https://ventureburn.com/2019/08/kenya-report-blockchain-ai/

In April 2019, the Artificial Intelligence for Development Africa[2265] held the regional conference "Toward a Network of Excellence in Artificial Intelligence for Development (AI4D) in sub-Saharan Africa." The event hosted in Nairobi, Kenya was attended by 60 African and international experts, to promote the African conversation on AI, primarily on policy and regulations; skills and capacity building; and the application of AI. The Delegates to the conference had several aspirations:[2266]

> (1) achieve that 30 African countries develop AI specific policies and strategies by 2024;
> (2) create a pipeline of 400 African PhDs in AI, data science, and other interdisciplinary fields,
> (3) create a collective investment of US\$ 1 billion dollars in collaborative innovation and research prioritizing solution areas for sustainable development in Africa;
> (4) establish an AI Centre of Excellence in each African country by 2030; and
> (5) invest in capacity building in AI policy and regulatory frameworks that are relevant for the African context.[2267]

In the most recent UN e-Government Survey of 2022, Kenya ranked 36th out of 193 countries in the world in e-participation, and among the top 15 African countries, in terms of e-Government development index (EGDI).[2268] The UNESCO Internet Universality National Assessments of 2018 evaluated member states in their adherence to the R.O.A.M. X principles and their contribution to sustainability.[2269] R.O.A.M. refers to Rights, Openness, Accessibility, and Multi-stakeholder participation. The assessment concerning Kenya confirmed its robust internet environment aligned with international best practices and its sustained growth in access to ICTs. The report included recommendations for academia to research the impact of AI to inform policy-making.

[2265] Artificial Intelligence for Development Africa, *About Us* (2022), https://africa.ai4d.ai/

[2266] Artificial Intelligence for Development Africa, *A Roadmap for Artificial Intelligence for Development in Africa* (May 8, 2019), https://africa.ai4d.ai/blog-africa-roadmap/

[2267] Tracxn. *Artificial Intelligence Startups in Kenya* (Oct 24, 2022), https://tracxn.com/explore/Artificial-Intelligence-Startups-in-Kenya

[2268] United Nations, *E-government Survey 2022, The future of Digital Government,* https://desapublications.un.org/sites/default/files/publications/2022-09/Web%20version%20E-Government%202022.pdf

[2269] UNESCO, *Internet Universality Indicators- National Assessments, Kenya,* https://unesdoc.unesco.org/ark:/48223/pf0000374684

Kenya participated in a consultative workshop organized by the African Union High-Level Panel on Emerging Technologies (APET) in May 2022.[2270] The discussions at APET aimed at demystifying the concept of AI and gathering input about "myths, challenges, and benefits of Artificial Intelligence (AI) in Africa", urging the African countries to invest in AI literacy, cooperate internationally for AI innovation, enhance data protection, invest in infrastructure, and review policy implementation frameworks governing AI.

Data Protection

In November 2019, Kenya enacted the Data Protection Act (DPA),[2271] establishing protections for personal data and reaffirming the right to Privacy.[2272] The DPA seeks to give effect to Article 31(c) and (d) of the Constitution that contains the right to privacy; regulate the processing of personal data; provide for data subjects' rights; and create obligations for data 'controllers' and 'processors." Applicability to AI can be inferred where personal data is involved in AI-based transactions.[2273]

The DPA contains principles of data protection that relate to the fair, transparent processing of personal data (Section 25), the right to erasure, and right to rectification, and rights related to automated decision-making (Section 35).[2274]

Pursuant to the DPA, the Office of the Data Protection Commissioner (ODPC) was established in 2020. In 2022, the ODPC became a member of the Global Privacy Assembly (GPA).[2275] The Global Privacy Assembly seeks to provide leadership in data protection and privacy by connecting the efforts of more than 130 data protection authorities across

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[2270] AUDA-NEPAD, *The African Union Artificial Intelligence Continental Strategy for Africa* (May 30, 2022), https://www.nepad.org/news/african-union-artificial-intelligence-continental-strategy-africa

[2271] Office of the Data Protection Commissioner, *Data Protection Act, Section 35* (Feb. 2021), https://www.odpc.go.ke/dpa-act/

[2272] Freedom House, *Freedom in the World 2022,*
https://freedomhouse.org/country/kenya/freedom-world/2022

[2273] Jake Okechukwu Effoduh, 7 Ways That African States Are Legitimizing Artificial Intelligence, *OpenAIR* (Oct. 2020), https://www.wathi.org/7-ways-that-african-states-are-legitimizing-artificial-intelligence-openair-africa-october-2020

[2274] Office of the Data Protection Commissioner, *Data Protection Act, Section 35* (Feb. 2021), https://www.odpc.go.ke/dpa-act/

[2275] Global Privacy Assembly, *44th Closed Session of the Global Privcacy Assembly* (Oct. 27, 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/1.1.-b.-GPA-2022-Accreditation-Resolution.pdf

the globe.[2276] The ODPC has not endorsed the 2018 GPA Declaration on Ethics and Data Protection, [2277] the GPA 2020 Resolution on Accountability in the Development and Use of AI[2278] and the GPA 2022 Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology.[2279]

Throughout 2021 and 2022, the Kenyan legislative Assembly enacted regulations providing for additional safeguards to privacy and fostering a robust digital economy. The Data Protection (Registration of Data Controllers and Data Processors) Regulations, 2021[2280] to curb unethical debt collection practices and abuse of personal data and the Central Bank of Kenya (Digital Credit Providers) Regulations, 2022.[2281]

Although the African Union developed the AU Convention on Cyber Security and Personal Data Protection (Malabo Convention),[2282] Kenya has not signed or ratified the Convention.[2283] Calls to the government

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[2276] Office of the Data Protection Commission, *Kenya Joins Global Privacy Assembly, Twitter* (2022), https://twitter.com/ODPC_KE/status/1585618661749964800

[2277] International Conference of Data Protection & Privacy Commissioners, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[2278] Global Privacy Assembly (GPA), *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[2279] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition technology* (Oct 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[2280] Communications Authority of Kenya, *Data Protection (Registration of Data Controllers and Data Processors) Regulations* (2023), https://www.ca.go.ke/document/data-protection-registration-of-data-controllers-and-data-processor-regulation/

[2281] The Central Bank of Kenya, *Central Bank of Kenya (Digital Credit Providers) Regulations 2022* (March 21, 2022), https://www.centralbank.go.ke/2022/03/21/central-bank-of-kenya-digital-credit-providers-regulations-2022

[2282] African Union, *African Union Convention on Cybersecurity (Malabo Convention)* (Jun. 27, 2014), https://au.int/en/treaties/african-union-convention-cyber-security-and-personal-data-protection

[2283] African Union, *List of Countries which have signed, ratified/acceded to the African Union Convention on Cyber Security and Personal Data Protection* (Mar. 25, 2022), https://au.int/sites/default/files/treaties/29560-sl-AFRICAN_UNION_CONVENTION_ON_CYBER_SECURITY_AND_PERSONAL_DATA_PROTECTION.pdf

of Kenya to sign and ratify the Malabo Convention re-emerged, amid the concerns surrounding data localization requirements and cross-border data transfer, that would require reciprocity with Malabo signatories. Signing the convention would signal Kenya's commitment to the intra-African partnership and regional cooperation.[2284]

Algorithmic Transparency

Section 22 of the DPA provides for algorithmic transparency. A data controller or data processor shall not only "inform a data subject when engaging in processing based on automated individual decision making" but also "provide meaningful information about the logic involved."[2285]

Kenya was one of 49 countries subject of a study by Human Rights Watch about the use of government-endorsed or government-built Ed Tech tools for online learning during the COVID-19 pandemic.[2286] The findings show that Kenya Education Cloud, a platform used by the Ministry of Education to deliver online education to primary and secondary students, shared children's data with AdTech companies. The platform designed for children contained ad trackers that sent data about users to third-party companies (Google) as 'remarketing audiences' to target ads across the internet.[2287] The platform did not have any publicly available privacy notice that would give children the right to object to being surveilled. The platform "denied the knowledge or opportunity to challenge these practices."[2288] Human Rights Watch exhorted UN the Human Rights Commission to address questions with the government of Kenya in regard to children's rights challenged through this practice. Given the increasing matter of algorithmic discrimination, which the DPA does not address directly, there

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[2284] Malcom Kijirah & Elaine Wangari, *Symposium on the economic impacts of data localization in Africa:* African International Economic Law Network. *Afronomics Law* (May 23, 2022), https://www.afronomicslaw.org/category/analysis/symposium-economic-impacts-data-localisation-africa-data-localisation-kenya#:~:text=Kenya%20should%20also%20sign%20and,enhance%20cooperation%20in%20the%20continent.

[2285] *Data Protection Act*, https://www.odpc.go.ke/download/kenya-gazette-data-protection-act-2019/#

[2286] Human Rights Watch, *How Dare They Peep into My Private Life?* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[2287] Human Rights Watch. *Kenya Education Cloud. Privacy Snapshot,* https://features.hrw.org/features/StudentsNotProducts/files/privacy_snapshots/Privacy%20Snapshot%20-%20Kenya%20Kenya%20Education%20Cloud.pdf

[2288] Human Rights Watch, *Kenya: Submission to the UN Committee on Economic, Social and Cultural Rights* (Jan. 17, 2023), https://www.hrw.org/news/2023/01/17/kenya-submission-un-committee-economic-social-and-cultural-rights

is a need for a comprehensive non-discrimination statute that addresses these risks.[2289] The Kenya Ministry of Education planned to implement automated decision-making in admission decisions. In response to the public outcry, the Ministry explained the factors underlying the model, including the reliance on criteria of merit, equity, choice, category of school, and school capacity. Reports about the outcomes of the model are forthcoming.[2290] A previous process of quotas in the Form One selection in Kenya led to complaints by parents who argued discrimination in 2012.[2291]

Biometrics

In 2015 the government started an upgrade of the medical records system, in a bid to stop health insurance fraud in Kenya's Hospital Insurance Fund (NHIF). The NHIF has 6.7M members, serving a population of 48M. The government started the biometric registration of civil servants and security officers to migrate the system to smart cards.[2292] In 2018, the government deployed biometric kits to 1,370 hospitals.

In 2018, the biometric plan included the registration of students into a health insurance plan nationwide and the registration of newborns.[2293] The infant biometrics plan emerged from the need of the country to ensure that kids of HIV-affected mothers, returned to the hospitals for treatment. UC San Diego conducted fundamental research on fingerprinting engineering.

Kenya biometric ID system Huduma Namba went live in 2019 in the midst of allegations of insufficient protections for privacy rights and challenges by digital rights groups. The Bill since then has remained in Parliament. The Cabinet Secretary for ICT, the sponsor of the Bill, asserted

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[2289] CEGA, *Manipulation-proof credit scoring algorithms in Kenya* (2023), https://cega.berkeley.edu/research/building-better-credit-scoring-algorithms/

[2290] Frankline Nkonge, *Legal Challenges facing algorithmic decision-making in Kenya* (Oct 2021), https://www.researchgate.net/publication/355169613_LEGAL_CHALLENGES_FACING_ALGORITHMIC_DECISION-MAKING_IN_KENYA

[2291] Jayne Ngari, *Parents cite bias in Form One Selection* (Jan 18, 2012), https://nation.africa/kenya/news/parents-cite-bias-in-form-one-selection--796806

[2292] Chris Burt, *Kenya progressing toward biometric deployment in all hospitals to curb health insurance fraud* (Sept. 11, 2018), https://www.biometricupdate.com/201809/kenya-progressing-toward-biometric-deployment-in-all-hospitals-to-curb-health-insurance-fraud

[2293] Chris Burt, *Potential breakthrough in infant biometrics heads for trial in Kenya after ID4Africa appeal* (Jun. 28, 2018), https://www.biometricupdate.com/201806/potential-breakthrough-in-infant-biometrics-heads-for-trial-in-kenya-after-id4africa-appeal

that the project "ran into trouble because of inadequate sensitization and a lack of trust in the system by a vast majority of citizens.' [2294]

Kenya is set to revamp the ID scheme as part of the digitization efforts of the country. The Cabinet Secretary for Information, Communication, and Digital Economy announced the plans to to replace the controversial Huduma Namba by a new digital identity in February 2024.[2295] The online identification will have a centralized database, that will connect with the National Information Management system. The system will contain a comprehensive set of data held by the government on Kenyans, to facilitate access to public services, and also to be linked to the birth-to-death Unique Personal Identifier (UPI).[2296] The plans include the assignment of a number to the newborn that will remain as the identifier at school and as the National Identity number, social security number, and death certificate number.

Most recently, the Cabinet Secretary of the Ministry of Interior and National Administration also announced the issuance of biometric passports, which were launched in 2022.[2297] Citizenship and Residency documents with advanced features of third-generation security will be part of this innovation to the immigration process.

Facial Recognition

In 2018 the Kenyan National Police Service (NPS) launched facial recognition on major roads and highways, through an urban CCTV network.[2298] This system called Integrated Command and Control system (ICCS) relied on CCTV cameras to do Automatic Number Plate

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[2294] Ayang Macdonald, *Kenya mulls digital ID scheme changes and new uses for controversial Huduma Namba* (Jan. 16, 2023), https://www.biometricupdate.com/202301/kenya-mulls-digital-id-scheme-changes-and-new-uses-for-controversial-huduma-namba#:~:text=The%20Huduma%20Namba%20biometric%20ID,been%20stuck%20in%20Kenya's%20parliament.

[2295] Chris Burt, *Kenyan government seeks to differentiate new national digital ID from Huduma Namba.* Biometric Update (Feb 24, 2023), https://www.biometricupdate.com/202302/kenyan-government-seeks-to-differentiate-new-national-digital-id-from-huduma-namba

[2296] Ayang Macdonald, *Kenya to clear backlog of biometric passports, new 'smart and digital ID' system coming.* Biometric Update (Feb 6, 2023), https://www.biometricupdate.com/202302/kenya-to-clear-backlog-of-biometric-passports-new-smart-and-digital-id-system-coming

[2297] Ibid.

[2298] Chris Burt, *Kenyan police launch facial recognition on urban CCTV network.* Biometric Update (Sep 24, 2018), https://www.biometricupdate.com/201809/kenyan-police-launch-facial-recognition-on-urban-cctv-network

Recognition (ANPR) to detect vehicles involved in crimes as part of the Critical Incident Management suite (CIMS).

The NPS partnered with a Japanese firm to install an upgrade of the ICCS, to "help in a fast and accurate identification of suspects through NEC's NeoFace."[2299] The new ICCS system will use thousands of cameras to "scan the street, instantly analyzing the faces of everyone on sight" and match the photographs fed into the system and analyzed via an algorithm that will raise an alert.[2300] The NPS Plans include using the Neo Face as an alternative when law enforcement cannot identify a suspect using fingerprints.

Human Rights

According to Freedom House, Kenya is "Partly Free" with a score of 48/100 for political rights and civil liberties.[2301] The country's media and civil society sectors are vibrant, even as journalists and human rights defenders remain vulnerable to restrictive laws and intimidation. Concerns exist about the government's interference with the right to privacy of individuals and the frequent use of cybercrime laws to crack down on online critics of the government. The Ibrahim Index of African Governance in 2021 scores Kenya at 58.7/100 for overall governance, and 55.3/100 in Participation Rights & Inclusion, placing the country in position 13 out of 45 African countries.[2302]

Kenya's Constitution contains the Bill of Rights under Chapter 4, with a catalog of fundamental civil and political rights, and socio-economic and cultural rights. These rights include Freedom and security of the person, right to Privacy, Freedom of expression, Freedom of the media, right to access to information, and right to dignity.[2303] Kenya's Human Rights Commission has an oversight mandate on human rights protection and promotion.

Kenya is a signatory to various regional and international human rights treaties and conventions including the African Charter on Human and

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[2299] Paul Wanjama, *Police launch facial recognition system to nab criminals* (Sept. 18, 2018), https://www.biometricupdate.com/201809/kenyan-police-launch-facial-recognition-on-urban-cctv-network

[2300] Ibid.

[2301] Freedom House, *Freedom in the World 2022 – Kenya (2022),* https://freedomhouse.org/country/kenya/freedom-world/2022

[2302] Ibrahim Index of African Governance, *Rwanda, 2021, Overall Governance,* https://iiag.online/data.html?loc=RW&meas=GOVERNANCE

[2303] Kenya Law Reform Commission, *The Constitution of Kenya: Chapter 4- The Bill of Rights* (2023), https://www.klrc.go.ke/index.php/constitution-of-kenya/110-chapter-four-the-bill-of-rights

Peoples Rights, the International Convention on Civil and Political Rights
(ICCPR), and the International Covenant on Economic, Social and Cultural
Rights (ICSECR).

OECD / G20 AI Principles

Kenya is not a member of the OECD and has not endorsed the
OECD AI principles.[2304] The country maintains communication with the
OECD AI Observatory, reporting on AI strategies, initiatives, and policies
such as AI Use Case in the Public Sector; Blockchain and AI Task Force;
Emerging Digital Technologies for Kenya- Exploration and Analysis;
Kenya's Digital Economy Blueprint; Kenya's Digital Economy Strategy;
and Kenya's Digital Literacy Program (Digischool). These initiatives
address the commitment to one or more OECD AI principles however no
reports are available about implementation.[2305]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Kenya is a UNESCO member state since 1964,[2306] and was one of
the 193 member states that adopted the Recommendation on the Ethics of
Artificial Intelligence in November 2021.[2307]

According to the UNESCO AI Needs Assessment Survey in Africa,
Kenya has been active in initiatives to improve participation through
improvements in internet access under the Rights, Openness, Accessibility,
and Multi-stakeholder participation. The report does not include
information about Kenya's progress in strategies, policies, legislations,
ethical guidelines, centers of excellence on AI, start-up, and incubation
centers.[2308]

In March 2022, the Government of Kenya in collaboration with
UNESCO organized the first Eastern Africa Sub-Regional Forum on
Artificial Intelligence in order to examine the potential for AI to bring new
possibilities for sustainable development and societal change for Eastern
Africa and the adjacent Indian Ocean islands. The purpose of the Forum

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[2304] OECD, *Forty-two countries adopt new OECD Principles on Artificial intelligence*
(May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-
principles-on-artificial-intelligence.htm

[2305] OECD.AI, *AI in Kenya* (2022), https://oecd.ai/en/dashboards/countries/Kenya

[2306] UNESCO, *List of the Member States and the Associate Members of UNESCO and the
Date on Which (or Associate Members) of the Organization*
https://en.unesco.org/countries#:~:text=The%20Organization%20has%20193%20Membe
rs,Procedure%20of%20the%20General%20Conference

[2307] UNESO, *Ethics of Artificial Intelligence* https://www.unesco.org/en/artificial-
intelligence/recommendation-ethics

[2308] UNESCO, *Artificial Intelligence Needs Assessment Survey in Africa* (2021),
https://unesdoc.unesco.org/ark:/48223/pf0000375322

was to "stimulate discourse on the AI policy environment within the Eastern African Sub-region to support the development and use of universally agreed ethical practices in AI globally. It will highlight how Eastern African Member States can benefit from AI if harnessed well, and how to surmount challenges with a particular focus on achieving the United Nations Agenda 2030 Sustainable Development Goals and the African Union Agenda 2063."[2309]

Evaluation

Kenya is stepping up its efforts in establishing a comprehensive framework for digital policies in line with developments in the African Union. Kenya has updated its data protection legal regime, created an independent data protection commission and provided for the right to algorithmic transparency. However, Kenya is yet to adopt a national AI policy which would reflect the commitment it took by endorsing the UNESCO Recommendation on the Ethics of AI. Serious concerns exist with regard to practices akin to AI-powered mass surveillance.

[2309] UNESCO, *The Eastern Africa Sub-regional Forum on Artificial Intelligence* (March 4, 2022), https://events.unesco.org/event?id=1253710854&lang=1033

Korea
National AI Strategy

Korea's "National Strategy for Artificial Intelligence"[2310] was announced in December 2019. While its main focus is on building a world-class AI technical capacity through ambitious targets such as "achieving a world top 3 digital competitiveness by 2030", it also aims to address AI ethics and algorithmic transparency-related issues under the pillar of realizing people-centered AI.

The National Strategy materializes the "Presidential Initiative for AI" that former President Moon Jae-in announced on October 28, 2019. "AI is moving beyond scientific and technological advancements and is approaching us as a new civilization (…) AI will not only affect industrial sectors but also solve many issues facing our society: public health in an aging society, welfare for senior citizens living alone, the safety of women living by themselves, and the prevention of crimes that are becoming more sophisticated," stated former President Moon Jae-in.

Korea's National Strategy identifies nine major axes and 100 major tasks in three major areas. The major areas are (1) fostering a global-leading AI ecosystem, (2) becoming a country unrivaled for its use of AI, and (3) realizing people-centered AI. The Strategy is the result of a cooperation of the entire Korean ministries and offices including the Ministry of Science and ICT, the Ministry of the Interior and Safety, the Ministry of Education, and the Presidential Committee on the Fourth Industrial Revolution (PCFIR).[2311]

In September 2022, the Presidential Committee on the Fourth Industrial Revolution (PCFIR) was formally ended[2312] and the Presidential Committee on Digital Platform Government was launched on September 2.[2313] The new Committee will be responsible for evaluating policies and

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[2310] The Government of the Republic of Korea, *National Strategy for Artificial Intelligence* (Dec. 17, 2019), https://www.msit.go.kr/bbs/view.do?sCode=eng&nttSeqNo=9&bbsSeqNo=46&mId=10&mPid=9

[2311] Presidential Committee on the Fourth Industrial Revolution, *About PCFIR* (2020), https://stip.oecd.org/stip/interactive-dashboards/policy-initiatives/2021%2Fdata%2FpolicyInitiatives%2F16688

[2312] *Disengagement of PCFIR* (July 16, 2022), https://news.mt.co.kr/mtview.php?no=2022071517260121218

[2313] Presidential Committee on Digital Platform Government, https://dpg.go.kr/

projects related to AI, infrastructures, and services for creating a Digital Platform for Government according to a human-centered vision.[2314]

Meanwhile, the National Data Policy Committee announced that specific regulatory amendments pertaining to the metaverse will be developed.[2315] The Committee found specifically that the South Korean framework that exists for video gaming was insufficient to deal with metaverse issues. Vice Chairman of the Korea Communications Commission, Ahn Hyoung-hwan, met with a metaverse platform provider to discuss growing concerns over South Korean minors being subjected to sexual harassment on metaverse platforms.[2316]

In September 2022, President Yoon Suk-yeol visited University of Toronto for AI roundtable, discussed AI and collaboration between University of Toronto and South Korean partners.[2317] As an extension of the roundtable, the Ministry of Science and ICT announced "The Digital Strategy of Korea" in line with President Yoon's vision. The purpose is for Korea "to become a best practice country in digital innovation and take a leap forward as a leading country in the digital era, rather than staying stagnant as a fast-follower."[2318]

In addition, MSIT announced the 'Plan for Mainstreaming Artificial Intelligence and Industrial Advancement' in January 2023, as a follow-up plan for the Korean Digital Strategy. The plan will promote the advancement of AI industry and technology while sharing benefits with the public by investing in 10 core AI projects.[2319]

[2314] Yonhap News Agency, *Yoon calls for improving public services through 'digital platform government'* (Sept. 2, 2022),
https://en.yna.co.kr/view/AEN20220902004700315

[2315] Ministry of Science and ICT, *MSIT to vitalize digital economy with regulation amendments!* (Sept. 15, 2022),
https://www.msit.go.kr/eng/bbs/view.do?sCode=eng&mId=4&mPid=2&pageIndex=&bbsSeqNo=42&nttSeqNo=731&searchOpt=ALL&searchTxt=

[2316] Tim Fries, *S. Korea Enlists Meta's Help Amid Reports of Virtual Sexual Harassment* (20 Sept. 2022), https://247wallst.com/investing/2022/09/20/s-korea-enlists-metas-help-amid-reports-of-virtual-sexual-harassment/

[2317] https://www.utoronto.ca/news/south-korean-president-yoon-suk-yeol-visits-u-t-ai-roundtable

[2318] Ministry of Science and ICT, *Korea to Come up with the Roadmap of Digital ROK, Realizing the New York Initiative*,
https://www.msit.go.kr/bbs/view.do?sCode=eng&mId=4&mPid=2&bbsSeqNo=42&nttSeqNo=742

[2319] Digital Times, *The government will invest 712.9 billion won this year to normalize AI and upgrade industries* (Jan. 26, 2023),
http://www.dt.co.kr/contents.html?article_no=2023012602109931081010&ref=naver

AI Ethics

Korea's "National Strategy for Artificial Intelligence" includes "preventing AI dysfunction and establishing AI ethics" as one of nine major actions and aims to set up AI Ethics Principles through public consultation.[2320]

As a follow-up action to establish the comprehensive AI ethical standards which all members of society – developers, providers, and users – can refer to, from development to use of AI, the Korean government has formed an AI ethics research team and analyzed the commonalities and differences in OECD AI Principles and 25 global major AI ethical principles. As a result, in December 2020, the Korean Ministry of Science and ICT announced the Korean AI Ethical Standards[2321] at the plenary session of the Presidential Committee on Fourth Industrial Revolution. The Standards include 3 basic principles to ultimately materialize 'Humanity' in the development and utilization of AI, as well as 10 key requirements to back up these principles. The 3 basic principles are Human dignity, Public interests and Technological teleology. The 10 key requirements are Human rights advocacy, Privacy protection, Respect for Diversity, Injunction against infringement, Public interests, Solidarity, Data management, Accountability, Safety and Transparency.

In May 2021, the Ministry of Science and ICT announced the national strategy to build social trust in the era of AI. The strategy explicitly put an emphasis on the development of relevant technologies to pursue three ethical values, namely Explainability, Fairness and Robustness.[2322]

Improvement of Policies and Laws for the Era of AI

In May 2020, the Korean government amended the Framework Act on National Informatization,[2323] now the Framework Act on Intelligence Informatization. "The purpose of this Act is to contribute to realizing an

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[2320] *National Strategy for Artificial Intelligence* (Dec. 2019), p. 49,
https://www.msit.go.kr/cms/english/pl/policies2/__icsFiles/afieldfile/2020/03/23/National%20Strategy%20for%20Artificial%20Intelligence_200323.pdf
[2321] *Korean AI Ethic Standards,*
https://www.msit.go.kr/bbs/view.do?sCode=user&mPid=112&mId=113&bbsSeqNo=94&nttSeqNo=3179742
[2322] Korea, Artificial Intelligence-Based Policy Division, *Announcing Trustworthy AI Implementation Strategies* (May 13, 2021),
https://www.msit.go.kr/bbs/view.do?sCode=user&mId=113&mPid=112&pageIndex=&bbsSeqNo=94&nttSeqNo=3180239&searchOpt=ALL&searchTxt=
[2323] National Law Information Center, *Framework Act on National Informatization* (2015),
http://www.law.go.kr/lsInfoP.do?lsiSeq=172205&lsId=000028&chrClsCd=010202&urlMode=engLsInfoR&viewCls=engLsInfoR#0000

intelligent information society, securing the national competitiveness, and improving the quality of life for citizens, by prescribing matters necessary to establish and promote policies related to intelligent informatization."[2324] The Act provides a definition for intelligence information technology and the basis for all regulations that address the development and use of AI, such as the basic principles of the intelligence information society, technical requirements, standardization, and personal data protection. This Framework operationalizes in part the National AI Strategy and its idea of a "future-oriented legal system"[2325] based on the review and revision of relevant laws and regulations to address the issues pertaining to the use of AI in (1) data, (2) intellectual property, (3) accountability, (4) regulation of algorithms and trade secret, (5) finance, (6) platform, (7) labor, (8) healthcare, and (9) welfare.

Public participation

The Korea Information Society Development Institute (KISDI) and the Ministry of Science and ICT (MSIT) jointly held an open seminar[2326] to receive a wide range of public comments from the public and private sectors, academia and civil society. The conference was implemented with the mission of changing the direction of AI's implication on Korean society in more benevolent ways, by checking the goodness, fairness as well as validity of "The RoK's AI Utilization Guidelines" and its enforcement as of 2022. Before convening the event, the KISDI actively accepted and reflected a large number of opinions related to Korea's three major AI policy implementation measures: 1. The Self-checklist for practicing AI Ethics Standards[2327], 2. The Instructions to develop AI Accountability and 3. AI Ethics Education.[2328]

[2324] _Article 1 of the Framework Act on Intelligent Informatization_,
https://elaw.klri.re.kr/eng_mobile/viewer.do?hseq=54720&type=sogan&key=54
[2325] The Government of the Republic of Korea, _National Strategy for Artificial Intelligence_ (Dec. 17, 2019),
https://www.msit.go.kr/bbs/view.do?sCode=eng&nttSeqNo=9&bbsSeqNo=46&mId=10&mPid=9
[2326] _Open Policy Seminar for AI Reliability Enhancement_ (Nov. 23, 2021)
https://www.kisdi.re.kr/bbs/view.do?bbsSn=113588&key=m2101113055944
[2327] _A Draft of Self-checklist for practicing AI Ethics Standards was uncovered by the MSIT as follow-up for the conference_,
https://www.aitimes.com/news/articleView.html?idxno=141704
[2328] On Feb 2023, the KISDI and MSIT successfully held an open seminar to promote the textbooks to teach AI Ethics for all Korean students,
https://www.kisdi.re.kr/bbs/view.do?bbsSn=113985&key=m2101113056011&pageIndex=1&sc=&sw=

In September 2022, the MSIT and Gyeonggido Business and Science Accelerator (GBSA) jointly held a contest called "2022 Public participation contest on suggesting AI services"[2329], as an open forum to gather and reflect a variety of public opinions regarding the government's policy implementation. The competition aimed to discover and elaborate human-centered AI services in various areas, ranging from living convenience, and autonomous mobility to crisis response and disaster risk management.

Data Protection

In February 2020, Korea amended the three major data privacy laws to protect personal information and improve the personal data protection and privacy governance system in the era of the 4th industrial revolution.[2330] The three laws are the Personal Information Protection Act (PIPA), the Act on the Promotion of the Use of the Information Network and Information Projection (the Network Act), and the Credit Information Use and Protection Act (the Credit Information Act). These amendments reflect the outcome of the "Hackathon agreements" held in February and April 2018. In May 2018, relevant ministries, civil society organizations and professionals from the industry, including legal circles, participated in the Presidential Committee on the Fourth Industrial Revolution. The Committee discussed the introduction of the use of fictitious names to foster the use of data, reviewing the existing legislation for an increased coherence, and strengthening users' responsibility.

As a result of the amendments to the three major data privacy laws, the mandate of the Personal Information Protection Commission (PIPC) was upgraded in August 2020.[2331] The PIPC is now an integrated and supervisory authority endowed with the task to protect and supervise the use of personal information. The PIPC, initially created in 2011 under the office of the President, now operates independently. The PIPC centralizes various personal information protection functions previously scattered across ministries.

In 2021, the PIPC published an AI Personal Information Protection Self-checklist to provide guidelines for the protection of personal

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[2329] *2022 Public participation contest on suggesting AI services* (Sept. 1, 2022), https://www.egbiz.or.kr/prjCategory/a/m/selectPrjView.do?prjDegreeId=PD000000026757

[2330] Ministry of Culture, Sports and Tourism, *Data 3 Act* (Mar. 30, 2020), https://www.korea.kr/special/policyCurationView.do?newsId=148867915

[2331] Personal Information Protection Commission, *2019 Personal Information Protection Policy Performance at-a-glance* (Sept. 18, 2020) http://www.pipc.go.kr/cmt/english/news/selectBoardArticle.do

information gathered and used by artificial intelligence. The checklist presents 16 specific items to check and 54 items to verify the safe handling of personal information during the AI life cycle: design, development, and operation of AI. 2021 marked also the first case in which the PIPC sanctioned the indiscriminate use of personal information by a company using AI technology. The AI startup was fined as a result of a massive personal data breach.[2332] In June 2022, the PIPC signed self-regulation agreements with ten online shopping platforms for the safe use of personal information.[2333]

In December 2021, the PIPC and the European Commission announced the successful conclusion of their negotiations and the adoption of the European Commission's adequacy decision for the transfer of personal data from the European Union to the Republic of Korea under the General Data Protection Regulation. The adequacy decision confirms the shared commitment of the Republic of Korea and the EU to a high level of data protection.[2334]

The Personal Information Protection Commission (PIPC) is a member of the Global Privacy Assembly (GPA) since 2012. So are the Korea Internet & Security Agency, since 2004, and the Korea Communications Commission, since 2018. The PIPC has taken an active role within the GPA in recent years. In 2020, the GPA adopted a resolution on the privacy and data protection challenges arising in the context of the COVID-19 pandemic. The PIPC co-sponsored the resolution and participated in the GPA COVID-19 task force 2020. It also co-sponsored the 2022 GPA Resolution on Facial Recognition Technology.[2335] The PIPC also serves as a member of the GPA's Policy Strategy Working Group 1:

[2332] YonhapNews Agency, *Developer of AI chatbot service fined for massive personal data breach* (Apr. 28, 2021), https://en.yna.co.kr/view/AEN20210428009500315.

[2333] DataGuidance, *South Korea: PIPC issues press release on online shopping platforms signing self-regulatory agreements for safe use of personal information* (July 14, 2022), https://www.dataguidance.com/news/south-korea-pipc-issues-press-release-online-shopping

[2334] European Commission, *Joint Press Statement by Didier Reynders, Commissioner for Justice of the European Commission, and Yoon Jong In, Chairperson of the Personal Information Protection Commission of the Republic of Korea* (Dec. 17, 2021), https://ec.europa.eu/commission/presscorner/detail/en/statement_21_6915

[2335] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

Global frameworks and standards[2336] and Digital Education Working Group,[2337] whose common purpose is to enhance data protection and AI accountability.

With regard to AI oversight, the PIPC is not the only competent independent agency. The National Human Rights Commission of Korea[2338] advocates for the non-discriminatory use of AI and warns against the risk of bias and deep fake technology.[2339] In a decision of April 11, 2022, the National Human Rights Commission adopted Human Rights Guidelines on the Development and Use of AI.[2340]

Algorithmic Transparency

At the 9th Public, Financial, and Corporate Information Protection & Privacy Conference (PASCON 2021) in 2021, the PIPC unveiled the proposed amendments to the PIPA[2341], and in March 2023, the Korean legislature passed the PIPA amendment Bill.[2342] One of the main amendments concerns data subjects' right to request an explanation regarding automated decisions and the right to object to them.[2343]

[2336] Global Privacy Assembly, *Policy Strategy Working Group 1: Global frameworks and standards* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/Day-1-1_2a-Day-3-3_2b-v1_0-Policy-Strategy-Working-Group-WS1-Global-frameworks-and-standards-Report-Final.pdf

[2337] Global Privacy Assembly, *Digital Education Working Group* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/DEWG-2019-2020-Annual-Report-GPA-20200921-finalannexes_Oct-2020_final-en-211020-1.pdf

[2338] National Human Rights Commission of Korea, https://www.humanrights.go.kr/site/main/index002

[2339] Kim Min-sub, *Does AI discriminate* (July, 2020), http://humanrights.go.kr/site/program/webzine/subview?menuid=003001&boardtypeid=1016&boardid=7605775&searchissue=7605780; Asia Economy, *Human Rights Commission should put human rights protection in AI bill... "Severe threats such as 'deep fake porn'"* (June 1, 2020), https://view.asiae.co.kr/article/2020060110251892308

[2340] National Human Rights Commission of Korea, *Human Rights Guidelines on the Development and Use of Artificial Intelligence* (Apr. 11, 2022), https://apf-prod.s3.amazonaws.com/media/dd/resource_file/10bcc313d56ad7b1ad959f76ef1e04c8.pdf?AWSAccessKeyId=AKIA57J6V557ISASX34R&Signature=JkTfkxj26sq8dyMLwyMt9q1c%2BFw%3D&Expires=1680165784

[2341] *South Korea passes sweeping amendments to data privacy law* (March 3, 2023), https://www.dailysecu.com/form/html/pascon/image/2021/pascon_2021_01.pdf

[2342] *Korea passes extensive amendments to data privacy law* (March 3, 2023), https://www.lexology.com/library/detail.aspx?g=d253d033-68d0-4ba5-b1dd-c77dad6f35e5

[2343] Legal Business Information, *Partial amendment to the Personal Information Protection Act (draft),* https://www.moleg.go.kr/lawinfo/makingInfo.mo?lawSeq=62160&lawCd=0&&lawType=TYPE5&mid=a10104010000

The national strategy to build social trust in the era of AI explicitly refers to "Explainability" as a main ethical value.[2344] The National Human Rights Commission's Human Rights Guidelines on the Development and Use of AI also provides for algorithmic transparency.[2345]

The Framework Act on Intelligence Informatization provides a framework to secure accountability, interoperability, and safety of intelligence information technology.[2346] In May 2022, the Korean government enacted the details and level of technical standards[2347] that are legally required to be open to the public. The technologies subjected to these criteria are, first and foremost, developed, managed, and utilized for military purposes, second, directly utilized for medical purposes and therefore have a tremendous influence on people's lives, and third, likely to cause significant damage to people in case of malfunction."[2348]

Korea also amended its sectoral legislation to reflect new demands for algorithmic transparency. The Credit Information Use and Protection Act introduced the right to challenge decisions based on automated processing.[2349] The Credit Information Act recognizes the data subject's right to challenge an automated credit assessment. It defines "automated credit assessment" as a "credit information company's or other act of evaluating credit information and other data using an information processing device (such as a computer) without the intervention of a human in the evaluation." The Credit Information Act is the first law that empowers individual users toward AI transparency.

[2344] Korea, Artificial Intelligence-Based Policy Division, *Announcing Trustworthy AI Implementation Strategies* (May 13, 2021), https://www.msit.go.kr/bbs/view.do?sCode=user&mId=113&mPid=112&pageIndex=&bbsSeqNo=94&nttSeqNo=3180239&searchOpt=ALL&searchTxt=

[2345] National Human Rights Commission of Korea, *Human Rights Guidelines on the Development and Use of Artificial Intelligence* (Apr. 11, 2022), https://apf-prod.s3.amazonaws.com/media/dd/resource_file/10bcc313d56ad7b1ad959f76ef1e04c8.pdf?AWSAccessKeyId=AKIA57J6V557ISASX34R&Signature=JkTfkxj26sq8dyMLwyMt9q1c%2BFw%3D&Expires=1680165784

[2346] National Law Information Center, *Framework Act on Intelligence Informatization* (June 9, 2020), https://www.law.go.kr/lsSc.do?section=&menuId=1&subMenuId=15&tabMenuId=81&eventGubun=060101&query=%EC%A7%80%EB%8A%A5%EC%A0%95%EB%B3%B4#undefined

[2347] Korean Law Information Center, https://www.law.go.kr/LSW/eng/engMain.do

[2348] See *Article 16 and 21 of the Technical Standards*, https://www.law.go.kr/법령/지능정보화기본법/(20220721,18298,20210720)/제21조

[2349] Chambers and Partners, *Data Protection & Privacy 2021, South Korea* (Mar. 9, 2021), https://practiceguides.chambers.com/practice-guides/comparison/627/6273/10386-10395-10401-10406-10414.

EdTech and Children Tracking

In their report investigating use of EdTech tools endorsed by governments for online learning during the pandemic,[2350] Human Rights Watch noted that Korea Educational Broadcasting System (EBS), the website of Korea's national educational public broadcaster, with over 2.1 million daily users during the Covid-19 school closure, tracked "a child's every movement and interaction within the virtual classroom" and sent children's data to 15 AdTech companies. Nonetheless, the EBS "does not disclose the use of ad trackers on the site."[2351] "Nor are the AdTech companies detected by Human Rights Watch to receive children's data disclosed in the list of third parties officially recognized as processors of EBS users' personal data."[2352]

Human Rights Watch urged governments and ministries and departments of education to "adopt child-specific data protection laws that address the significant child rights impacts of the collection, processing, and use of children's personal data" and "allocate funding to pay for services that safely enable online education, rather than allowing the sale and trading of children's data to finance the services."[2353]

Lethal Autonomous Weapons

The Korean government takes a stance against developing lethal autonomous weapons and rather focus on supporting non-weapon systems such as effective management of military supplies or human decision-making process.[2354]

In October 2022, the Republic of Korea was one of 70 states that endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an

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[2350] Human Rights Watch, *"How Dare They Peep into My Private Life? " Children's Rights Violations by Governments That Endorsed Online Learning During the Covid-19 Pandemic* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[2351] Ibid.

[2352] Ibid.

[2353] Ibid.

[2354] ZDNet, *University boycott ends after 'KAIST' confirms no 'killer robot' development* (Apr. 10, 2018), https://www.zdnet.com/article/university-boycott-ends-after-kaist-confirms-no-killer-robot-development

international framework of rules and constraints.[2355] In this joint statement, States declared that they "are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[2356]

In February 2023, Korea co-hosted, together with the Netherlands, an international summit on the responsible application of artificial intelligence in the military domain. The aim of the summit was to define an agenda for developing international agreements on AI applications in the military.[2357] At the end of the Summit, Korea, together with other participant countries, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[2358] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including

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[2355] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly* (2022), https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

[2356] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77ᵗʰ United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

[2357] Government of the Netherlands, *The Netherlands to host international summit on artificial intelligence* (Sept. 21, 2022), https://www.government.nl/latest/news/2022/09/21/the-netherlands-to-host-international-summit-on-artificial-intelligence

[2358] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[2359]

Human Rights

According to Freedom House, Korea is a "free" country. Its "democratic system features regular rotations of power and robust political pluralism, with the largest parties representing conservative and liberal views. Civil liberties are generally respected, though the country struggles with minority rights and social integration."[2360]

The Korean government established the National Human Rights Commission of Korea (NHRCK) in 2001 as a national advocacy institution for human rights protection.[2361] During his congratulatory remark on 2018 Human Rights Day in December, former President Moon Jae-in stated "when human rights are realized in everyday lives, their value is demonstrable (…) Human rights are guaranteed through peace, and peace is secured through human rights." He also extended his gratitude to NHRCK for "fully demonstrating the history and significance of the Universal Declaration of Human Rights."[2362]

In addition, the Korean government has been an active member in the seven core international human rights instruments including the "International Covenant on Civil and Political Rights" and "International Covenant on Economic, Social, and Cultural Rights." Especially since its entry into the United Nations (UN) in 1991 and the Commission of Human Rights (CHR) in 1993, Korea has been engaged in various international cooperation activities for the improvement of human rights, especially the rights of the vulnerable and the North Koreans.[2363]

OECD / G20 AI Principles

The Korean government has been actively participating in international cooperation in the AI sector to promote responsible development and the use of AI. Korea endorsed the OECD AI Principles in

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[2359] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action
[2360] Freedom house, *Freedom in the World 2022 – South Korea*, https://freedomhouse.org/country/south-korea/freedom-world/2022
[2361] National Human Rights Commission of Korea, *Purpose* (2001), https://www.humanrights.go.kr/site/homepage/menu/viewMenu?menuid=002001001001
[2362] Cheong Wa Dae, *Congratulatory Remarks by President Moon Jae-in on 2018 Human Rights Day* (Dec. 10, 2018) https://english1.president.go.kr/Briefingspeeches/Speeches/101
[2363] Ministry of Foreign Affairs, *Human Rights Diplomacy,* https://www.mofa.go.kr/eng/wpge/m_5648/contents.do

2019[2364] as well as the G20 principles. The Korean government is also one of the founding members of the Global Partnership on AI (GPAI), the world's first international AI initiative.[2365]

At the Ministerial Council Meeting of October 2021, the Korean Ministry of Science and ICT presented the "Progress over the past two years in implementing the OECD AI Principles and Future Direction."[2366] A general director of the AI policy bureau at the Ministry of Science and ICT, Ms. Kyunhee Song, presented Korea's progress in accordance with the OECD AI Principles. As part of the effort to implement the OECD AI Principles, the Korean government also established the 'National Strategy of Artificial Intelligence (2019)' and the 'Digital New Deal Strategy (2020) (Data Dam Projects).

To further its commitment to AI ethics, Korea has joined the Steering Group for OECD's Working Party on Artificial Intelligence Governance.

UNESCO Recommendation on the Ethics of Artificial Intelligence

Korea has been playing an active role from the drafting to the implementation of the UNESCO Recommendation on the Ethics of AI.

In July 2020, Korea co-organized the Virtual Regional Consultation for Asia and the Pacific Region on the first draft of the Recommendation on the Ethics of AI with UNESCO. [2367] The conference discussed the text of the Recommendation and sought feedback reflecting different cultural values while addressing various regional concerns to achieve a "truly inclusive and pluralist instrument."

In 2021, the Korean government presented the results of ongoing projects supported by various public donors and identified new opportunities for cooperation with UNESCO. The Ministry of Science and ICT informed UNESCO of the support of the Korean government to the drafting of the UNESCO Recommendation on the Ethics of AI. The Ministry of Science and ICT and the Korean Information Science

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[2364] OECD, *Forty-two countries adopt new OECD Principles on Artificial Intelligence* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[2365] OECD, *OECD to host Secretariat of new Global Partnership on Artificial Intelligence* (June 15, 2020), https://www.oecd.org/going-digital/ai/oecd-to-host-secretariat-of-new-global-partnership-on-artificial-intelligence.htm

[2366] OECD, *Putting the OECD AI Principles into practice: progress and future perspectives* (Oct. 4, 2021), https://oecd.ai/en/mcm

[2367] UNESCO, *Virtual Regional Consultation on the Ethics of Artificial Intelligence (Asia and the Pacific Region)* (July 23, 2020), https://events.unesco.org/event?id=3263297185&lang=1033

Development Institute (KISDI) participated in two Intergovernmental Meetings and Intersessional Consultations for intergovernmental negotiations for the Recommendation. The Ministry of Science and ICT provided in-depth comments on the draft to make the Recommendation actionable with regard to future AI policy. In that process, the Korean government consented to the purpose and values of the Recommendation and provided feedback to clarify policy actions for the draft.

Together with the Korean National Commission for UNESCO, Korea Legislation Research Institute (KLRI) hosted a forum themed "UNESCO's Recommendations on AI Ethics and Legal Challenges" in April 2021, which discussed the status of UNESCO's Recommendation and significant legal issues with the advent of AI technologies, urging for collaboration between the two organizations to address ethical and legal challenges posed by AI.[2368]

In December 2022, the Ministry of Science and ICT of Korea attended the first UNESCO Global Forum on Artificial Intelligence Ethics online hosted by the Czech Republic in Prague,[2369] recalling the significance of the Recommendation and discussing its implementation.[2370]

Evaluation

Korea is one of the leading countries in the field of AI policy. Korea has adopted a comprehensive National Strategy for AI, developed a strong ethical framework, and has promoted a "future-oriented" legal system. Korea has endorsed the OECD / G20 AI principles and played an active role in the drafting and implementation of the UNESCO Recommendation on the Ethics of AI. Korea has updated national privacy laws, established a Personal Information Protection Commission, and maintains a leading role in the defense of human rights. Although Korea's Personal Information Commission endorsed the 2022 GPA Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology, the absence of regulation of the use of facial recognition at national level still needs to be addressed.

[2368] Korea Legislation Research Institute, *Korea Legislation Research Institute and Korean National Commission for UNESCO co-hosted a Forum and Completed a MOU* (Apr. 16, 2021), https://www.klri.re.kr/eng/news/E/1092/view.do

[2369] UNESCO, *First Global Forum on Ethics of AI held in Prague, one year after the adoption of UNESCO's Recommendation* (Dec. 14, 2022), https://www.unesco.org/en/articles/first-global-forum-ethics-ai-held-prague-one-year-after-adoption-unescos-recommendation

[2370] Jinyong Lee, *The Ministry of Science and ICT participates in the first UNESCO AI Ethics Forum* (Dec. 15, 2022), https://www.smarttimes.co.kr/news/articleView.html?idxno=3890

Kuwait

National AI Strategy

  Kuwait's focus on the diversification of its oil-based economy is the basis of the "Kuwait Vision 2035 – New Kuwait,"[2371] the country's National Development Plan requiring investment in R&D, propelled by industry, government, and academia. Kuwait does not have a national AI strategy yet. The country's engagement with AI takes place within the context of the New Kuwait Plan focus on the digital economy and Information and Communication Technologies (ICT).[2372]

  Launched in 2017, the New Kuwait Development Plan aims to transform the country into a financial and commercial hub for the region. The plan is aligned with the SDG 2030 and more particularly the objective of "consolidating the values of society, preserving its identity, as well as achieving justice, political participation and freedoms."[2373] The seven pillars of the Kuwait Vision 2035 are:[2374] (1) public administration (2) economy (3) infrastructure (4) living environment, (5) healthcare, (6) human capital, and (7) global position. The public administration pillar has the objective of "reform[ing] administrative and bureaucratic practices to reinforce transparency, accountability and efficiency in the government."

  In 2017 as well, the Kuwaiti government issued the first National Cyber Security Strategy (2017-2020). Notable in the strategy is the declaration of the State of Kuwait to ensure that the strategy "preserves the fundamental rights, freedom and privacy of individuals and institutions."[2375] The strategy defines three objectives for the creation of a cybersecurity environment that is safe and secure, through the development of legislation that keeps pace with technology and aligns with international standards.[2376]

[2371] Ibid.

[2372] Oxford Business Group, *Kuwait's government embraces change and innovation in ICT sector,* https://oxfordbusinessgroup.com/overview/making-connections-government-works-keep-pace-tech-savvy-population

[2373] Ministry of Foreign Affairs, *Kuwait Vision 2035 "New Kuwait,"* https://www.mofa.gov.kw/en/kuwait-state/kuwait-vision-2035/

[2374] New Kuwait, *New Kuwait Campaign Launch Event* (Jan 30, 2017), http://www.newkuwait.gov.kw/image/NewKuwait_CampaignLaunchEvent.pdf

[2375] CITRA, *Cyber Security Strategy 2017-2020, First Edition 2017,* https://citra.gov.kw/sites/en/LegalReferences/English%20Cyber%20Security%20Strategy.pdf

[2376] Council of Europe, *Kuwait: Cybercrime policies/strategies,* (2020), https://www.coe.int/en/web/octopus/country-wiki-ap/-/asset_publisher/CmDb7M4RGb4Z/content/kuwait/pop_up#:~:text=and%20child%20pornography.-,Law%20No.,and%20swearing%E2%80%9D%20as%20a%20cybercrime.

Kuwait's Communications and Information Technology Regulatory Authority (CITRA) declared the importance of adopting artificial intelligence[2377] and cloud computing techniques to achieve the New Kuwait 2035 strategy's objectives. Another government entity, the Central Agency for Information Technology (CAIT) has also a key role in implementing a roadmap for government in digital transformation, and announced the launch of the Massar strategy during the Smart Government Summit in May 2022.[2378]

Government entities such as CAIT are making concerted efforts to advance the digital transformation roadmap in Kuwait. In November 2022, CAIT hosted the Digital Transformation Kuwait Conference, to discuss digitization in government services and the pathway to the digital economy. The Deputy Director General of CAIT expressed the need for "cooperation between government and private sector to build, and advanced digital economy coupled with a flexible legislative system that dedicates uniformity to the sector's cybersecurity policies, guidelines and strategies."[2379]

In September 2022, as a member State of the Digital Cooperation Organization (DCO), Kuwait endorsed The Riyadh AI Call for Action (RAICA) Declaration "aimed at advancing the DCO's commitment to identifying and addressing present, emerging and future humanitarian issues in the field of AI."[2380] RAICA was launched during the Global AI Summit of 2022[2381] and established a commitment to developing AI technology that benefits people, communities, and nations.

[2377]CITRA, *Kuwait confirms the importance of artificial intelligence techniques in achieving the objectives of vision* (New Kuwait 2035) (Dec. 19, 2018), https://citra.gov.kw/sites/en/Pages/NewsDetails.aspx?NewsID=55

[2378] Times Kuwait, *Kuwait's CIAT: Speeding efforts for smart gov't, digital transformation 'important'* (May 31, 2022), https://timeskuwait.com/news/speeding-efforts-for-smart-govt-digital-transformation/

[2379] Digital Transformation Kuwait, *Kuwait Digital Transformation Conference Opens today to Achieve Kuwait 2035 Vision to transform into a Digital Society and Economy* (Nov. 2, 2022), https://www.zawya.com/en/press-release/events-and-conferences/kuwait-digital-transformation-conference-opens-today-to-achieve-kuwait-2035-vision-to-transform-into-a-digital-society-and-economy-vi56h38s

[2380] Kuwait Public Policy Center, *Towards an Integrated Public Administration Reform for the Digital Governance* (2019) https://kppc.scpd.gov.kw/sites/default/files/2020-04/01-PA-White-Paper-KPPC-PRINT.pdf
The Riyadh AI Call for Action Declaration, September 22,2022. https://www.dcoinsights.com/RAICA/

[2381] WIRED, *The Key wins of Saudi Arabia's Global AI Summit.* (Sep 27, 2021). https://wired.me/technology/saudi-arabia-global-ai-summit/

CAIT and Digital Transformation Kuwait will host the "Achieving 2035 Vision Through Digital Transformation" Summit in November 2023.[2382] The themes of the conference do not specifically address artificial intelligence but will provide more broadly an overview and some updates on the Kuwait 2035 vision, as well as key aspects of government performance, digital society and economy, digital transformation across sectors, and national digital skills.

Public Participation

The Kuwait Government's online platform is the channel of communication of the government with the society, providing information about laws and regulations and increasing awareness of information technology.[2383] The platform includes a list of government entities using e-services with channels for consultation. Kuwait is yet to have a mechanism to engage civil society in AI policy-making and the formulation of an AI strategy but efforts exist in other spheres.

The Kuwait Vision Engagement Program 2035 (برنامج المشاركة لرؤية الكويت) included a mechanism providing an opportunity for the society to provide input in the formulation of the New Kuwait document.[2384] Individuals, government organizations, private companies, NGOs, or volunteers were able to submit their interest in various roles, such as ambassadors, pledgers, enablers, innovators, spreaders, and entrepreneurs.

The Kuwaiti Government produced the Country Engagement Framework (CEF) as part of the Third Kuwait National Development Plan (KNDP-3) within the New Kuwait 2035 Vision. This policy framework, produced in consultation with stakeholders and with the support of the World Bank,[2385] reflected the analysis of issues and challenges regarding the seven pillars of Vision 2035.

On the civil society front, the Kuwait Transparency Society, a non-profit organization in Kuwait, participated in drafting the executive regulations of the "Right of Access to Information Law" passed in

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[2382] Digital Transformation Kuwait, *Achieving 2035 Vision Through Digital Transformation* (Nov. 2023), *https://digitaltransformationkuwait.com/*
[2383] Kuwait Government Online, *Directory of Government entities*, https://e.gov.kw/sites/kgoenglish/Pages/OtherTopics/KGD.aspx
[2384] *Kuwait Vision Engagement Program 2035*, https://www.mofa.gov.kw/en/kuwait-state/kuwait-vision-2035/

[2385] State of Kuwait, *World Bank Country Engagement Framework 2021-2025* (Jan, 2021), https://thedocs.worldbank.org/en/doc/06a7eba0bc51a01f8b1e4ba80be0bcdf-0280012021/original/KuwaitCEF-2021-2025-Final-English.pdf

November 2021.[2386] The focus group included a team of governmental experts to improve the final format of the regulations in line with international experiences.[2387] The Society monitors the regulations implementation and trains government agencies in implementing the law in line with transparency and anti-corruption standards.

Kuwait has embraced e-government plans, to enhance transparency and decentralization of public services, to minimize the control of government officials on operations.[2388] This is still work in progress, as reported by the Bertelsmann Foundation country report,[2389] which by 2022 ranked Kuwait #68 out of 137 countries, substantially lower than in previous years, with low scores in "Rule of Law" and "political participation."

Data Protection

The Kuwait's Constitution protects the right to privacy. Article 39 reads: "Freedom of postal, telegraphic, and telephone correspondence is maintained, and secrecy is ensured." Messages may not be monitored unless required by law and only in compliance with established processes." [2390]

Kuwait lacks a dedicated personal data protection legislation and a data protection supervisory entity.[2391] Two government entities: CITRA and CAIT, are responsible for the regulation and governance respectively, of information technology services in the country. CITRA[2392] is the Communication & Information Regulatory Authority, responsible for regulating, supervising, and monitoring the telecommunication sector of

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[2386] Kuwait Transparency Society, *Kuwait lags behind most GCC states in gender equality: KTS*
Government sectors performed distinctively well during pandemic (Feb 6, 2022), http://transaprency.org.kw

[2387] UNCAC Coalition, Kuwait Transparency Society, https://uncaccoalition.org/kuwait-transparency-society/

[2388] Naser Almutairi, Ahmad AL-Hussaini and Shebiab Fahad Thuwaini, *The Impact of Adopting E-Government on Reduce Administrative Corruption: Empirical Evidence from Kuwait's Public Sector, Public Authority of Applied Education and Training Collage of Business* (2013), https://api.semanticscholar.org/CorpusID:14973254

[2389] BertelsmannStiftung Foundation, *BTI Transformation Index. Kuwait Country Report 2022, https://bti-project.org/en/reports/country-report/KWT*

[2390] Kuwait, *Constitution. Art. 39,* https://www.constituteproject.org/constitution/Kuwait_1992.pdf?lang=en

[2391] DLA Piper, *Data Protection Laws of the World, Kuwait,* (2023), https://www.dlapiperdataprotection.com/index.html?t=law&c=KW

[2392] CITRA, *Law of CITRA Communication & Info. Technology Regulatory Authority*, https://www.citra.gov.kw/sites/en/Pages/LawofCITRA.aspx

Kuwait and protecting the interest of users.[2393] CAIT is the Central Agency for Information Technology, responsible for IT governance.[2394]

CITRA has made efforts to provide governance and regulation to the technology sector, through Decision No. 42 of 2021 on Data Privacy Protection Regulation (DPPR)[2395] and the Cybersecurity strategy.[2396] The DPPR describes data protection obligations on Telecommunication Services Providers and associated industrial sectors in terms of data collection, storage, processing, and transfer.[2397] Human-centered values and fairness may be inferred from the DPPR mandate to "respect the rights and freedoms of natural and legal persons" [Article 7],[2398] setting provisions against the harmful use of personal data by third parties [Clause 26]. Penalties are also established in case of violations of these rights. Complementing DPPR, CITRA issued the Data Classification Policy (DCP) as guidance for data protection for entities dealing with massive amounts of data. The DCP categorizes data in four tiers: Tier 1 Public data, Tier 2 private insensitive data, Tier 3 Private sensitive data, and Tier 4 Highly sensitive data.[2399] Missing in both regulations is a specific mention of automated decision-making systems and relevant protections in such cases.

The DPPR governs the collection and processing of personal data via Service Providers of Communication and Information Technology Services (CIT Service) in the public and private sectors. CIT Services include public telecommunications networks, the operation of a website, smart application, or cloud computing services, by any natural or legal person.

[2393] CITRA, *Regulations and Decisions*,
https://www.citra.gov.kw/sites/en/Pages/regulations.aspx
[2394] CAIT, *Kuwait Government Online Portal (e.gov.kw)*,
https://www.cait.gov.kw/National-Projects/Official-portal-for-the-State-of-Kuwait.aspx
[2395] CITRA, *Data Privacy Protection Regulation*, V1.8,
https://www.citra.gov.kw/sites/en/LegalReferences/Data_Privacy_Protection_Regulation.pdf
[2396] CITRA*, National Cyber Security Strategy for the state of Kuwait, 2017-2020,* (2017),
https://citra.gov.kw/sites/en/LegalReferences/English%20Cyber%20Security%20Strategy.pdf
[2397] DLA Piper, *Data Protection Laws of the World*, *Kuwait*, (2023),
https://www.dlapiperdataprotection.com/index.html?t=law&c=KW
[2398] CITRA, *Data Privacy Protection Regulation*, V1.8
https://www.citra.gov.kw/sites/en/LegalReferences/Data_Privacy_Protection_Regulation.pdf
[2399] CITRA, *Data Classification Policy. State of Kuwait V2.3* (n.d.)
https://www.citra.gov.kw/sites/en/LegalReferences/Data_Classification.pdf

The DPPR requires the determination of mechanisms and standards for encryption in line with the Data Classification policy of CITRA. Service Providers must comply with certain conditions for data processing, such as a) providing users with clear, easy access to their data practices and policies, b) maintaining a clear purpose for data collection (purpose limitation) and c) maintaining appropriate technical and organizational measures to ensure that personal data is protected against unauthorized or illegal processing, accidental loss, destruction or damage, among other conditions. Exempted from the DPPR are natural persons collecting and processing personal or family data, and security agencies processing personal data to prevent, investigate, or detect crimes, or to prosecute criminals, enforce, or prevent threats against public security.

The Law No. 20 of 2014 on Electronic transactions includes privacy safeguards for privacy and data protection of civil, commercial, and administrative transactions, controlling electronic records, signatures, transactions, messages, and documents relating to these activities, but no specific mention to safeguards on interactions with AI-powered systems.[2400]

The Law No. 63 of 2015 related to Combating Information Technology Crimes (Cyber Crime Law) regulates acts performed using an "information network" or "information technology."[2401] Punishable under this law are hacking computer systems, accessing personal data without authorization, fraud, posting pornography, and engaging in human trafficking over the Internet. Articles 6 and 7 extend bans on print publications to online sharing of information, including online journalism and private use of social media and blogs.[2402]

The Cyber Crime Law, enforced since 2016, faced criticism for permitting restrictions on Internet-based speech.[2403] Nothing in the Cybercrime law precludes police from utilizing these criteria to monitor private communications on Twitter, Facebook, and other social media platforms and mobile phone apps.[2404] An analysis by the Council of Europe (CoE) of the Cybercrime Law No 63 and Law No 20 of 2014 on Electronic Transactions found several areas of misalignment with the Budapest

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[2400] Kuwait, *Law No. 20 of 2014 Concerning Electronic Transactions* https://www.e.gov.kw/sites/kgoArabic/Forms/MagazineA.pdf
[2401] Ministry of Interior, *Cybercrime Law*, https://www.moi.gov.kw/main/sections/cyber-crime?culture=en
[2402] Human Rights Watch, *Kuwait: Cybercrime Law a Blow to Free Speech*.(Jul 22, 2015) https://www.hrw.org/news/2015/07/22/kuwait-cybercrime-law-blow-free-speech
[2403] Human Rights Watch, *Kuwait: Cybercrime Law a Blow to Free Speech* (Jul. 22, 2015), https://www.hrw.org/news/2015/07/22/kuwait-cybercrime-law-blow-free-speech
[2404] Ibid.

Convention.[2405] This development contrasts with the original objectives of the National Cybersecurity Strategy of 2017-2020 that made "fundamental rights, freedom and privacy of individuals and institutions" a priority.[2406]

In January 2022, the Kuwaiti government announced a Cyber Security Bill to amend Law No. 63 of 2015 and established the National Center of Cybersecurity.[2407] In a statement to the United Nations General Assembly in October 2022, the Kuwaiti Diplomatic attaché stressed the importance of the Cybersecurity Strategy 2017-2020 to "protect vital national and informational infrastructure and assets."[2408]

Algorithmic Transparency

Kuwait has not enacted algorithmic transparency in law but the DPPR[2409] requires providers to ensure transparency throughout collection and data processing. Yet, the DPPR does not include articles addressing automated decision-making, explainability or AI-related transparency obligations.

Biometric Identification

Kuwait efforts in digital government started in the early 2000s, following the GCC's decision to create electronic ID schemes for residents across the region. Kuwait launched the ID card program and eGovernment services in 2009. By 2012, Kuwait Ministry of Interior set up a biometric system in all land, sea, and airports, to track wanted individuals attempting to enter illegally to the country, and in 2016, launched a new e-passport system to combat forgery in immigration ports.[2410]

In April 2020, the Kuwaiti government launched the new Digital ID card, entrusting the project's management to the Public Authority for Civil

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[2405] Council of Europe, *Status regarding Budapest Convention* (2020), https://rm.coe.int/octocom-legal-profile-kuwait/16809e5372

[2406] CITRA, *Cyber Security Strategy 2017-2020* (2017), https://citra.gov.kw/sites/en/LegalReferences/English%20Cyber%20Security%20Strategy.pdf

[2407] Zawya, *Kuwait approves cyber security bill* (Jan. 19, 2022), https://www.zawya.com/en/legal/kuwait-approves-cyber-security-bill-c9dw5oy0

[2408] Times Kuwait, *Kuwait to United Nations: Cybersecurity is essential defense against cybercrime* (Oct. 26, 2022), https://timeskuwait.com/news/kuwait-to-united-nations-cybersecurity-is-essential-defense-against-cybercrime/

[2409] CITRA, *Data Privacy Protection Regulation*, https://www.citra.gov.kw/sites/en/LegalReferences/Data_Privacy_Protection_Regulation.pdf

[2410] Stephen Mayhew, *Kuwait launching new e-passport system by September* (May 12, 2016), https://www.biometricupdate.com/201605/kuwait-launching-new-e-passport-system-by-september

Information (PACI).[2411] The new Civil ID card would become the primary way of verifying the digital identity of all Kuwaiti citizens and residents and replace the physical card. The Civil ID was a crucial component in streamlining administrative operations to support Kuwait's comprehensive digital government project, aimed to change the way citizens and residents receive government services.

The new Civil ID card has a microprocessor that can store massive information, including digital certificates in a secure environment, allowing the use of electronic authentication and digital signatures.[2412] ID verification takes place through mobile and QR codes, with the aid of a bot. A feature of the 'credential wallet' hosts driver's licenses, birth certificates, and other documentation. During COVID-19 the Civil ID app was also used for registration of the status and doses of vaccination.[2413]

In January 2023, the Ministry of Education (MoE) of Kuwait announced the approval by the Audit Bureau of the implementation of a 'fingerprint system' to track the attendance of teachers and school workers in government schools.[2414] Earlier, in 2019, the MoE had plans for implementing a fingerprint system for attendance in 900 public schools, to include students and teachers, "without any gender discrimination" to strengthen safety measures.[2415] The compulsory biometric attendance is set to start in the academic year 2023-2024, and is considered by MoE as a necessary action to "end the case of neglect by some teachers and school administration and preventing tampering with records."[2416] The government

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[2411] Thales, *Civil ID card in Kuwait: The key to digital government*, https://www.thalesgroup.com/en/markets/digital-identity-and-security/government/customer-cases/kuwait

[2412] Thales, *Civil ID card in Kuwait: The key to digital government*. https://www.thalesgroup.com/en/markets/digital-identity-and-security/government/customer-cases/kuwait

[2413] Paci, *Civil ID,* (2023), https://hawyti.paci.gov.kw/English/Home.aspx

[2414] Ayang Macdonald, *Kuwait picks contractor for biometric attendance system in public schools,* (Jan. 24, 2023), https://www.biometricupdate.com/202301/kuwait-picks-contractor-for-biometric-attendance-system-in-public-schools

[2415] Harish, *Kuwait makes biometric attendance mandatory in schools, English Archives,* (Apr. 17, 2019), https://englisharchives.mathrubhumi.com/news/nri/kuwait-makes-biometric-attendance-mandatory-in-schools-1.3733255

[2416] Arab Times, *Govt Schools set to implement 'Fingerprint system' from Sept,* (Jan. 22, 2023), https://www.arabtimesonline.com/news/govt-schools-set-to-implement-fingerprint-system-from-sept/#google_vignette

has already selected the contractor for the 2,770 fingerprint devices, worth US$1.1M to be installed in schools across the country.[2417]

Facial Recognition

Facial recognition mechanisms were in the plans of Kuwait Civil Aviation in 2019, [2418] but were placed "under revision" by Yousef Al-Fouzan, Director General at Kuwait's Directorate-General for Civil Aviation (DGCA). The system was designed to locate passengers' whereabouts "at all times" to offer "better airport services."

The Ministry of Oil had plans for E-Face printing to track the attendance of its employees in 2020, as part of the digital transformation roadmap and the "Oil Innovate" award competition.[2419] The Undersecretary of the Ministry of Oil, Sheikh Dr. Nimmer Al-Sabah expressed the significance of E-face printing "to facilitate and accelerate the services provided in the Ministry, raise its efficiency and reduce (the) human factor in transactions". The e-facial print would be stored in databases linked to the human resources system to track check-in and check-out times, for purposes of compliance and audit.

In 2020 the Ministry of Interior of Kuwait rejected categorically allegations of mass surveillance practices in the country, to monitor citizens' accounts on social media. The Minister set up an investigation committee to pursue the fake accounts that published leaked recordings of Kuwait's State Security.[2420]

A study by Amnesty International in 2020 of 11 countries using data tracing apps for COVID-19, including Kuwait. The study found that the "Shlonik" app was among "the most alarming tools (..) carrying out live or near-live tracking of users' locations by frequently uploading GPS coordinates to a central server (…) far beyond what is justified in efforts to

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[2417] Ayang Macdonald, *Kuwait picks contractor for biometric attendance system in public schools* (Jan. 24, 2023), https://www.biometricupdate.com/202301/kuwait-picks-contractor-for-biometric-attendance-system-in-public-schools

[2418] Mark Bowen, *Kuwait International Airport to revise plans for facial recognition technology* (July 4, 2019), https://www.intelligentcio.com/kuwait/2019/07/04/kuwait-international-airport-to-revise-plans-for-facial-recognition-technology/

[2419] The Ministry of Oil of Kuwait, *The Ministry of Oil organizes the "Oil Innovate" Award an reveals the winning teams*. [Translated to English النفط) جائزة تنظم النفط وزارة الفائزة الفرق عن وتكشف .تبتكر). (Dec 20, 2021), https://www.moo.gov.kw/single-news.aspx?par1=973

[2420] Samir Salama, *Kuwait has no mass surveillance: Interior Ministry* (Aug. 25, 2020), https://gulfnews.com/world/gulf/kuwait/kuwait-has-no-mass-surveillance-interior-ministry-1.73398576

tackle COVID-19."[2421] Conversely, a report by Privacy International in 2022, did not find Kuwait to use practices of surveillance in public spaces and use of facial recognition, as did other countries included in the study.[2422]

Smart Cities

The government of Kuwait has announced plans for Smart sustainable cities, in line with the New Kuwait 2035 Vision and the efforts towards the UN SDGs, to make "urban operations and services more efficient (…) improve traffic flow and safety (..) and much more."[2423] Kuwait's General Secretariat for the Supreme Council for Planning and Development (GSSCPD) and UNDP organized workshops in February 2020 to obtain input from public and private entities and civil society about good practices regarding the creation of eco-cities.[2424]

Lethal Autonomous Weapons

Kuwait has been an active participant of the CCW GGE Group of Governmental Experts on Lethal Autonomous Weapons, yet the country has not banned their use. [2425]

Kuwait is one of 126 High-Contracting Parties in the Convention of Certain Conventional Weapons (CCW) and endorsed Protocol I (on Certain Conventional Weapons), Amendment II, Protocol III, IV, and V.[2426]

Kuwait, as part of the Non-Aligned Movement (NAM), expressed its position against lethal autonomous weapons systems during the UN General Assembly of 2015, due to its "moral, humanitarian, and legal

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[2421] Amnesty International, *Bahrain Kuwait and Norway contact tracing apps among most dangerous for privacy,* (Jun. 16, 2020), https://www.amnesty.org/en/latest/news/2020/06/bahrain-kuwait-norway-contact-tracing-apps-danger-for-privacy/

[2422] Privacy International (PI), *Under Surveillance: (Mis)use of Technologies in Emergency Reponses. Global lessons from the COVID-19 pandemic* (Dec. 2022), https://privacyinternational.org/report/5003/under-surveillance-misuse-technologies-emergency-responses-global-lessons-covid-19

[2423] Times Kuwait, *Korean Ambassador highlights Kuwait 2035 Vision at Smart Cities Forum* (Nov. 6, 2022), https://www.securitymiddleeastmag.com/kuwait-installs-smart-traffic-cameras/

[2424] UNDP, *Eco-cities otwards the achievement of Kuwait National Development Plan (KNDP),* (Jan. 3, 2022), https://www.undp.org/kuwait/news/eco-cities-towards-achievement-kuwait-national-development-plan-kndp

[2425] Human Rights Watch, *Stopping Killer Robots.* (Aug. 10, 2020). https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and

[2426] United Nations, *High Contracting Signatories, Convention on Certain Conventional Weapons,* https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/high-contracting-parties-and-signatories-ccw/

challenges for the international community."[2427] The statement, presented during the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems Meeting in Geneva in 2022, calls for the negotiation of a "legally binding international instrument stipulating prohibitions and regulations on lethal autonomous weapons systems."[2428]

In February 2023, Kuwait participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Kuwait, together with other countries, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[2429] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[2430]

[2427] Non-Aligned Movement, *Convention on Prohibitions or Restrictions on the use of Certain Conventional Weapons which may be deemed to be excessively injurious or to have indiscriminate effects (CCW),* (Jul. 2022), https://documents.unoda.org/wp-content/uploads/2022/08/WP-NAM.pdf

[2428] Automated Decision Research, *State Positions, Kuwait,* https://automatedresearch.org/news/state_position/kuwait%ef%bf%bc/

[2429] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

[2430] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

Human Rights

        Kuwait is a signatory of the Universal Declaration of Human Rights.[2431] Kuwait has not ratified the International Covenant on Civil and Political Rights (ICCPR), the International Covenant on Economic Social and Cultural Rights (ICESCR)[2432] When the ICCPR was first issued, Kuwait had expressed reservations and observations.[2433] ICCPR's Articles 6, 7, and 13 combined forms an effective barrier to critical political discourse on the Internet, in contrast to the crucial safeguards provided by article 19 of the ICCPR.

        The Freedom House rated Kuwait as a "Partially Free" country, (37/100) in 2022; with a score of 14/40 in political rights and 23/60 in civil liberties.[2434] Amnesty International reported that Kuwait has areas to improve in relation to protecting the rights of certain groups of non-citizens.[2435] Human Rights Watch in 2022 reported that Kuwaiti authorities limit free speech and punish dissidents using sections in the penal code, national security, and cybercrime legislation, notably for remarks published on social media.[2436]

        The Transparency International's 2022 Corruption Perception Index ranks Kuwait in 77th place out of 180 countries with a score of 42/100, signifying some level of corruption.[2437] Kuwait has taken considerable steps in the past five years to fight corruption and establish key foundational policy instruments to improve the government's role in fighting corruption. Accordingly, the Kuwait Anti-Corruption Authority (NAZAHA) was set up as an independent public authority to combat corruption under Law No. 2 of 2016, including the development of the NAZAHA governance framework.

        The Government of Kuwait supports and promotes the right of peoples to self-determination (Guideline # 2), as well as international and regional resolutions that uphold this right, on the understanding that it is a

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[2431] OHCHR, *Human rights by Country,*
https://www.ohchr.org/en/countries/menaregion/pages/kwindex.aspx
[2432] Ibid.
[2433] Human Rights Watch, *Kuwait's Reservations to the ICCPR*,
https://www.hrw.org/reports/2000/kuwait/kuwait-03.htm
[2434] Freedom House, *Freedom in the World- Kuwait,*
https://freedomhouse.org/country/kuwait/freedom-world/2022
[2435] Amnesty International, *Systematic Human Rights Violations in the State of Kuwait,*
https://www.amnesty.org/en/location/middle-east-and-north-africa/kuwait/report-kuwait/
[2436] Human Rights Watch, *Country Chapter Kuwait*, https://www.hrw.org/world-report/2022/country-chapters/kuwait
[2437] Transparency International, *Corruption Perceptions Index* (2022),
https://www.transparency.org/en/cpi/2022/index/kwt

"fundamental right that cannot be suppressed by any means or under any circumstances."[2438] Kuwait's Public Authority for Anti-Corruption (Nazaha) formulated the Kuwait Integrity and Anti-corruption strategy (KIACS) 2024;[2439] a comprehensive document that aligns with the new Kuwait Vision 2035. The KIACS has a focus on Sustainable Development Agenda (SDGs) 2030 and The United Nations Convention against Corruption, to promote the rule of law, promote accountability (#5 Assessment and Accountability Obligation).

OECD / G20 AI Principles

Kuwait is not a member of the OECD and has not endorsed[2440] the OECD AI Principles of 2019.[2441] Kuwait has not submitted reports to the OECD AI Policy Observatory in relation to ongoing policies, strategies, or activities associated with AI.[2442]

Kuwait is a member of the MENA-OECD Initiative on Governance and Competitiveness created in 2021 to implement reforms to (...) improve (...) governance structures and cooperation.[2443] The MENA-OECD Initiative has a focus on welfare, stability, and socio-economic security for all citizens, gender equality, and transparency, but does not address AI specifically.

In a review by OECD about Innovation policies in Kuwait,[2444] findings point to areas where the country is lagging behind in the region.

[2438] Right of peoples to self-determination, https://www.un.org/unispal/document/auto-insert-178762/#:~:text=The%20Government%20of%20Kuwait%20supports,means%20or%20under%20any%20circumstances%E2%80%9D.

[2439] Nazaha, Public Authority of Anti-corruption*, Kuwait Strategy for Integrity and Anti-corruption* (2019), https://www.nazaha.gov.kw/EN/DocLib/Kuwait%20Integrity%20and%20Anti-Corruption%20Strategy.pdf

[2440] OECD, *Forty-two countries adopt new OECD Principles on Artificial Intelligence* (May 25, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[2441] OECD, *Recommendation of the Council on Artificial Intelligence,* OECD/LEGAL/0449 (May 22, 2019), https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449

[2442] OECD.AI, *Country Dashboards and Data* (2023), https://oecd.ai/en/

[2443] OECD, *MENA-OECD Initiative. Governance & Competitiveness Development*, 2021 Ministerial Conference, https://www.oecd.org/fr/sites/mena/Ministerial-Declaration-2021.pdf

[2444] OECD, *Reviews of Innovation Policy: Kuwait 2021. Section 3.5.1 the Implementation of Kuwait's national development plan*s, https://www.oecd-ilibrary.org/sites/49ed2679-en/1/3/3/index.html?itemId=/content/publication/49ed2679-

Policies to promote science, technology, and innovation policies were either partially implemented or not implemented at all.

UNESCO Recommendation on the Ethics of Artificial Intelligence

Kuwait is a UNESCO member since 1960[2445] and is one of the 193 member states endorsing the Recommendations on the Ethics of AI.[2446] Kuwait had a leading position in this process, chairing the UNESCO Intergovernmental committee that approved the AI code of ethics in 2021.[2447] The committee included 300 experts, 102 countries, and 49 observers. Ambassador Adam Al Mulla, Permanent Representative of Kuwait to UNESCO highlighted the importance of the UNESCO Recommendation as a negotiated effort to reach a framework of international and national policies "to ensure that Artificial Intelligence benefits society as a whole".

In 2021, UNESCO launched the Guidance for Policy Makers in the Gulf States with a forum to discuss AI policy with representatives from Kuwait and other five Arab states.[2448] The UNESCO event was a key engagement in the region that aimed to "initiate the conversation on the possibility of developing national policies in AI." Following this effort, in a 2022 statement, Kuwait University called all university units to activate the UNESCO recommendation in their current and future applications.[2449]

Kuwait is an example in the Arab region of engagement in the promotion of the UNESCO Recommendations. In October of 2022, Kuwait along with other 8 countries (Cook Islands, Liberia, Libya, Morocco, Netherlands, Oman, Saudi Arabia, and Togo) requested the inclusion of an item to the agenda of the Preparatory Group of the 215th Executive Board on Implementation of the Recommendation on the Ethics of Artificial Intelligence. [2450].. Kuwait Ambassador Mr. Al Adam Al Mulla was elected

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en&_csp_=541f929e70ac0c521b6d3dae9c4894f4&itemIGO=oecd&itemContentType=book#section-d1e8574

[2445] UNESCO, *Kuwait,* https://en.unesco.org/countries/kuwait

[2446] UNESCO, *UNESCO Member States Adopt the First Ever Global Agreement On the Ethics Of Artificial Intelligence* (Nov. 25, 2021), https://en.unesco.org/news/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence.

[2447] KUNA,.. *Kuwait-Chaired UNESCO committee approves AI code of ethics* (June 25, 2021), https://www.kuna.net.kw/ArticleDetails.aspx?id=2985239&Language=en

[2448] UNESCO, *AI and education: guidance for policy-makers: regional launch for Gulf States* (2021), https://unesdoc.unesco.org/ark:/48223/pf0000376709.locale=en

[2449] Times Kuwait, *KU calls on all sectors to actívate ethics of artificial intelligence* (May 11, 2022), https://timeskuwait.com/news/ku-calls-on-all-sectors-to-activate-ethics-of-artificial-intelligence/

[2450] Twitter Post by Ambassador Adam Al Mulla (Sept. 22, 2022), https://twitter.com/KuwaitUNESCO/status/1573016924031782912

Chair of The Group of Friends of the Implementation of the Recommendation on the Ethics of Artificial Intelligence. The Group of Friends of the Implementation of the Recommendation on the Ethics of AI seeks to set a program that includes: (1) Elaboration of capacity-building tools and methodologies aligned to the Policy action 1: Ethical Impact Assessment, Monitoring and Evaluation. (2) Global Forum on Ethics of Artificial Intelligence, (3) Establishment of the Global Observatory of AI Ethics, (4) Assisting Member States in building strong national institutions for promoting AI ethics, (5) Establishment, facilitation, and management of expert networks, such as the AI Ethics Experts without Borders (AIEB), Global Network of Knowledge Centers on Ethics of AI, Women on Ethical AI Network (W4ethicalAI).[2451]

Evaluation

Kuwait's formulation of the New Kuwait Vision 2035 harnesses the efforts to lead in digital transformation. The country is in the nascent stages of policy formulation that supports the adoption of responsible AI. The fairly high position of Kuwait in AI readiness in the region indicates the potential impact that governance of AI could have to propel the country's responsible innovation. Kuwait's active leadership of the UNESCO Group of Friends and the former Chairmanship of the committee that drafted the Recommendations for AI are positive steps that need to be translated at the national level by the formulation of a national AI strategy. Kuwait has a fairly formalized system for public information and consultation, and this could be leveraged to promote participation in trustworthy AI policy formulation. Governance and oversight are areas of opportunity for growth for Kuwait as documented by multiple international governance ranking systems. The modernization of Kuwait's data protection legal regime would also allow to ease concerns with regard to surveillance practices happening in a legal vacuum.

[2451] UNESCO, *Implementation of the Recommendation on the Ethics of Artificial Intelligence* (2022), https://unesdoc.unesco.org/ark:/48223/pf0000382931

Lithuania

National AI Strategy

In 2019, the Ministry of Economy and Innovation released Lithuania's national AI strategy. "The Lithuanian Artificial Intelligence Strategy: A Vision of the Future seeks to communicate the current position and future strategic vision of the Republic of Lithuania in regard to artificial intelligence." It includes strategic recommendations for government consideration. The AI Strategy outlines four principles for ethical development and the use of AI and associated mechanisms to achieve those goals. The National AI strategy sets an objective of advising the public sector on ethical AI regulation and implementation, by suggesting the creation of an AI ethics committee, in addition to developing mechanisms for obtaining feedback from the public on AI regulations. Other principles include:

- Securing trust in AI regulations
- Encouraging transparency and fairness
- Encouraging ethics by design.

The national strategy also acknowledges the significance of developing new skills suited for societal transformations brought by AI, strengthening AI research and development. The ethical and legal principles for the development of AI strategy implementation methods are outlined in the AI strategy.[2452]

The Strategy acknowledges both the 2018 EU coordinated plan on AI whose goal is "for Europe to become the world-leading region for developing and deploying cutting-edge, ethical and secure AI, promoting a human-centric approach in the global context" and the 2019 AI ethics guidance issued by the EU High Level Expert Group on AI which "should serve as starting point for the discussion for ethical AI." Key topics addressed by the Lithuanian national strategic plan include: "Ethical and legal core principles for the development and use of AI"; "Integration of AI systems across all economic sectors;" "national development of skills and competencies needed for a future with AI"; "Growth of AI research and development" and "a responsible and efficient approach to data."[2453]

The national strategy acknowledges, "Having the capability to generate tremendous benefits for individuals and society, AI also gives rise

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[2452] Ministry of The Economy and Innovation, Lithuania Artificial Intelligence Strategy (Apr. 2019), https://eimin.lrv.lt/uploads/eimin/documents/files/DI_strategija_ENG(1).pdf
[2453] Ministry of The Economy and Innovation, Lithuania Artificial Intelligence Strategy (Apr. 2019), https://eimin.lrv.lt/uploads/eimin/documents/files/DI_strategija_ENG(1).pdf

to certain risks that should be properly managed. Given that, on the whole, AI's benefits outweigh its risks, we must ensure to follow the road that maximizes the benefits of AI while minimizing its risks. To ensure that we stay on the right track, a human-centric approach to AI is needed. Trustworthy AI has two components: (1) ethical purpose - it should respect fundamental rights, applicable regulation and core principles and values and (2) it should be technically robust and reliable since, even with good intentions, a lack of technological mastery can cause unintentional harm." Accordingly, the national strategy identifies four key principles:

- To advice the public sector on ethical AI regulation and implementation. For this, the establishment of an AI ethics committee that monitors the impact of AI on fundamental rights is recommended. This committee "should include representatives from academia, government, industry and NGO sector. The Committee should provide (independently created) short and long-term analysis and recommendations" which "should be used to create and update existing ethical standards in Lithuania." The national strategy also suggests to "develop feedback mechanisms for societal input on regulations created by the public administration" and the "Government should recognize citizens' "understanding of AI as a new civic skill.""

- To establish trust in rules, laws and norms that governs AI. Among others, the strategy identifies that "Lithuania needs to develop rules, standards, guidelines, norms and ethics principles in order to guide ethical and sustainable development of AI and use of AI. Lithuania needs to work for Lithuanian, European and international standards and regulations that promote the use of AI and prevent risks." Lithuania also "needs additional investments to advance AI safety and security, including explainability and transparency, trust, verification and validation, security against attacks, and long-term AI safety and value-alignment."

- To encourage transparency and fairness in AI applications. The national strategy states that "AI applications should be ethical, safe, reliable and transparent." Research to minimize bias in AI systems should be supported and the government should facilitate the creation of "a national interdisciplinary center on AI to promote discussions surrounding the ethics of AI." The strategy also notes, "Many algorithms, including those based on deep learning, are opaque to users ; thus; Lithuania needs to establish the safeguarding mechanism that researchers would develop systems that are

transparent, and intrinsically capable of explaining the reasons for their results to users."
- To encourage ethics by design. According to the strategy, this can be achieved by developing educational programmes which discuss the ethical implications of technology and "facilitate society-wide discussion" in this regard.

In 2022, Lithuania issued its AI development activity plan 2023-2026.[2454] The plan sets three main objectives: improve the conditions for the development of the AI ecosystem, increase the use of AI across both public and private sectors and create the necessary conditions for AI innovation.

Nordic-Baltic Cooperation on AI

As for the international landscape, the Lithuanian minister responsible for digital development signed the 2018 declaration on "AI in the Nordic-Baltic region" establishing a collaborative framework on "developing ethical and transparent guidelines, standards, principles and values to guide when and how AI applications should be used" and "on the objective that infrastructure, hardware, software and data, all of which are central to the use of AI, are based on standards, enabling interoperability, privacy, security, trust, good usability, and portability."[2455]

The ministerial declaration Digital North 2.0[2456] builds on the common priorities of the Nordic-Baltic countries, and follows the previous ministerial declaration, Digital North 2017-2020. "In order to promote work with digitalisation, co-ordinate efforts, and follow up on the goals of the declaration, a council of ministers for digitalisation (MR-DIGITAL) was established in 2017. The aim is to promote development in three areas: (1) Increase mobility and integration in the Nordic and Baltic region by building a common area for cross-border digital services; (2) Promote green economic growth and development in the Nordic-Baltic region through data-driven innovation and a fair data economy for efficient sharing and re-use of data; and (3) Promote Nordic-Baltic leadership in the EU/EEA and

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[2454] Renata Liubinavičė, and Gabija Žemaitytė, *Lietuvos dirbtinio intelekto technologijų plėtros veiksmų planas 2023-2026* (Aug. 2022), http://kurklt.lt/wp-content/uploads/2022/09/DI-pletros-veiksmu-planas.pdf
[2455] Nordic and Baltic Ministers of Digitalization, *AI in the Nordic-Baltic region* (May 14, 2018), https://www.norden.org/en/declaration/ai-nordic-baltic-region
[2456] Nordic and Baltic Ministers of Digitalization, *Ministerial Declaration Digital North 2.0* (Sept. 29, 2020), https://www.norden.org/en/declaration/ministerial-declaration-digital-north-20

globally in a sustainable and inclusive digital transformation of our societies."[2457]

In November 2021, the Nordic and Baltic ministers for digitalization released another joint statement announcing a focus on digital inclusion, striving to implement measures to make digital services more accessible to all Lithuanian inhabitants and ensuring that those who do not possess the necessary level of skills get the opportunity to acquire them. [2458]

In September 2022, the Nordic and Baltic ministers for digitalization issued a common statement on the importance of cooperation on digital security in the Nordic-Baltic region following the COVID-19 pandemic and the war in Ukraine. In their common statement, the ministers stressed that this "rapid transformation has challenged everyone to adapt to new, digital ways of doing business, learning and accessing public authorities." The ministers declared that they "have committed to ensuring that our region maintains its position as a leader in digitalisation, and that everyone in the region benefit from digitalisation regardless of age, wealth, education or level of digital skills. One important factor that helps ensure a strong level of digitalisation in the region is the trust citizens put in digital services from the public sector – be it at regional, national or local level. In order to keep up this high level of trust, we need to continue our efforts to make our digital public services human centric and accessible. (…) Robust and secure digital services, safeguarding users' privacy and ensuring that personal data are stored and processed in a trustworthy way, are crucial to the citizens' sustained trust in digital services."[2459]

Public Participation

The national strategy was elaborated by the Ministry of Economy in consultation with an advisory group "of expert representatives from the private sector and academia."[2460] Lithuania's Agency for Science, Innovation and Technology (MITA) outlined that one of the principles in

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[2457] Nordic Co-operation, *Nordic-Baltic co-operation on digitalisation*, https://www.norden.org/en/information/nordic-baltic-co-operation-digitalisation

[2458] Nordic and Baltic Ministers of Digitalization, *Common statement on the importance of promoting digital inclusion as a central part of the digital transformation in the Nordic-Baltic region* (Nov. 26, 2021), https://www.norden.org/en/declaration/common-statement-importance-promoting-digital-inclusion-central-part-digital

[2459] Nordic and Baltic Ministers of Digitalization, *Common statement on the importance of cooperation on digital security in the Nordic-Baltic region* (Sept. 6, 2022), https://www.norden.org/en/declaration/common-statement-importance-cooperation-digital-security-nordic-baltic-region

[2460] Ministry of The Economy and Innovation, Lithuania Artificial Intelligence Strategy (Apr. 2019), https://eimin.lrv.lt/uploads/eimin/documents/files/DI_strategija_ENG(1).pdf

shaping the 2019 Lithuanian AI strategy would be to consult the public with regard to ethical AI regulation and implementation with a view to promote the transparent and fair use of AI.[2461] Yet, on the centralized public consultation platform run by the Government of Lithuania, no public consultation on AI could be found.[2462]

The MITA has a section on their website on monitoring regulatory developments, yet the page has not been updated since October 2018.[2463]Even if platforms for public participation exist,[2464] a centralized website dedicated to AI policies and practices has not been created.

The AI development activity plan 2023-2026[2465] provides for an action item dedicated to "activities for setting dialogue with the society on questions of ethical AI and the social implications of the use of AI systems" (action item 1.5.3.). Yet, the action committee in charge of the implementation of the AI development plan is to consult involved parties and NGOs, with the omission of the public at large (action item 1.5.1.).

Data Protection

Since Lithuania is an EU Member State, the General Data Protection Regulation (GDPR)[2466] is directly applicable in Lithuania and to Lithuanians. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[2467] The GDPR entered

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[2461] Mita, *Lietuvos Dirbtinio Intelekto Strategija: Ateities Vizij* (2018), https://mita.lrv.lt/uploads/mita/documents/files/Markas%20Mongirdas.pdf

[2462] Mano vyriausybė, *E. pilietis - erdvė visuomenės ir valdžios dialogas* (2018) https://epilietis.lrv.lt/lt/paieska?query=dirbtinis+intelektas&search=%C2%A0&module%5B%5D=Consultations&email=

[2463] Mita, *Teisinio Reguliavimo Stebėsena* (2018), https://mita.lrv.lt/lt/teisine-informacija/teisinio-reguliavimo-stebesena

[2464] Mano vyriausybė, *E. pilietis - erdvė visuomenės ir valdžios dialogas* (2018), https://epilietis.lrv.lt/lt/paieska?query=dirbtinis+intelektas&search=%C2%A0&module%5B%5D=Consultations&email=

[2465] Renata Liubinavičė, and Gabija Žemaitytė, *Lietuvos dirbtinio intelekto technologijų plėtros veiksmų planas 2023-2026* (Aug. 2022), http://kurklt.lt/wp-content/uploads/2022/09/DI-pletros-veiksmu-planas.pdf

[2466] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

[2467] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

into force on 24 May 2016 and applies since 25 May 2018. The Law on Legal Protection of Personal Data was amended in July 2018 to adapt to the requirements of the GDPR.[2468]

Regarding the activities of law enforcement authorities, the Law on Legal Protection of Personal Data, Processed for the Purposes of Prevention, Investigation, Detection or Prosecution of Criminal Offences, or the Execution of Criminal Penalties, or National Security, or Defence[2469] transposed the EU Data Protection Law Enforcement Directive (LED).[2470] "The directive protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[2471] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[2472] The LED also requires for Member States, including Lithuania, to enable data subjects to exercise their rights via national data protection authorities.[2473]

"Consistency and a high level of protection among Member States is key in order to ensure effective judicial cooperation in criminal matters and police cooperation. The LED provides for the European Data Protection Board (EDPB) [of which the Lithuanian data protection authority is a member] to issue guidelines, recommendations and best practices (on its own initiative or at the Commission's request) in order to ensure that the

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[2468] *Law of the Republic of Lithuania on Legal Protection of Personal Data*, https://vdai.lrv.lt/en/legislation

[2469] *Law of the Republic of Lithuania on Legal Protection of Personal Data, Processed for the Purposes of Prevention, Investigation, Detection or Prosecution of Criminal Offences, or the Execution of Criminal Penalties, or National Security, or Defence* (July 7, 2018), https://vdai.lrv.lt/en/legislation

[2470] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[2471] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[2472] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[2473] Article 17 of the LED.

Member States apply the LED consistently."[2474] The EDPB has produced guidelines on the use of facial recognition technologies in the area of law enforcement.[2475] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[2476]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Lithuania is also a member of the Council of Europe and ratified the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[2477]

The State Data Protection Inspectorate[2478] (Inspectorate) is the main national supervisory authority in Lithuania. When data processing relates to journalistic, academic, artistic or literary expression, the Inspector of

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[2474] Communication from the Commission to the European Parliament and the Council, *First report on application and functioning of the Data Protection Law Enforcement Directive (EU) 2016/680 ('LED')*, COM/2022/364 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0364&qid=1658824345764#footnote136

[2475] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

[2476] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

[2477] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[2478] State Data Protection Directorate, *State Data Protection Directorate* (2023), https://vdai.lrv.lt/en/

Journalist Ethics (Inspector)[2479] has a similar mission to that of the Inspectorate. The Inspector while on duty cooperates with the Inspectorate to ensure compliance with the GDPR.

Despite being a member of the Global Privacy Assembly (GPA) since 2002, the IMY has not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence;[2480] the 2020 GPA Resolution on AI Accountability;[2481] or the 2022 GPA Resolution on Facial Recognition Technology.[2482]

Algorithmic Transparency

Lithuania is subject to the GDPR and Convention 108+. Lithuanians have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[2483]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[2484] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private

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[2479] The Office of the Inspector of Journalistic Ethics, *The Office of the Inspector of Journalistic Ethics* (2023), https://zeit.lt/en

[2480] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[2481] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[2482] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[2483] See Recital 63 and Article 22 of the GDPR. Article 9 c) of the Convention 108+ as well as Recital 77, *Explanatory Report, Convention 108+*, p. 24, https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1

[2484] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[2485]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[2486]

COVID-19 Tracking App

In spring 2020, the DPA started monitoring activities in response to information in the media about the possible improper processing of personal data by application "Karantinas". After an assessment of the initial information, the Inspectorate decided to open an investigation and suspend the processing of personal data by the application. The study revealed that data from 677 individuals had been collected since April 2020 when the application became operational. The App concerned processed personal data using new technology as well as a systematic monitoring of data subjects in self-isolation. The App also aimed to process large datasets (data subjects throughout Lithuania and abroad). The processing was intended to be continuous and vulnerable data subjects were concerned.

In February 2021, the Inspectorate imposed a EUR 12,000 fine on the National Public Health Centre (NPHC) and the developer of the

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[2485] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154
[2486] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

application UAB *IT sprendimai sėkmei* for infringements of the GDPR. "When deciding on the imposition of the administrative fine and its amount, the DPA took into account the fact that the NHPC and the Company processed personal data intentionally, to a large extent, illegally, systematically, without providing technical and organizational means to demonstrate compliance with the requirements of the GDPR while processing personal data, and also processed special category personal data. In addition, the Company did not comply with the DPA instructions to stop the processing of personal data collected with the help of the app and deleted part of the personal data."[2487]

Lethal Autonomous Weapons

Lithuania was one of the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[2488]

In February 2023, Lithuania participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Lithuania endorsed a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[2489] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security,

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[2487] European Data Protection Board, Lithuanian DPA issues EUR 12,000 fine for infringements of the General Data Protection Regulation in application "Karantinas" (Quarantine) (March 29, 2021), https://edpb.europa.eu/news/national-news/2021/lithuanian-dpa-issues-eur-12000-fine-infringements-general-data-protection_en

[2488] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[2489] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[2490]

Human Rights

Lithuania adopted the United Nations Declaration on Human Rights in 1998. As a member of the European Union and of the Council of Europe, Lithuania is committed to upholding the EU Charter of Fundamental Rights and the European Convention on Human Rights. According to Freedom House, Lithuania is considered "Free".[2491]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[2492]

[2490] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[2491] Freedom House, *Freedom in the World 2022 Country Report* (2022), https://freedomhouse.org/country/lithuania/freedom-world/2022

[2492] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

OECD / G20 AI Principles

Lithuania is a member of the OECD and endorsed the OECD AI Principles in May 2019.[2493] The main principles of the Lithuanian AI strategy overlap with OECD AI principles. Some public sector initiatives and academic sector initiatives can be seen on the OECD AI monitoring platform.[2494]

Lithuania is not a member of the Global Partnership on AI, a multi-stakeholder initiative which aims to foster international cooperation on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[2495]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Lithuania was among the 193 countries that actively supported UNESCO's efforts in drafting and adopting its Recommendations on AI Ethics.[2496] According to the Ministry of Foreign Affairs of the Republic of Lithuania, Lithuania has been committed to supporting and implementing the UNESCO Recommendation. In addition, the advancement and implementation of ethical principles for AI were among the priorities that Lithuania presented to UNESCO for its candidacy to the Executive Board 2021-2025.[2497]

Evaluation

Lithuania has endorsed the OECD AI principles and the UNESCO Recommendation on the Ethics of AI, set a national AI strategy in 2019 and launched its AI Development Action Plan in August 2022. As a Member State of the European Union, Lithuania enforces strong data protection laws while rules for high-risk applications will be set as per the EU AI Act. It remains to be seen which measures Lithuania will take to supplement the EU AI Act.

[2493] OECD, *OECD Legal Instruments* (May 2019),
https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449
[2494] OECD, OECD.AI Policy Observatory (2023),
https://oecd.ai/en/dashboards/countries/Lithuania
[2495] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/
[2496] UNESCO Lietuvos nacionalinė UNESCO komisija, *Ethics and philosophy* (2013), https://unesco.lt/science/ethics-and-philosophy
[2497] UNESCO, National Statement of Lithuania, (November 2021),
https://www.unesco.org/sites/default/files/medias/fichiers/2021/11/10112021_am_lithuania_eng_41_v0.pdf

Even if the role of public participation is acknowledged, Lithuania has room for improvement in expanding public participation beyond NGOs to include the public. Setting centralized websites outlining public participation opportunities and ongoing AI-related legislative process and legislation is another opportunity for improving public participation and oversight.

Luxembourg

National AI Strategy

        The Luxembourg Strategic Vision for Artificial Intelligence (2019) was presented in 2019 by the Prime Minister of Luxembourg, who was also Minister for Digitalisation, together with the Minister of Economy. The strategy has 3 objectives: for Luxembourg (1) to be among the most advanced digital societies in the world, especially in the EU; (2) to become a data-driven and sustainable economy; and (3) to support human-centric AI development.[2498]

        The Strategic Vision is based on a human-centered approach to AI whereby human intelligence should be "in charge" of AI and individuals should be at the center of all services based on AI. Luxembourg commits to the respect of the 2019 Ethics Guidelines for Trustworthy AI formulated by the EU High-Level Expert Group on Artificial Intelligence.[2499] The Luxembourgish government commits to adopt policies to tackle the difficulties that could be caused by the mainstreaming of AI technologies and underlines that this mainstreaming should be aimed to the improvement of the citizens' daily lives, keeping in mind that AI was not just created by humans, but for humans as well. For this reason, Luxembourg commits to transparent, understandable and trustworthy AI for all the people who live, invest and work in Luxembourg.[2500]

        The Strategy also underlines the need for a regulation of the use and management of data which is respectful of fundamental ethical principles and confidentiality and which allows for reaching the full potential of the use of data in the economic and social domains.[2501] The Strategy includes key actions to ensure the protection of fundamental rights:

- collaborating with the data protection authority and leveraging its expertise in order to address AI-related questions
- creating a consultative committee specialized in technology and ethics to debate the ethical consequences of technologies and advise the government on potential risks and societal impacts. The Committee was effectively created in 2020.
- collaborating with the private sector to develop a proper corporate governance regarding AI,

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[2498] The Government of Luxembourg; Digital Luxembourg, *Artificial Intelligence: a strategic vision for Luxembourg* (May 2019), p. 5, https://digital-luxembourg.public.lu/sites/default/files/2020-09/AI_EN_0.pdf
[2499] Ibid., p.7.
[2500] Ibid., p. 9.
[2501] Ibid., p. 6.

- working with the Institute of Standardization, Accreditation, Safety and Quality of Products and Services (ILNAS) to actively follow the regulatory processes of products and services in the framework of the ISO system.
- putting in place innovative technologies to reinforce data protection in view of machine learning.[2502]

    The Strategy takes into account how AI can foster investments and strategic partnerships, the efficiency of public services, the need to integrate AI in the context of life-long learning, attraction of talents, education, planning, and how to integrate the efforts of Luxembourg in the context of European integration.

    The Strategy foresees 3 main domains of application for AI in Luxembourg:

- The private sphere: daily activities, routine activities in order to gain time, receive high quality assistance and ensure data protection.
- The professional sphere: participation to the diversified economy of Luxembourg in order to increase job opportunities, new revenue streams and skills training.
- The public sphere: access to governmental services and relations with the administration (e-health, education, finance).[2503]

Luxembourg's Strategic Vision for AI has led to the creation of an AI4Gov inter-ministerial committee, whose members represent the Ministry for Digitalisation, the Communications and Media Service (SMC) and the Information and Press Service (SIP). The inter-ministerial coordination group, under the leadership of the Prime Minister, set up a governance mechanism to continuously follow up on strategic initiatives that support Luxembourg's AI development. It is tasked with regularly assessing the strategic vision and setting up a framework for future actions.[2504]

    The aim of the AI4Gov Committee is also to encourage ministries and administrations to make use of AI and data science to transform their actions and tasks.[2505] The open data pledge of the national strategy has already been implemented in 2016 at data.public.lu[2506] and has been further filled since

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[2502] Ibid., pp. 14-15.
[2503] Ibid., p.10.
[2504] European Commission, https://ai-watch.ec.europa.eu/countries/luxembourg/luxembourg-ai-strategy-report_en
[2505] Luxembourg Government, https://gouvernement.lu/en/dossiers.gouv_digitalisation%2Ben%2Bdossiers%2B2021%2BAI4Gov.html
[2506] https://data.public.lu/en/

then. This portal enables accessible sourcing of public-sector data, open to public and private producers and reusers of data.

The strategic vision for Luxembourg endorses the Ethics Guidelines for Trustworthy AI of the High-Level Expert Group on AI of the European Commission, as well as the Coordinated Plan on Artificial Intelligence by the European Commission. Further endorsements concerning the risks of AI to Fundamental Human Rights are not addressed in the Strategy.

The Strategic Vision is part of "Digital Luxembourg," a broader policy strategy which aims to coordinate and strengthen Luxembourg's transformation into a solid digital society.[2507]

In 2019, the Ministry of Economy adopted the report "Data-Driven Innovation Strategy for the Development of a Trusted and Sustainable Economy in Luxembourg", which is interconnected with the National AI Strategy's provisions.[2508] The Innovation Strategy is based on a vision of a Luxembourg data-driven economy, where AI systems, combined with the Internet of Things components, systems, and networks, HPC, and Big Data analytics are used "to drive future growth". The components of this Strategy include:

- Boosting and assuring digital infrastructure capacity
- Experimenting, innovating, and up-take of new advanced digital technologies into industry
- Ensure a strong regulatory, intellectual property, investment and financing environment.

The priority sectors for such data driven-innovation were defined in the 2018 Luxembourg coalition agreement and include, among others, logistics, financial services, health- and eco-tech.[2509]

In October 2020, the government of Luxembourg, along with thirteen other EU Member States, published a position paper on innovative and trustworthy AI. This paper sets out two visions for the EU's development of AI: (1) promoting innovation, while managing risks through a clear framework and (2) establishing trustworthy AI as a competitive advantage. The countries call for a borderless single market for AI in the EU. They state that "[t]he main aim must be to create a common

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[2507] European Commission, https://ai-watch.ec.europa.eu/countries/luxembourg/luxembourg-ai-strategy-report_en
[2508] _The Data-Driven Innovation Strategy for the Development of a Trusted and Sustainable Economy in Luxembourg_ (2019), https://gouvernement.lu/en/publications/rapport-etude-analyse/minist-economie/intelligence-artificielle/data-driven-innovation.html
[2509] Les partis de la coalition DP, LSAP et déi gréng, _Accord de coalition 2018-2023_ (2018), https://gouvernement.lu/fr/publications/accord-coalition/2018-2023.html

framework where trustworthy and human-centric AI goes hand in hand with innovation, economic growth, and competitiveness to protect our society, maintain our high-quality public service, and benefit our citizens and businesses. This can help the EU to protect and empower its citizens, stimulate innovation and progress in society, and ensure its values are protected."[2510]

Standardization

In a 2021 white paper written in collaboration with the Agency for Standardization and the Knowledge Economy (ANEC), the ILNAS highlighted the importance of standardization for AI adoption.[2511] The ILNAS actively participated in the development of the ISO/IEC JTC1/SC 42, which includes several foundational, data, trustworthiness, use case and applications, as well as governance standards for AI and machine learning. ILNAS and ANEC are also involved in other standardization activities in cooperation with ITU-T, IEEE, ETSI and CEN-CENELEC while acknowledging that "privacy, security, and safety of the end users must be kept in mind by developers and legislators". The white paper explores the advancement and focus on AI from the existing National Standardization Strategy 2020-2030 (Stratégie Normative Luxembourgeoise 2020-2030).[2512]

Public participation

The National AI Strategy evolved from a project initiated by the Government of the Grand Duchy of Luxembourg and Digital Luxembourg to a "multidisciplinary government initiative working with public, private

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[2510] *Non-paper - Innovative and trustworthy AI: two sides of the same coin, Position paper on behalf of Denmark, Belgium, the Czech Republic, Finland, France, Estonia, Ireland, Latvia, Luxembourg, the Netherlands, Poland, Portugal, Spain and Sweden on innovative and trustworthy AI* (2020), https://www.permanentrepresentations.nl/documents/publications/2020/10/8/non-paper---innovative-and-trustworthy-ai

[2511] Institut Luxembourgeois de la Normalisation, de l'Accréditation, de la Sécurité et qualité des produits et services; Agence pour la Normalisation et l'Économie de la Connaissance, *White Paper. Artificial Intelligence. Technology, use cases and applications, trustworthiness and technical standardization. Version 1.1* (Feb. 2021), https://portail-qualite.public.lu/dam-assets/publications/normalisation/2021/ilnas-white-paper-artificial-intelligence.pdf

[2512] Institut Luxembourgeois de la Normalisation, de l'Accréditation, de la Sécurité et qualité des produits et services, *Stratégie Normative Luxembourgeoise 2020-2030* (Jan. 2020), https://portail-qualite.public.lu/fr/publications/normes-normalisation/avis-officiels/strategie-normative-luxembourgeoise-2020-2030.html

and academic players to harness digitalization for positive transformation."[2513]

The Government of Luxembourg committed to a public consultation on AI policy in Q3 of 2020. The public consultation was answered by 20,000 randomly selected participants. Top consultation results include:[2514]

- Over 80% of the public thinks that the state needs a data ethics committee
- When asked which sector they trusted most with data and AI, the public sector won with 77% of respondents voicing a high or very high level of trust
- 70% of respondents believe that AI can help them with tasks in their daily lives
- 73% of people use digital tools for public sector tasks (online payments, MyGuichet.lu, etc.). Coming in second was mobility (Google Maps, Waze, etc.)
- More than 70% of respondents are in favor of full-scale, AI-based trials, such as Luxembourg's digital twin project.[2515]

Currently no public consultations are open for submissions. However, Digital Luxembourg supports and powers several initiatives that are open to public participation.

Data protection

Since Luxembourg is an EU Member State, the General Data Protection Regulation (GDPR)[2516] is directly applicable in Luxembourg and to Luxembourgers. The aim of the GDPR is to "strengthen individuals'

[2513] The Government of Luxembourg *Digital Luxembourg. Innovative Initiatives*, https://gouvernement.lu/en/dossiers/2014/digital-letzebuerg.html

[2514] Digital Luxembourg website, *Results are in: Here's what the public thinks about AI* (2021), https://digital-luxembourg.public.lu/stories/results-are-heres-what-public-thinks-about-ai; Nicolas Poussing, Luxembourg Institute of Socio-Economic Research, *Résultats de la consultation publique relative aux opportunités et aux défis de l'Intelligence Artificielle* (Apr. 2021), https://smc.gouvernement.lu/dam-assets/Rapport-IA6-final.pdf

[2515] Luxembourg Digital Twin initiative was lanched in 2021, see Research Luxembourg, *Meet Luxembourg Digital Twin* (July 22, 2021), https://www.researchluxembourg.org/en/meet-luxembourg-digital-twin/
This project is also linked to Luxembourg Metaverse initiative, launched in 2022, and partly funded by the National Research Fund (FNR). See initiative's website: https://www.luxembourgmetaverse.com/

[2516] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[2517] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018. The Act of August 1, 2018 on the organization of the National Data Protection Commission and the general data protection framework supplements the GDPR.

Regarding the activities of law enforcement authorities, Luxembourg transposed the EU Data Protection Law Enforcement Directive (LED)[2518] with the Act of August 1, 2018 on the protection of individuals with regard to the processing of personal data in criminal and national security matters. "The directive protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[2519] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[2520] The LED also requires for Member States, including Luxembourg, to enable data subjects to exercise their rights via national data protection authorities.[2521]

The National Data Protection Commission (CNPD) is in charge of enforcing rights related to both the GDPR and the LED. To ensure better compliance with GDPR, in May 2022, the CNPD adopted the GDPR-CARPA certification mechanism for companies, public entities and other organizations established in Luxembourg.[2522] In October 2022, the CNPD

[2517] European Commission, *Data protection in the EU*,
https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[2518] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*,
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[2519] European Commission, *Data protection in the EU*,
https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[2520] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[2521] Article 17 of the LED.

[2522] European Data Protection Board, *The CNPD adopts the certification mechanism GDPR-CARPA* (June 27, 2022), https://edpb.europa.eu/news/national-news/2022/cnpd-adopts-certification-mechanism-gdpr-carpa_en

accredited a first entity, EY PFS Solutions, in the framework of GDPR-CARPA, giving it the right to issue GDPR certifications.[2523]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Luxembourg is also a member of the Council of Europe. The country signed but has not yet ratified[2524] the Council of Europe's modernized version of Convention 108 for the protection of individuals with regard to the processing of personal data.[2525]

Algorithmic Transparency

Although it has not yet ratified the Protocol amending the Convention 108 which provides for algorithmic transparency, Luxembourg is subject to the GDPR. Luxembourgish have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[2526]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[2527] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private

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[2523] Luxembourg's National Data Protection Authority website, The CNPD is the first data protection authority in Europe to deliver an accreditation to a GDPR certification body (Oct. 17, 2022), https://cnpd.public.lu/en/actualites/national/2022/10/premier-agrement-certification.html

[2524] Council of Europe, *Chart of signatures and ratifications of Treaty 223* (status as March 22, 2023), https://www.coe.int/en/web/conventions/full-list?module=signatures-by-treaty&treatynum=223

[2525] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[2526] See Recital 63 and Article 22 of the GDPR.

[2527] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[2528]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[2529]

Ban on facial recognition

Luxembourg is highly regarded as one of the few (European) countries to ban facial recognition. While this ban has never been transformed into a policy, Luxembourg Minister of Defense François Bausch pledged in October 2019 that no facial recognition systems would be implemented during his term in the Defense Department.[2530]

In May 2022, the European Data Protection Board (EDPB) issued guidelines on the use of facial recognition technologies in the area of law enforcement.[2531] "EDPB Chair Andrea Jelinek said: "While modern

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[2528] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[2529] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[2530] Chambre des Désputés du Grand-Duché de Luxembourg, *Vidéosurveillance Policière: Recadrage* (Oct. 2019), https://delano.lu/article/delano_lux-police-not-using-facial-recognition

[2531] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May 12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[2532]

Lethal autonomous weapons

Luxembourg has regularly voiced its position on Letham autonomous weapon systems (LAWS), in particular, via the meetings on autonomous weapons systems of the Convention on Certain Conventional Weapons (CCW). For example, in 2019, Luxembourg mentioned that international norms on LAWS could be strengthened, and spoke in favor of keeping "human control" over the use of force.[2533] In September 2021, Luxembourg submitted a joint submission to the Chair of the Group of Governmental Experts (GGE) on LAWS, indicating that "the ceding of human control, agency, responsibility and intent in decisions on the application of force to algorithms and computer-controlled processes poses fundamental ethical concerns."[2534] In 2022, Luxembourg together with other delegations submitted a working paper on emerging technologies in the area of LAWS to the Chair of the GGE, acknowledging the responsibility of the GGE to "recognize the urgent need for adequate rules and limits on the development, deployment, and use of autonomous weapon systems to ensure sufficient human involvement and oversight."[2535]

[2532] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

[2533] Government of Luxembourg, Statement to the Convention on Conventional Weapons Group of Governmental Experts on lethal autonomous weapons systems (Aug, 20, 2019), https://conf.unog.ch/digitalrecordings/index.html?guid=public/61.0500/D438BEC1-48F6-4116-BEE5-1A44BE7EBC19_10h09&position=8786

[2534] *Submission by Austria, Brazil, Chile, Ireland, Luxembourg, Mexico and New Zealand to the Chair of the CCW GGE on LAWS* (Sept. 2021), https://reachingcriticalwill.org/images/documents/Disarmament-fora/ccw/2021/gge/documents/Austria-et-al_sept.pdf

[2535] *Working Paper submitted to the 2022 Chair of the Group of Governmental Experts (GGE) on emerging technologies in the area of lethal autonomous weapons systems*

In October 2022, Luxembourg was one of 70 states that endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an international framework of rules and constraints.[2536] In this joint statement, States declared that they "are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[2537]

In February 2023, Luxembourg participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Luxembourg, together with other countries, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[2538] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities

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(LAWS) on behalf of Argentina, Austria, Belgium, Chile, Costa Rica, Ecuador, Guatemala, Ireland, Kazakhstan, Liechtenstein, Luxembourg, Malta, Mexico, New Zealand, Nigeria, Panama, Peru, the Philippines, Sierra Leone, Sri Lanka, State of Palestine, Switzerland, and Uruguay, https://documents.unoda.org/wp-content/uploads/2022/05/2022-GGE-LAWS-joint-submission-working-paper-G-23.pdf

[2536] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly,* (2022) https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

[2537] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

[2538] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[2539]

Human Rights

Luxembourg is a signatory to many international human rights treaties and conventions. In 2022, Luxembourg received a rating of 97/100 in the Freedom House Index. Freedom House reported that "Luxembourg is a constitutional monarchy with a democratically elected government. Political rights and civil liberties are generally respected".[2540]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[2541]

OECD / G20 AI Principles

Luxembourg is a member of the OECD and endorsed the OECD AI Principles. In its national AI strategy, Luxembourg does not directly refer to the OECD AI principles, but rather supports their key principles and suggestions such as human-centered AI, transparency of AI systems, exploring links between ethics and AI, establishing private and public

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[2539] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[2540] Freedom House, *2022 Luxembourg Country Report*, https://freedomhouse.org/country/luxembourg/freedom-world/2022

[2541] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

partnerships. OECD also noted several examples of implementation of the AI Principles by Luxembourg.[2542]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Luxembourg endorsed the UNESCO Recommendation on the Ethics of AI.[2543] It remains to be seen which measures it will take to implement the Recommendation in practice.

Evaluation

Host to some of the biggest multinational technology companies, Luxembourg is one of the first countries to have developed a policy in the field of AI that addresses issues of certification and standardization. Luxembourg benefits from a comprehensive data protection legal regime with an independent data protection commission. To be true to its commitment to a human-centered approach to AI and in line with its endorsement of the UNESCO Recommendation on the Ethics of AI, it would be worth for Luxembourg to finally ratify the modernized version of Council of Europe Convention 108. Luxembourg is one of the very few countries to have officially committed for law enforcement authorities not to use facial recognition. As the negotiations surrounding the EU AI Act are ongoing, Luxembourg's voice could have a positive impact in supporting a ban on the use of facial recognition in public spaces.

[2542] OECD, *Digital Government Review of Luxembourg : Towards More Digital, Innovative and Inclusive Public Services* (Sept. 28, 2022), https://www.oecd-ilibrary.org/search?value1=9789264985421&option1=issnisbndoi; OECD website, *AI in Luxembourg*, https://oecd.ai/en/dashboards/countries/Luxembourg; *Recommendation of the Council on Artificial Intelligence*, OECD/LEGAL/0449 (2019), https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449
[2543] *UNESCO Recommendation on the Ethics of Artificial Intelligence* (2021), https://unesdoc.unesco.org/ark:/48223/pf0000381137

Malaysia

National AI Strategy

       The Government of Malaysia does not have a National AI Strategy. Instead AI-related policies under the umbrella of the National AI Roadmap (AI-Rmap), are addressed as part of the Malaysian whole-of-government strategy, known as the "Twelfth Malaysia Plan, 2021-2025" (12 Plan) introduced in September 2021 with the aim of "a prosperous, inclusive and sustainable Malaysia."[2544]

       According to the 12 Plan, "national strategies on artificial intelligence (AI) and blockchain will be developed to guide the growth of every sector in the economy." The 12 Plan mentions that measures will be implemented to strengthen guidelines and regulations on personal data protection and data sharing with the aim of "ensuring data safeguards against cyber-attacks and unethical uses." According to the Plan, "an ethical framework and standards on technology development, deployment, and utilisation will also be introduced to ensure responsible use of technology."

       Digitalization and AI objectives are covered under the Malaysian Digital Economy Blueprint, operated in coordination with the Economic Planning Unit (EPU) and various other plans, as illustrated below.

- Malaysian Digital Economy Blueprint (2021-2031): The Malaysian government, via its Economic Planning Unit (EPU), launched its digital economy blueprint. MyDIGITAL is a comprehensive 104-page document that lays the road map to achieve the country's grand vision to become a regional leader in the digital economy and attain inclusive, responsible, and sustainable socio-economic development, nationally. The intent is to "transform Malaysia into a digitally-driven, high-income nation and a regional leader in the digital economy."[2545]
- National Fourth Industrial Revolution (2021): The Malaysian government, via its Economic Planning Unit (EPU), also introduced its National 4IR Policy, designed to "steer strategic socio-economic transformation through the ethical use of 4IR policies." Using a whole-of-nation approach, the plan intends to: support balanced, responsible, and sustainable growth for business; provide socio-environmental well-being for all, and create a fit-for-future

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[2544] Government of Malaysia, *Twelfth Malaysia Plan* (2021), https://rmke12.epu.gov.my/bm
[2545] Government of Malaysia, *Malaysia Digital Blueprint Economy,* https://www.epu.gov.my/sites/default/files/2021-02/malaysia-digital-economy-blueprint.pdf

government. Notably, the Policy draws on references from the World Economic Forum (WEF), OECD, UN, and the World Bank.**[2546]**

- National Big Data Analytics (BDA) Framework (2016): Introduced by the Malaysia Digital Economy Corporation (MDEC), the BDA has four focus areas: architecting a data-driven culture; identifying roles for a data-driven organization; turning information into action; accessing tools and partners.[2547]
- National Policy on Science, Technology & Innovation (NPSTI) (2013 -2020): Advance Malaysia towards a more competitive and competent nation built upon a strong science, technology, and innovation foundations.[2548]
- In 2021, the Ministry of Science, Technology, and Innovation (MOSTI) awarded selected researchers grants to formulate National Artificial Intelligence (AI) Roadmap for Malaysia.[2549]

In 2017, the Malaysian Government announced plans to develop a National AI Framework complementary to its National Big Data Analytics Framework.[2550] However, it later decided instead to focus on the AI-Rmap and various sectoral initiatives under its umbrella. The AI-Rmap "is an extension of the Malaysia Digital Economy Corporation's (MDEC) still unreleased National AI Framework (NAIF), which is said to set out 20 initiatives within six key building blocks and five goals related to the economy, government, and industry, as well as people and society. NAIF aside, the AI-Rmap also takes into account seven other AI-related documents, including national policies that incorporate the development and implementation of AI. These are the Shared Prosperity Vision (SPV) 2030 (which replaces the earlier Vision 2020); the Ministry of Science,

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[2546] Government of Malaysia, *National 4IR Policy* (July 1, 2021), https://www.epu.gov.my/sites/default/files/2021-07/4IR_Presentation.pdf

[2547] Malaysia Digital Economy Corporation, *Malaysia's National Big Data Analytics Initiative* (Oct. 2016), https://calabarzon.neda.gov.ph/wp-content/uploads/2016/10/02-Big-Data-Analytics-MDEC.pdf

[2548] My Government, Government Policies, *National Policy on Science, Technology and Innovation (NPSTI)*, https://www.malaysia.gov.my/portal/content/30923; https://www.pmo.gov.my/wp-content/uploads/2019/07/NPSTI-2013-2020-English-1.pdf

[2549] University of Technology, Malaysia, *UTM Experts Entrusted by MOSTI to Develop the National Artificial Intelligence (AI) Roadmap for Malaysia* (Dec. 1, 2020), https://news.utm.my/2020/12/utm-experts-entrusted-by-mosti-to-develop-the-national-artificial-intelligence-ai-roadmap-for-malaysia/

[2550] OpenGOVAsia.com, *Plans for cloud-first strategy and national AI framework revealed at 29th MSC Malaysia Implementation Council Meeting* (Oct. 28, 2017), https://opengovasia.com/plans-for-cloud-first-strategy-and-national-ai-framework-revealed-at-29th-msc-malaysia-implementation-council-meeting/

Technology and Innovation's (MOSTI) National Science, Technology and Innovation Policy (NSTIP) 2021–2030 and 10–10 MySTIE Framework; the Ministry of International Trade and Industry's (MITI) Industry4WRD: National Policy on Industry 4.0; the Academy of Sciences Malaysia's Envisioning Malaysia 2050 Foresight Narrative; Malaysia Digital Economy Blueprint; and Malaysia AI Blueprint 2019." [2551]

The AI-Rmap has six overall strategies to execute: establishing AI governance, advancing AI R&D, escalating a digital infrastructure to enable AI, fostering AI talents, acculturating AI, and kick-starting a national AI innovation ecosystem.[2552] While the roadmap does not explicitly address human rights, it does include "Pursuit of Human Benefits and Happiness" under its list of Principles of Responsible AI.[2553]

The AI-Rmap has a distinct action plan through 2025, with benchmarks set for horizon 1 (2021-2022), horizon 2 (2023-2024), and horizon 3 (2050 onwards). Within those benchmarks, four strategic initiatives are delineated. For instance, strategic initiative 1.1 "Establishing an AI Coordination and Implementation Unit (AI-CIU) responsible for successful implementation of the AI Roadmap" outlined the appointment of a committee by horizon 1 (2021-2022) to oversee the execution of the AI-Rmap. The AI-CIU was also tasked with implementing an AI code of ethics as part of strategic initiative 1.4 institutionalizing AI principles for AI implementation. However, despite these benchmarks delineated under each horizon, no documentation has been found indicating any progress since the AI-Rmap publication in 2022.[2554]

Nevertheless, in August 2022, the Malaysian Ministry of Science, Technology, and Innovation (MOSTI) launched five complementary technology roadmaps: the "Electricity and Electronics Roadmap: Artificial Intelligence Roadmap 2021-2025", the "Technology Development 2021-2030", the "National Blockchain Technology Roadmap 2021-2025," the

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[2551] Asia Society Policy Institute, *Raising Standards, Data and AI in Southeat Asia* (July 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

[2552] Ministry of Science, Technology, and Innovation, *Malaysia National Artificial Intelligence Roadmap 2021-2025 (AI-Rmap)*, https://airmap.my/wp-content/uploads/2022/08/AIR-Map-Playbook-final-s.pdf

[2553] Ministry of Science, Technology, and Innovation, *Malaysia National Artificial Intelligence Roadmap 2021-2025 (AI-Rmap)*," https://airmap.my/wp-content/uploads/2022/08/AIR-Map-Playbook-final-s.pdf, p. 30.

[2554] Ibid.

"National Advanced Materials Roadmap 2021-2030," and the "National Robotics Roadmap 2021-2030."[2555]

Data Protection

Data protection in Malaysia stems from the Personal Data Protection Act of 2010 (PDPA),[2556] adopted by the Malaysian Parliament on June 2, 2010, and which came into force on November 15, 2013. The PDPA seeks to safeguard personal data and confer certain rights to users regarding personal data. In addition to the PDPA, five pieces of subsidiary legislation were also enforced on November 15, 2013.

Additional legislation passed to date include the Personal Data Protection Regulations 2013 ('the 2013 Regulations'); the Personal Data Protection (Class of Data Users) Order 2013 ('the Order'); the Personal Data Protection (Registration of Data User) Regulations 2013 ('Registration Regulation'); the Personal Data Protection (Fees) Regulations 2013; the Personal Data Protection (Compounding of Offences) Regulations 2016 ('Compounding of Offences Regulations'); the Personal Data Protection (Class of Data Users) (Amendment) Order 2016 ('the Order Amendment'); and the Personal Data Protection (Appeal Tribunal) Regulations 2021.[2557]

The PDPA imposes strict requirements on any person who collects or processes personal data (data users) and grants individual rights to data subjects. The PDPA is enforced by the Commissioner of the Department of Personal Data Protection (the Commissioner). The PDPA is similar in a sense to the Data Protection Directive 95/46/EC of the European Union (EU), leading the PDPA to be described as European-style privacy law.[2558]

The PDPA does not apply to federal and state governments.[2559] It also exempts the processing of information by a credit reporting agency and it does not constrain government access to data. As part of an ongoing

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[2555] Rex Tan, *Mosti Launches Five Technology Roadmaps to Develop Malaysia's Robotics, Advanced Materials, and AI Industries,* Malay Mail (Aug. 9, 2022), https://www.malaymail.com/news/money/2022/08/09/mosti-launches-five-technology-roadmaps-to-develop-malaysias-robotics-advanced-materials-and-ai-industries/21970; see also the AR R-map, https://airmap.my/wp-content/uploads/2022/08/AIR-Map-Playbook-final-s.pdf

[2556] Malaysia Ministry of Communications and Multimedia, *Personal Data Protection Act 2010* (June 2010), https://www.kkmm.gov.my/pdf/Personal%20Data%20Protection%20Act%202010.pdf

[2557] DataGuidance.com, *Personal Data Protection Act 2010* (Jun. 2021), https://www.dataguidance.com/notes/malaysia-data-protection-overview

[2558] The Law Reviews, *The Privacy, Data Protection and Cybersecurity Law Review: Malaysia* (Nov 5, 2021), https://thelawreviews.co.uk/title/the-privacy-data-protection-and-cybersecurity-law-review/malaysia

[2559] Ibid.

review of the PDPA, the Personal Data Protection Commissioner of the Ministry of Communications and Multimedia Malaysia has issued Public Consultation Paper No. 01/2020 – Review of Personal Data Protection Act 2010 (PC01/2020) dated February 14, 2020, to seek the views and comments of the public on 22 issues set out in PC01/2020.

The converging opinion among stakeholders is that although Malaysia is a regional frontrunner in its data protection regime, the country's laws and regulations need to evolve to reflect a more complex digital landscape. The gap between Malaysia's governance capacity and the country's aspirations could stymie its ambitions for a complete digital transformation by undermining trust in both the online and offline spaces. This risk is underscored by several realities: significant data breaches without commensurate penalty or recourse, existing gaps in the PDPA, as well as the inclusion or exclusion of vulnerable communities in Malaysia's data-driven and digitalization agenda.[2560]

AI in Healthcare

In 2017, the Ministry of Health launched the Malaysian Health Data Warehouse (MyHDW) as part of a national healthcare information-gathering system. The system is designed to share a patient's healthcare records among all public health institutions, ensuring any doctor had full access to medical records. The Malaysian government also initiated several public-private collaborations, including the signing of a Memorandum of Understanding (MoU) between Microsoft Malaysia and CREST (Collaborative Research in Engineering, Science & Technology) to create a first-of-its-kind digital health hub, and the creation of Malaysia's largest digital health platform, DoctorOnCall, which connects patients with an extensive network of over 1,500 Specialists in private hospitals and more than 100 GP doctors throughout the country.[2561]

To combat the spread of COVID-19, the Malaysian government led a multi-agency effort to create the MySejahtera app, which was linked to the MyTrace app (developed by the Malaysian Ministry of Science, Technology, and Innovation (MOSTI)) which "enables the identification of those who have been in close proximity to an infected person using

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[2560] Asia Society Policy Institute, _Raising Standards, Data and AI in Southeast Asia_ (July 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

[2561] HealthcareITnews.com, _An overview of Malaysia's digital health landscape_ (July 1, 2020), https://www.healthcareitnews.com/news/asia/overview-malaysia-s-digital-health-landscape

Bluetooth technology."[2562] In December 2020, the Malaysian government mentioned that there were 24.5 million users of Mysejahtera, with a strong push by the government for increased usage.[2563]

MOSTI also endorsed the use of AI-enabled apps to detect those who may have been in close contact with a COVID-19 patient, and a geofencing app to enforce and monitor quarantines." In May 2021, the Malaysian government launched the Hotspot Identification for Dynamic Engagement (HIDE) system, as an early warning system to preemptively identify COVID-19 hotspots using predictive technology, big data analytics, and AI.[2564] MOSTI is also planning to add "artificial intelligence and big data analytics into the HIDE system to produce more accurate predictions of coronavirus hotspots based on Bluetooth contact tracing. HIDE currently uses MySejahtera check-in data.[2565]

Finally, in August 2021, the Malaysian government introduced a new mobile app, the Vaccine Certificate Verifier app, to combat a rise in the production and selling of fake certificates in the country.[2566] While the government has rolled out the use of AI-enabled technology to assist the healthcare industry and COVID-19 response, there has been little communication from the government about human rights, data privacy, and algorithmic transparency.

Facial Recognition

Since launching the Safe City Initiatives in 2004, cities across Malaysia have been installing CCTVs in public areas to monitor crime, traffic surveillance, and flooding.[2567] As part of the initiative, the Minister of Federal Territories announced in 2020 their intention to increase up to

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[2562] HealthcareITnews.com, *COVID-19: Malaysia's pandemic approaches and its impact on telehealth* (June 08, 2020), https://www.healthcareitnews.com/news/asia/covid-19-malaysia-s-pandemic-approaches-and-its-impact-telehealth

[2563] Yahoo News, *Health Ministry source: MySejahtera covers 24.5 million users with up to 30,000 daily downloads despite misconceptions* (Dec. 3, 2020), https://malaysia.news.yahoo.com/health-ministry-source-mysejahtera-covers-020809774.html

[2564] Mondaq.com, *Malaysia: Covid-19: Nowhere To HIDE?* (May 24, 2021),

[2565]https://www.mondaq.com/government-measures/1071572/covid-19-nowhere-to-hide
Code Blue, *Government Plans Bluetooth Covid-19 Contact Tracing, Geofencing Self-Quarantine App* (Nov 2, 2021), https://codeblue.galencentre.org/2021/11/02/government-plans-bluetooth-covid-19-contact-tracing-geofencing-self-quarantine-app/

[2566] HealthcareITnews.com, *Malaysia launches vaccine certificate verification app* (Aug. 24, 2021), https://www.healthcareitnews.com/news/asia/malaysia-launches-vaccine-certificate-verification-app

[2567] Jabatan Pengangkutan Bandar DBKL, Inisiatif Bandar Selamat, *MyGovernment,* (Aug. 20, 2020), https://www.malaysia.gov.my/portal/content/31144

5000 cameras in the capital city of Kuala Lumpur and upgrade existing cameras with AI capabilities, facial recognition, and other functions.[2568]

In 2018, Auxiliary Force Sdn Bhd (AFSB), a member of Royal Malaysia Police Cooperative Bhd., became the first Malaysian security force in the country to integrate body-worn cameras with facial recognition technology.[2569] In 2019, the state of Penang launched the first public facial recognition to help police combat crime. The system: uses AI to identify faces captured by the CCTV network operated by Penang Island City Council (MBPP)", with a plan to have hundreds of new cameras installed at major roads, intersections, and hotspots for criminal activity.[2570] The Malaysian business sector has also integrated the use of facial recognition across the nation, including facial recognition "check-ins" at events[2571], and the Malaysian Ministry of Transport introduced a public-private facial recognition program in 2019, allowing users to take selfies of themselves for recognition.[2572] While there is an increase in facial recognition technology in Malaysia, there is no overarching AI Policy focused on human rights and democratic values governing the use of this technology.

In 2021, the Malaysian government began planning the introduction of the Digital Identity (Digital ID) initiative. The initiative is expected to be fully implemented in 2024. The Digital ID will be a form of digital identification and authentication for individuals by using the latest biometric technology such as fingerprints, and facial and iris recognition while conducting matters online. The Home Ministry and National Registration Department (NRD) have been entrusted to lead the implementation of this initiative as the population data, information and

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[2568] Metro News, *UN Safe City Concept Implemented in Malaysia since 2004*, The Star (July 7, 2022), https://www.thestar.com.my/metro/metro-news/2022/07/07/un-safe-city-concept-implemented-in-malaysia-since-2004

[2569] OpenGOVAsia.com, *Auxiliary Force of Malaysian Police integrates facial recognition technology with body-worn cameras* (Apr. 16, 2018), https://opengovasia.com/auxiliary-force-of-malaysian-police-integrates-facial-recognition-technology-with-body-worn-cameras/

[2570] Biometricupdate.com, *Malaysian state launches facial recognition to CCTV network* (Jan 3, 2019), https://www.biometricupdate.com/201901/malaysian-state-launches-facial-recognition-to-cctv-network

[2571] The Malaysian Reserve, *Facial recognition tech grows amid concerns* (Dec. 5, 2019), https://themalaysianreserve.com/2019/12/05/facial-recognition-tech-grows-amid-concerns/?__cf_chl_jschl_tk__=DAhg_QRUGomGzvz0vzL53vheCQUq1lvw25Aloim.rTw-1636370158-0-gaNycGzNClE

[2572] Grab.com, *Grab partners with Ministry of Transport to implement facial recognition technology in Malaysia* (Apr 11, 2019), https://www.grab.com/my/press/social-impact-safety/grab-mot-facial-recognition-technology/

records are under the custody and jurisdiction of the NRD.[2573] The National Digital ID (ID Digital Nasional, IDN) aims to create a Verifiable Platform of Trust that will be utilized by the public and private sectors to verify the identity of their respective users when conducting digital transactions. The IDN is targeted at every Malaysian citizen and permanent resident aged 5 years and above.[2574] There has been criticism on the security and privacy of personal data. Details concerning the digital ID system project are contained in a document called the Twelfth Malaysian Plan, Eurasia Review states, adding that the database will contain citizens' information such as their full names, aliases, as well as face and fingerprint biometrics.[2575]

In 2021, AirAsia introduced its revamped FACES, a facial recognition technology that allows passengers to replace their traditional boarding pass with their face, allowing for a seamless and contactless experience throughout several airport touchpoints as passengers do not need to carry around their passports and boarding passes.[2576] In 2022, AirAsia announced that it would integrate the facial recognition experience with Malaysia Airports' EZPaz technology at Kuala Lumpur International Airport (KLIA2). The enhanced FACES feature is only available on select domestic travel in the initial phase. In order to use FACES, passengers need to enroll in AirAsia FACES via their mobile app, take a selfie video, and scan their travel documents, such as their IC or passport. Before using FACES, passengers also need to perform a one-time document verification check at the dedicated FACES counters at W15 and W16 at KLIA2 in Malaysia. According to AirAsia, the facial recognition feature helps reduce queuing time and increases operational efficiencies, safety, and security for the airline.[2577]

[2573] Liew Jia Xian, *Govt to introduce Digital ID system that strengthens MyKad security, says Home Ministry*, The Star, (Oct. 20, 2021), https://www.thestar.com.my/news/nation/2021/10/20/government-to-introduce-digital-id-system-which-strengthens-mykad-security-says-home-ministry

[2574] *National Digital ID*, https://www.malaysia.gov.my/portal/content/31124

[2575] Avang MacDonald, *Malaysia's biometric registry project faces sharp criticism*, Biometric Update.com, (Oct. 5, 2021), https://www.biometricupdate.com/202110/malaysias-biometric-registry-project-faces-sharp-criticism

[2576] Staff, Asian Aviation, *AirAsia Expands Facial Recognition at KL* (5 Oct. 2022), https://asianaviation.com/airasia-expands-facial-recognition-at-kl/.

[2577] Alexander Wong, *AirAsia FACES Now Integrated with Malaysia Airports' EZPaz Facial Recognition System* (Nov 6. 2022), SoyaCincau, https://soyacincau.com/2022/10/06/airasia-faces-now-integrated-with-malaysia-airports-ezpaz-facial-recognition-system/.

AI in Court

　　Malaysia announced in 2010 its plan to establish an e-judiciary system against the backdrop of a broader initiative to digitalize its government and public services.[2578] By 2017, the national judiciary system had been fully digitalised and was integrated with other government agencies, including COPS (Royal Malaysia Police), MySikap (Road Transport Department), INSIST (Malaysian Department of Insolvency), MyIdentity (National Registration Department), SMPP (Malaysian Prison Department), iAGC (Attorney General's Chambers of Malaysia), and MyeTaPP (Department of Lands and Mines).

　　In February 2020, a court in Sabah, Malaysia, used AI to help mete out a court sentence. This was part of a nationwide pilot program that aimed to determine the efficiency of AI in sentencing recommendations. This was followed by the release of an official guidance for using AI in judiciary sentencing on the peninsula in 2021, which described a three-phase strategy to expand the use of AI sentencing programs across the entire nation.[2579] According to Malaysian authorities, using AI in Malaysia's courts will help make sentencing more consistent and improve the quality of judgment while clearing backlogs more quickly and cost-efficiently. However, lawyers and various stakeholder groups have criticized this particular AI use on the grounds that the system has been used before judges, lawyers, and the public can fully understand it and the way it works. The use of AI in the courts has also been criticized as unconstitutional and not envisaged under the country's Criminal Procedure Code. Other critics of the AI-sentencing pilot say AIs are incapable of using their own discretion and that they risk worsening the bias against minorities and marginalized groups by not giving them a fair trial.[2580]

[2578] Office of The Chief Registrar Federal Court of Malaysia, *Sistem E-Kehakiman Bagi Mahkamah Di Seluruh Negara*, MyGovernment,
https://www.malaysia.gov.my/portal/content/31135

[2579] Office of the Chief Registrar Federal Court of Malaysia, *Kenyataan Media - Garis Panduan Pelaksanaan Penghukuman Menggunakan Teknologi Artificial Intelligence Di Mahkamah Rendah Semenanjung Malaysia* (July 22, 2021),
https://www.kehakiman.gov.my/sites/default/files/Kenyataan%20Media%20-%20Garis%20Panduan%20Pelaksanaan%20Penghukuman%20Menggunakan%20Teknologi%20Artificial%20Intelligence%20di%20Mahkamah%20Rendah%20Semenanjung%20Malaysia.pdf

[2580] Danial Martinus, *Malaysia Tests AI Court Sentencing despite Ethical Concerns Raised by Lawyers* via Mashable SEA, (Apr. 13, 2022),
https://sea.mashable.com/tech/20026/malaysia-tests-ai-court-sentencing-despite-ethical-concerns-raised-by-lawyers

Autonomous Vehicles

The Government of Malaysia has declared on its official website that AI will be a key technology in developing autonomous or self-driving vehicles. The government of Malaysia mentions that "not only is AI capable of collecting and analysing data through sensors and cameras but it is also capable of adapting to situations and learning through machine learning."[2581]

In February 2022, the Ministry of Transport in Malaysia updated the Guidelines for Public Road Trials of Autonomous Vehicles. The Guidelines are intended to provide guidance to organizations planning to conduct trials of automated vehicles on designated public roads. Data and information collected from the AV trial may be used in the future by relevant authorities to develop a national policy and regulatory framework for AV adoption and application in Malaysia. The Guidelines provide for safety trial measures for trialing organizations[2582] such as ensuring that the AV's software, components, equipment, and instruments are safe and operational as intended. Also, a trialing organization must be aware of abnormal traffic and weather conditions that may cause the AV system to fail.[2583]

According to the Malaysian Investment Development Authority ("MIDA"), Malaysia supports efforts to become a regional leader in manufacturing, engineering, and technological innovation. To this end, the National Automotive Policy 2020 (NAP 2020) aims to develop the Malaysian auto industry "through research and development of new technologies, especially in the areas of Next-Generation Vehicles (NxGV), Industrial Revolution 4.0 (IR 4.0) and mobility -as a service (MaaS)".[2584] According to the MIDA, the first autonomous vehicle (AV) testing route of Malaysia, which will allow tech companies to test the capabilities of their vehicles, has been approved by the Ministry of Transport of Malaysia and the Sepang Municipal Council.[2585]

[2581] Government of Malaysia, *Capacities for Digital Transformation, Autonomous Car,* https://www.malaysia.gov.my/portal/content/30713

[2582] An organization that is approved to conduct an AV trial.

[2583] *Guideline for Public Road Trials of Autonomous Vehicles,* https://www.mot.gov.my/my/Announcement/GUIDELINE%20FOR%20PUBLIC%20ROAD%20TRIALS%200F%20AUTONOMOUS%20VEHICLES.pdf

[2584] Malaysia Industrial Development Authority, *Malaysia steering towards autonomous vehicle technology,* https://www.mida.gov.my/malaysia-steering-towards-autonomous-vehicle-technology/

[2585] Ibid.

Lethal Autonomous Weapons

In February 2023, Malaysia participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Malaysia, together with other countries, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[2586] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[2587]

Human Rights

Malaysia is a member of the United Nations and has endorsed the Universal Declaration of Human Rights. According to the Freedom House, in 2022, Malaysia is "partly free" with a score of 50/100.[2588] Freedom House notes, "The Barisan Nasional (BN) political coalition ruled Malaysia from independence in 1957 until 2018, maintaining power by manipulating electoral districts, appealing to ethnic nationalism, and suppressing criticism through restrictive speech laws and politicized prosecutions of opposition leaders. The BN lost to an opposition alliance in the 2018 general

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[2586] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action
[2587] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action
[2588] Freedom House, *Malaysia: Freedom in the World 2022 Malaysia: Freedom in the World 2022 Country Report*, https://freedomhouse.org/country/malaysia/freedom-world/2022

elections. However, a period of political turbulence and realignment in early 2020 culminated in a new governing coalition that included parties central to the pre-2018 regime. That government was resistant to governance reforms. Concerns about narrowing freedoms persist." In its report, Freedom House raised concerns that laws, policies, and practices do not guarantee equal treatment of various population segments.

On transparency, Freedom House noted that "efforts towards enacting a freedom of information act and other reforms stalled after the PN [Perikatan Nasional] took power."[2589] Government operations were also not transparently carried out while Parliament was suspended for part of 2021.

OECD / G20 AI Principles

Malaysia has not endorsed OECD AI and G20 AI principles. The OECD AI Policy Observatory does not list any AI initiatives from Malaysia.

UNESCO Recommendation on the Ethics of Artificial Intelligence

As a member of UNESCO, Malaysia, along with 192 other member states, has adopted the Recommendation on the Ethics of Artificial Intelligence in November 2021, the first global standard on the ethics of artificial intelligence. However, no measures have been put in place by the country to implement the Recommendation.[2590]

Evaluation

Malaysia has rapidly introduced technology into its public and private sectors and has constructed numerous digital policies and has taken action to map out and support its digital economy and support business growth. While there is currently no comprehensive national AI framework currently, the AI-Rmap is ongoing and part of the overall 12 Plan. Malaysia endorsed the UNESCO Recommendation on the Ethics of AI however the switch of the government from the drafting of a national AI strategy to the implementation of a more concrete AI Roadmap with various ramifications but without so far any ethical framework, as well as the lack of modernization of Malaysia's data protection legal regime, are cause for concern in view of Malaysia's deployment of AI for surveillance purposes. It remains to be seen whether the new Prime Minister, Anwar Ibrahim, will

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[2589] Ibid.

[2590] UNESCO, *UNESCO Adopts First Global Standard on the Ethics of Artificial Intelligence* (Nov 6, 2022),
 https://www.unesco.org/en/articles/unesco-adopts-first-global-standard-ethics-artificial-intelligence

uphold his "promise of political and social reforms" and give to Malaysia's AI and data protection law and policies a strong human-centered focus.[2591]

[2591] Freedom House, Freedom in the World 2023 (March 2023), p. 26, https://freedomhouse.org/sites/default/files/2023-03/FIW_World_2023_DigtalPDF.pdf

Malta

National AI Strategy

In October 2019, Malta's Parliamentary Secretary for Financial Services, Digital Economy and Innovation (PSFS) released the country's AI strategy, which aims to make Malta the "Ultimate AI Launchpad,"[2592] by creating a venue where "local and foreign companies and entrepreneurs can develop, prototype, test and scale AI, and ultimately showcase the value of their innovations across an entire nation primed for adoption."[2593] The National AI Strategy was drafted on the basis of report delivered by the Malta AI Taskforce,[2594] a group of experts entrusted with the task to advise the government on AI matters.

The National AI Strategy includes more than 70 actions that are set to be implemented by the end of 2022, together with actions to support a longer-term vision of where the country would like to be in 2030. The Strategy includes three strategic pillars with a focus on boosting investment, start-ups and innovation and adoption across the public and private sectors. These strategic pillars are: 1) Investment, start-ups, and innovation; 2) Public sector adoption; and 3) Private sector adoption. Moreover, each pillar draws on three strategic "enablers:" 1) Education and workforce; 2) Ethical and legal, and 3) Ecosystem and infrastructure. The ethical and legal enabler aims to establish the first national AI certification program for those wishing to create "ethically aligned, transparent and socially responsible AI solutions." Each pillar draws on three strategic enablers that cut across the three areas of education and workforce; legal and ethical considerations; and ecosystem infrastructure. The Strategy, however, does not disclose financial provisions or estimations for its overall implementation.

The goals to be achieved in between 2019 and 2022 are:
- To raise awareness of Maltese citizens on what AI is
- To generate investment with AI related actvities
- To support a strong culture of collaboration locally and internatonally to pilot and scale AI solutions

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[2592] *Malta the ultimate AI Launchpad: a strategy and vision for Artificial Intelligence in Malta 2030* (2019), https://malta.ai/wp-content/uploads/2019/11/Malta_The_Ultimate_AI_Launchpad_vFinal.pdf; Malta Parliamentary Secretary for Financial Services, Digital Economy and Innovation, *A Strategy and Vision for Artificial Intelligence in Malta 2030* (Oct. 2019), https://malta.ai/wp-content/uploads/2019/11/Malta_The_Ultimate_AI_Launchpad_vFinal.pdf

[2593] Ibid.

[2594] https://meae.gov.mt/en/public_consultations/pages/home.aspx

- To launch and implement pilot projects that showcase the benefits that AI can deliver and to build an AI-powered government
- To prepare the workforce for work in an AI-driven world
- To support business community in their efforts to develop foundational knowledge
- To update and align Maltese national law in accordance with changes that may be required to keep pace with disruptive Technologies.
- To quarantee development of AI policy builds upon ethical and trustworthy AI and to adopt and apply national AI certification mechanism to that end
- To support open data for AI development and to ensure high performace compute access and cybersecurity measures.
  The goals to be achieved by 2030 are:
- To have entrusted AI solutions part of everyday life of Maltese citizens and across all generations.
- To enable AI to be the key driver that propels R&D activities
- Malta to be amongst the top 10 nations with the highest impact national AI programme
- To have AI soultions that will augment public services
- To have companies of all sizes and sectors deployed AI solutions
- Maltese workes to have skill sets needed to thrive in AI-driven working atmosphere
- To have robust, legal, governance and social protection mechanisms in order to ensure that AI systems are safe, ethical, trusted, socially responisple and human centric
- To have a national AI policy that assists to shape international standards on AI systems
- To ensure better protection of personal data when AI applications are used.

 Malta Digital Innovation Authority (MDIA) was established back in 2018 through the Malta Digital Innovation Authority Act as an independent authority and tasked with supervising the execution of Malta's National Artificial Intelligence Strategy.

Ethical AI framework and Principles
 The National AI Strategy identified four key actions towards trustworthy AI:
- Establish an Ethical AI Framework Towards Trustworthy AI
- Launch the world's first national AI certification framework

- Appoint a Technology Regulation Advisory Committee to advise on legal matters
- Set up a Regulatory Sandbox for AI and a Data Sandbox for AI

The National AI Strategy foresees a strong ethical AI framework as a supplement to the national legal and regulatory system to ensure that AI development is ethically aligned, transparent and socially responsible. To that end, Malta AI Task Force and the Parliamentary Secretary for Financial Services, Digital Economy and Innovation within the Office of the Prime Minister released a document entitled "Malta: Towards Trustworthy AI: Malta Ethical AI Framework for Public Consultation" and invited members of the public, industry and academia to provide feedback. [2595]

Four objectives are defined: (1)Build on human-centric approach; (2) Respect for all applicable laws and regluations, human rights and democratic values; (3) Maximise the benefits of AI systems while preventing and minimising their risks; (4) align with emerging international standards and norms around AI ethics. The framework outlines Malta's vision for an ethical and trustworthy AI and sets out four ethical AI principles to achieve this: human autonomy; prevent harm; fairness; and explicability.

The framework also recommends the establishment of a National Technology Ethics Committee (NTEC) under the auspices of the MDIA to ensure its monitoring and implementation.[2596] However, to date, there is no evidence that the committee has in fact been created.

With regard to the launch of a national AI certification framework, Malta has developed such AI certification framework, issued by the MDIA. The certification serves as a valuable recognition in the marketplace that the AI systems of successful applicants have been developed in an ethical, transparent and socially responsible manner.

As fort he AI regulatory sandbox, during the past years, the MDIA opened a number of competitive calls which resulted in state-of-the-art research, and innovative projects. The MDIA Technology Assurance Sandbox has been revamped and in March 2023 another project on conversational AI was onboarded.[2597]

[2595] AI Strategy and maltaineu.gov.mt, *Malta launches its National Strategy and the fist World AI Certification*, https://maltaineu.gov.mt/en/Pages/Press%20Releases/PR104.aspx
[2596] Ibid.
[2597] Gavril Flores and Annalise Seguna, *Unleashing the power of AI: Crafting a roadmap to harness its benefits* (March 28, 2023),
https://timesofmalta.com/articles/view/unleashing-power-ai-crafting-roadmap-harness-benefits-a2.1022026

Public Participation

The Parliamentary Secretary for Financial Services, Digital Economy and Innovation within the Office of the Prime Minister released document "Malta towards an AI strategy: High-level document for public consultation" on 21 March 2019 and invited interested stakeholders to provide feedback until 22 April 2019. Subsequently, on August 20, 2019, Malta AI Task Force, including a diverse set of entrepreneurship, academia, public policy, technology strategy, law and data science, and the Parliamentary Secretary for Financial Services, Digital Economy and Innovation within the Office of the Prime Minister released "Malta: Towards Trustworthy AI: Malta Ethical AI Framework for Public Consultation" and invited members of the public, industry and academia to provide feedback until 6 September 2019[2598].

The Malta Digital Innovation Authority (MDIA) posted another public consultation for expanding the ITA certification framework to include AI-based solutions.[2599] However, like the other two public consultations, this consultation ran for a brief period (one month, until November 1, 2019), calling into question whether interested parties would have sufficient time to participate in a meaningful way.

Locating public consultation opportunities among the various government websites is not user friendly. The MDIA, despite its Malta.AI website, is not currently the hub for finding AI-related public consultations. No other opportunities have been listed since 2019. In its annual report however, the MDIA discusses its expanding role with regard to AI.[2600]

Data Protection

Since Malta is an EU Member State, the General Data Protection Regulation (GDPR)[2601] is directly applicable in Malta and to Maltese. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and

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[2598] https://meae.gov.mt/en/public_consultations/pages/home.aspx
[2599] MDIA, AI ITA Guidelines, MDIA Circular No. 6 (Oct. 3, 2019), https://mdia.gov.mt/wp-content/uploads/2019/10/AI-ITA-Guidelines-03OCT19.pdf .
[2600] MDIA, *Annual Report 2020*, https://mdia.gov.mt/wp-content/uploads/2021/11/MDIA-layout-final.pdf .
[2601] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

unnecessary administrative burdens."[2602] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018.[2603] The Maltese Data Protection Act 2018 (Chapter 586 of the Laws of Malta) (DPA) supplements the GDPR and took effect on 28 May 2018.

Regarding the activities of law enforcement authorities, Malta transposed the EU Data Protection Law Enforcement Directive (LED)[2604] with Subsidiary Legislation 586.08. "The directive protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[2605] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[2606] The LED also requires for Member States, including Malta, to enable data subjects to exercise their rights via national data protection authorities.[2607]

"Consistency and a high level of protection among Member States is key in order to ensure effective judicial cooperation in criminal matters and police cooperation. The LED provides for the European Data Protection Board (EDPB) [of which the Maltese data protection authority is a member] to issue guidelines, recommendations and best practices (on its own initiative or at the Commission's request) in order to ensure that the

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[2602] European Commission, *Data protection in the EU*,
https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[2603] *Personal Data Protection Code Containing provisions to adapt the national legislation to Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016*
on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC,
https://www.gpdp.it/documents/10160/0/PERSONAL+DATA+PROTECTION+CODE.pdf/96672778-1138-7333-03b3-c72cbe5a2021?version=1.0

[2604] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA,*
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[2605] European Commission, *Data protection in the EU*,
https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[2606] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[2607] Article 17 of the LED.

Member States apply the LED consistently."[2608] The EDPB has produced guidelines on the use of facial recognition technologies in the area of law enforcement.[2609] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[2610]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Malta is also a member of the Council of Europe and ratified the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[2611]

AI Oversight

Malta has two national bodies that oversee AI, the Information and Data Protection Commissioner (IDPC)[2612] and the Malta Digital Innovation

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[2608] Communication from the Commission to the European Parliament and the Council, *First report on application and functioning of the Data Protection Law Enforcement Directive (EU) 2016/680 ('LED')*, COM/2022/364 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0364&qid=1658824345764#footnote136

[2609] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

[2610] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

[2611] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[2612] Information and Data Protection Commissioner, *The IDPC's Objectives*, https://idpc.org.mt/our-office/ .

Authority (MDIA).[2613] The IDPC's task is to enforce the GDPR and Malta's Data Protection Act (DPA), while the MDIA's is to regulate "innovative technologies" while supplementing the action of other national competent authorities and acting as a hub between authorities to enhance communication. The MDIA is required to assist the IDPC in "safeguarding the data protection rights of data subjects." The MDIA was created by the Parliamentary Secretary for Financial Services, Digital Economy and Innovation, Hon Silvio Schembri, on the basis of the Malta Digital Innovation Authority Act (MDIA Act), which defines the MDIA as the lead Authority in the innovation technology sector.

More specifically, the MDIA Act establishes the MDIA as the competent authority to, inter alia:

- exercise regulatory functions regarding Innovative Technology Arrangements and related services;
- support the development and implementation of the guiding principles described in the MDIA Act; and
- establish minimum quality, compliance and security standards for any Innovative Technology Arrangements and related services.[2614]
  The various stated objectives of the MDIA cover the following:
- to harmonize practices and to facilitate the adoption of standards on Innovative Technology Arrangements in Malta in line with international norms, standards, rules and/ or laws;
- to promote, enforce ethical and legitimate criteria in the design and use of Innovative Technology Arrangements and any application, software or derivative product from it;
- to promote transparency and auditability in the use of Innovative Technology Arrangements, and any application software, or derivative product from it;
- to promote legal certainty in the application and cross-border context, and the development of appropriate legal principles for the effective application of law to Innovative Technology Arrangements; and
- to increase protection to users of Innovative Technology Arrangements, through high standards and guidelines.[2615]

[2613] *Malta Digital Innovation Authority Act (MDIA Act), Act No. XXXI of 2018,* (July 20, 2018), https://mdia.gov.mt/wp-content/uploads/2018/10/MDIA.pdf

[2614] MDIA, *Frequently Asked Questions, What Is The Purpose of the MDIA and What Functions Will it Have?*, https://mdia.gov.mt/faq/#1576660516492-13a4f293-c7c6

[2615] MDIA, *Frequently Asked Questions, What are the objectives of the MDIA?*, https://mdia.gov.mt/faq/#1576660516492-13a4f293-c7c6 .

With the enactment of the MDIA Act, Malta's purpose is to establish a "national technology assurance framework."[2616] Although the MDIA's initial focus was on distributed ledger technology to regulate and promote blockchain and cryptocurrency technology, in 2020/2021, its mandate broadened to include AI technology.[2617] With regard to the MDIA's regulatory oversight, there is only very limited evidence to date. Only one regulatory notice can be found on the MDIA's website,[2618] granting a small number (5) of systems auditor certificates.[2619]

The Office of the Information and Data Protection Commissioner (IDPC) for its part is the national body "responsible for monitoring and enforcing provisions of the GDPR and the [DPA]." The IDPC's objectives are to increase public trust and confidence in the use of personal data, ensure consistent application of the GDPR, enforce data protection rules, increase awareness, and ensure transparency and good governance, among others.[2620] The IDPC is an independent body that is granted regulatory authority through Article 11 of the DPA[2621] and is led by Commissioner Ian Deguara, appointed by Prime Minister Dr. Robert Abela in December 2020 for a five-year term in office.[2622]

The IDPC is organized into three units – legal, technical, and administrative – and employs 13 staff to implement its mandate.[2623] It also has the authority to impose administrative fines.[2624] According to its website, the IDPC has issued 87 enforcements decisions since 2020. A high-profile case involved levying a 65,000 Euro fine against C-Planet (IT Solutions) Ltd, which was held responsible for a personal data breach of over 337,000 Maltese voters.[2625]

[2616] MDIA, *Annual Report 2020*, https://mdia.gov.mt/wp-content/uploads/2021/11/MDIA-layout-final.pdf

[2617] Ibid.

[2618] MDIA, *Warnings,* https://mdia.gov.mt/warnings/

[2619] MDIA, *MDIA certifies its fifth Systems auditor (no date provided)*, Press Release, https://mdia.gov.mt/mdia-certifies-its-fifth-systems-auditor/

[2620] Information and Data Protection Commissioner, *The IDPC's Objectives*, https://idpc.org.mt/our-office /

[2621] DPA, Articles 11 and 12.

[2622] IDPC at https://idpc.org.mt/idpc-publications/appointment-of-a-new-commissioner/.

[2623] IDPC at https://idpc.org.mt/our-office/organigram/ .

[2624] DPA Article 20.

[2625] IDPC, The commissioner issues the decision on the personal data breach suffered by C-Planet (IT Solutions) Ltd, Press Release, (Jan. 17, 2022), https://idpc.org.mt/idpc-publications/idpc-issues-decision-on-cplanet-data-breach /.

Although the IDPC is an accredited member of the GPA (formerly ICDPPC) since 2003,[2626] it did not endorse the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[2627] the 2020 GPA Resolution on AI Accountability[2628] and the 2022 GPA Resolution on Facial Recognition Technology.[2629]

Malta has also several independent oversight bodies for human rights, namely: the National Commission for the Promotion of Equality, the Commission for the Rights of Persons with Disabilities and the Parliamentary Ombudsman. They are competent to oversee the impact of AI policies within their field of competences.

Algorithmic Transparency

Malta is subject to the GDPR and Convention 108+. Maltese have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[2630]

Malta's Ethical AI Framework also covers criteria for guaranteeing algorithmic transparency such as the necessity to establish measures to ensure the traceability of outcomes for decisions made based on the use of an algorithm. Users are also to be made aware in clear and easily understandable language that relevant decisions, content, advice or outcomes are the result of an algorithmic decision.

[2626] Global Privacy Assemble, *List of Accredited Members,* https://globalprivacyassembly.org/participation-in-the-assembly/list-of-accredited-members/.

[2627] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[2628] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[2629] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[2630] See Recital 63 and Article 22 of the GDPR. Article 9 c) of the Convention 108+ as well as Recital 77, *Explanatory Report, Convention 108+*, p. 24, https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[2631] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[2632]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[2633]

[2631] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[2632] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[2633] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

Smart Surveillance

Malta's Safe City pilot project in Paceville and then Marsa created using technology developed by Chinese tech giant Huawei, is considered as an example of mass surveillance technology. Former Prime Minister Joseph Muscat even referred to the potential network as "eyes in the sky".[2634] The project also attracted criticisms from UN Data Protection Rapporteur Joseph Cannataci, who doubted the legal basis on which the project was developed, and EU Commissioner for Justice Vera Jourova. "Concerns about how the data collected by Huawei would be used also contributed to widespread negative responses to the project." In January 2023, it was announced that the project was discontinued after the contract expired and the state-owned company tasked with implementing the system was dissolved.[2635]

Lethal Autonomous Weapons

Maltese government supports a legally binding instrument on lethal autonomus weapons. Malta has participated in some Convention on Certain Conventional Weapons (CCW) meetings on autonomous weapons. Malta spoke for the first time at the 2021 CCW Group of Governmental Experts on Lethal Autonomous Weapon Systems (GGE on LAWS) meeting, stating that it "remains concerned with the rapid technological advancement especially in AI, where as a result, lethal autonomous weapons systems are today capable of functioning with a lesser degree of human control or none."[2636]

In October 2022, Malta was one of 70 states that endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an international framework of rules and constraints.[2637] In this joint statement, States declared that they "are committed to upholding and strengthening

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[2634] Times of Malta, *Facial recognition CCTV in Paceville... and then Marsa* (Oct. 22, 2018), https://timesofmalta.com/articles/view/20181022/local/budget-facial-recognition-cctv-in-paceville-and-then-marsa.692306

[2635] Chris Burt, *Malta deep-sixes safe city facial recognition project after Huawei contract expires* (Jan. 9, 2023), https://www.biometricupdate.com/202301/malta-deep-sixes-safe-city-facial-recognition-project-after-huawei-contract-expires

[2636] Automated Decision Research, *Malta*, https://automatedresearch.org/news/state_position/malta

[2637] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly,* (2022) https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[2638]

In February 2023, Malta participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Malta, together with other countries, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[2639] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[2640]

Human Rights

According to the Freedom House, Malta is a "free" country with a score of 89, a slight downgrade from 2021. "Malta is a parliamentary democracy with regular, competitive elections and periodic rotations of power. Civil liberties are generally respected. New and smaller political

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[2638] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw 9WYcSnnAm_en.pdf.

[2639] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

[2640] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

parties encounter difficulties in challenging the dominance of the two main parties, and official corruption is a serious problem." [2641]

Malta is a Member State of the Council of Europe (CoE) and of the United Nations and thus has human rights obligations at the regional and universal levels.

As a Member of the CoE, Malta is a party to and under obligation to abide by the European Convention on Human Rights and is subject to the jurisdiction of the European Court of Human Rights and the monitoring of the Council of Europe treaty bodies. Its human rights policies and practices are also monitored by the CoE Commissioner for Human Rights.

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."

As a UN Member State, Malta is subject to the oversight of various UN human rights bodies, including the Human Rights Council and its Universal Periodic Review and thematic special procedures.

OECD / G20 AI Principles

Malta is not a member of the OECD.[2642] While Malta has not officially endorsed the OECD AI principles,[2643] Maltese National AI Strategy emphasizes that Malta's Ethical AI Framework, *Towards Trustworthy AI* builds on the OECD AI Principles. The so called AI Framework explicitly states that particular attention was given to ensuring that the Ethical AI Framework was aligned with OECD AI Principles. The

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[2641] Freedom House, *Freedom in the World Report 2022 - Malta*, https://freedomhouse.org/country/malta/freedom-world/2022 .

[2642] OECD, *List of OECD Member Countries*, https://www.oecd.org/about/members-and-partners/

[2643] OECD, *Forty-Two Countries Adopt New OECD Principles on Artificial Intelligence* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

OECD AI Policy Observatory also considers, "Inclusive growth, sustainable development and well-being; human-centred values and fairness; robustness, security and safety; accountability; fostering a digital ecosystem for AI; providing an enabling policy environment for AI; international co-operation for trustworthy AI" are the OECD AI principles addressed within these two instruments[2644].

UNESCO Recommendation on the Ethics of Artificial Intelligence

Malta is a UNESCO member state since 1965 and is amongst the 193 Member States which adopted the UNESCO Recommendation on the Ethics of Artificial Intelligence. It remains to be seen how Malta will implement the Recommendation in practice.

Evaluation

Malta's goal is to become the "ultimate AI launchpad." Malta has developed a national AI strategy with a strong trustworthy AI pillar and the country benefits from a comprehensive European and national data protection legal regime. Despite all this, it is puzzling that a smart city project with AI-powered surveillance features had been on-going for the last 5 years in total impunity. Although the project has been discontinued when it arrived at expiration in January 2023, this speaks to the necessity for the EU AI Act to provide for a ban on the use of facial recognition in public spaces.

[2644] https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-24994; https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-24993

Mauritius

National AI Strategy

Mauritius became one of the first African countries to publish a national AI strategy in 2018.[2645] The strategy reflects the country's aim to promote and utilize AI in improving growth, productivity, and quality of life, with recommendations for the achievement of these goals. The strategy provides a roadmap for the development of AI in the country with a focus on key areas through the identification of sectors and national projects that can leverage AI, capacity-building and skill development, AI ethics, partnerships for emerging technologies, awareness campaigns, and adoption of AI in public services. The Economic Development Board and the Ministry of Finance and Economic Development[2646] are responsible for piloting the strategy.

The AI projects identified for implementation fall in the manufacturing, health, agriculture, and FinTech sectors. As recommended by the Strategy, Mauritius established an AI Council composed of experts whose primary role is to advise the Government on ways to support the country's AI ecosystem. The Strategy also urges the government to create a regulatory environment for AI, consisting of a framework on ethics and data protection, and the provision of grants and tax credits to encourage investment in AI.

.[2647] According to the Africa Policy Institute (Afripoli), Mauritius' digital strategy focuses on five waves, one of which is the review of the existing legal frameworks to support AI and robotics developments.[2648] The UN e-government survey report highlights the efforts of Mauritius to align the Digital Government Transformation Strategy with the Public Sector Business Transformation Strategy, and the appointment of a High-Level

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[2645] Government of Mauritius, *Mauritius Artificial Intelligence Strategy* (Nov. 2018), https://ncb.govmu.org/ncb/strategicplans/MauritiusAIStrategy2018.pdf

[2646] OECD.AI, *AI policies in Mauritius* (2023), https://oecd.ai/en/dashboards/countries/Mauritius

[2647] African Union, *AU Data Policy Framework* (Feb. 2022), https://au.int/sites/default/files/documents/42078-doc-AU-DATA-POLICY-FRAMEWORK-ENG1.pdf

[2648] Africa Policy Institute (AfriPoli), *AI in Africa: Key Concerns and Policy Considerations for the Future of the Continent* (May 30, 2022), https://afripoli.org/ai-in-africa-key-concerns-and-policy-considerations-for-the-future-of-the-continent

Digital Government Task Force for oversight and reporting.[2649] Mauritius' policy efforts align with the commitments it took as a member of the African Union, notably the AU digital transformation strategy[2650] and the Continental Data Policy Framework.[2651]

Public Participation

Mauritius includes a framework for public participation in its laws. The country's Constitution[2652] makes it mandatory for the legislature to create avenues for public participation in the law-making process. Accordingly, it provides citizens with the right to participation, freedom of association, and expression.[2653]

The Digital Government Survey of 2018 reported a significant lack of involvement of citizens in national issues and policy discussions.[2654] Recommendations in the Digital Government Transformation Strategy were the "provision of digital platforms for integrating citizens and other stakeholder views in government decision-making processes,"[2655] engagement by Ministries / Government departments with the public and dissemination of information to inform decision-making, as well as the release of Open Data, "as a means to achieve transparency in public sector operations."[2656] Accordingly, the government established the Citizen Support Portal.[2657] The Portal is an e-participation and e-decision-making platform meant to enable government to engage with citizens. The platform is intended to "handle citizen complaints, monitor complaints, and inform citizens on Government policies."[2658] The platform is supported by 35

[2649] United Nations, *E-Government Survey 2022* (2022), https://desapublications.un.org/sites/default/files/publications/2022-09/Web%20version%20E-Government%202022.pdf

[2650] African Union, *The Digital Transformation Strategy for Africa (2020-2030),* https://au.int/sites/default/files/documents/38507-doc-dts-english.pdf

[2651] African Union, *40th Ordinary Session of the Executive Council* (Feb 2-3, 2022), https://au.int/sites/default/files/decisions/41584-EX_CL_Dec_1143-1167_XL_E.pdf

[2652] The Constitution of the Republic of Mauritius Amendment, 2003 (Act 124 of 2003).

[2653] Section 48, Constitution of the Republic of Mauritius Amendment, 2003 (Act 124 of 2003).

[2654] Republic of Mauritius, *Digital Government Transformation Strategy (2018-2022),* https://cib.govmu.org/Documents/Reports/Digital%20Government%20Strategy%202018-2022.pdf

[2655] Ibid.

[2656] Ibid.

[2657] Republic of Mauritius, *Citizen Support,* (2022), https://www.csu.mu/index.php

[2658] Republic of Mauritius, *Digital Government Transformation Strategy (2018-2022),* https://cib.govmu.org/Documents/Reports/Digital%20Government%20Strategy%202018-2022.pdf

Citizen Advice Bureaus placed across the country, to facilitate access to computers or the Internet to citizens who do not have these means.[2659]

In the UN E-government survey 2020, Mauritius had moved to first place in Africa, 63rd in the world, and 45th globally in the open data index, and was recognized as a model digital government.[2660] The most recent e-Government Survey of 2022, ranked Mauritius as the 2nd top nation in Africa and 75th out of 193 countries in the world, in terms of the e-Government development index (EGDI).[2661]

In January 2023, the Data Protection Office organized a conference "Protecting Personal Data across All Economic Sectors" on the occasion of Data Protection Day[2662]. Privacy rights, accountability, and protection against government surveillance were part of the agenda.

Data Protection

Mauritius is among the first African countries which enacted a new law, the Data Protection Act, 2017 (DPA)[2663] in line with the European General Data Protection Regulation EU 2016/679 (GDPR)[2664] and repealing the previous Data Protection Act 2004. The DPA came into force on January 15, 2018.[2665]

The DPA aims to enhance data subjects' control over their personal data and individual autonomy.[2666] Unlike the GDPR, the DPA does not have any extra-territorial effect. The DPA[2667] covers " the processing of personal

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[2659] Republic of Mauritius, *List of Citizens Advice Bureaus,* (2023). https://www.csu.mu/map-of-cab-offices-offering-cep-services

[2660] Central Informatics Bureau, *UN e-Government Survey 2020. Mauritian Perspective* (Jun. 21, 2020). https://cib.govmu.org/Documents/Reports/Mauritius%20Perspective-%20UN%20e-Gov%202020.pdf

[2661] United Nations, *UN E-Government Knowledgebase-Mauritius* (2023). https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/109-Mauritius

[2662] The Data Protection Office, *Conference on Protecting Personal Data Across all Economic Sectors* (Jan. 30, 2023), https://dataprotection.govmu.org/SitePages/SliderReadMore.aspx?IDS=54

[2663] Parliament of Mauritius, *The Data Protection Act 2017*, https://rm.coe.int/dpa-2017-maurice/168077c5b8

[2664] Data Guidance, *Mauritius- Data Protection Overview.* https://www.dataguidance.com/notes/mauritius-data-protection-overview

[2665] The Data Protection Office. *Data Protection Act 2017* (Dec 22, 2017) https://dataprotection.govmu.org/Pages/The%20Law/Data-Protection-Act-2017.aspx

[2666] The Office of the United Nations High Commissioner for Human Rights, *Mauritius*, https://www.ohchr.org/sites/default/files/documents/issues/digitalage/reportprivindigage2022/submissions/2022-09-06/CFI-RTP-Mauritius.docx

[2667] The Data Protection Office, *Data Protection Act 2017,* (Dec 22, 2017), https://dataprotection.govmu.org/Documents/DPA_2017_updated.pdf?csf=1&e=0rlrff

data, wholly or partly by automated means." Section 21 of the DPA[2668] enshrines provisions regarding the lawful, fair, and transparent processing of data, the right to erasure and rectification, and the observance of the rights of data subjects. Section 34 provides for the right to privacy within the "principles of lawfulness, necessity, and proportionality in a democratic society". The DPA requires a Data Protection Impact Assessment ex-ante, to assess if the processing has the potential to result in "high risk to the rights and freedoms of data subjects by virtue of their nature, scope, context, and purpose."[2669] The Assessment shall include:

1. Purposes and the legitimate interest of the processing
2. Necessity and proportionality
3. Risks to the rights and freedoms of data subjects
4. Measures to address risks; safeguards.

The DPA has been criticized for providing no limitations regarding the use of new technologies, including AI,[2670] thus raising privacy and ethical concerns if no impact assessment is conducted.[2671]

The Data Protection Office (DPO)[2672] is the supervisory authority responsible for protecting the privacy rights of individuals since 2009. The DPO offers e-services ranging from Data Protection Impact Assessments, compliance audits, certifications, transfer of personal data abroad, and notifications of a personal data breach. One of the functions of the Data Protection Commissioner, as per Article 5 of the DPA, is to examine any proposal for automated decision-making that may result in adverse effects on the privacy of individuals.[2673]

Mauritius' Data Protection Commissioner since 2007 is Ms. Drudeisha Madhub. Ms. Madhub contributed to the reform of Mauritius'

[2668] OHCHR Office of the High Commissioner for Human Rights, *Rights to Privacy in the Digital Age CFI-RTP,* (Sept 2022), https://www.ohchr.org/sites/default/files/documents/hrbodies/hrcouncil/forums/forum-demoracy-ruleoflaw/2022/submissions/2022-10-10/submission-DF2022-state-mauritius.pdf

[2669] Ibid., p.4.

[2670] The Office of the High Commissioner for Human Right, *States, Mauritius*, https://www.ohchr.org/Documents/Issues/DigitalAge/Submissions/States/Mauritius-1.docx.

[2671] Mauritius Institute of Directors, *Position Paper 8, Guiidelines for the Audit Committee on Data Protection* (2020), https://assets.kpmg/content/dam/kpmg/mu/pdf/2020/mu-ACF-Position-Paper-8.pdf.

[2672] The Data Protection Office, *About the Office,* https://dataprotection.govmu.org/Pages/About%20Us/About-the-Office.aspx

[2673] The Data Protection Office, *Data Protection Act 2017* (Dec 22, 2017), https://dataprotection.govmu.org/Documents/DPA_2017_updated.pdf?csf=1&e=0rlrff

data protection legislation and in the Southern Mediterranean region, including with regard to the negotiations with the EU to achieve adequacy.[2674] Despite the DPO's action at national and international level, the DPO has not endorsed the Global Privacy Assembly's 2018 Declaration on Ethics and Data Protection in Artificial Intelligence,[2675] 2020 Resolution on Accountability in the Development and Use of Artificial Intelligence, [2676] and 2022 Declaration on Facial Recognition Technology.[2677]

The DPO has issued several Guidelines regarding the DPA,[2678] including AI solutions in the context of the COVID-19 pandemic [2679]and a Code of Practice[2680] to ensure that the Mauritius Police Force is compliant with the DPA when it operates the Safe City surveillance systems. In a report by the UN Rights Committee of 2021, Mauritius was found in violation of citizens' privacy rights due to the lack of assurance of protection of the biometric data stored in the National Identity Card.[2681]

[2674] The Data Protection Office, *Data Protection Commissioner,* https://dataprotection.govmu.org/Pages/Home%20-%20Pages/Upcoming%20Events/The-Data-Protection-Commissioner.aspx

[2675] International Conference of Data Protection & Privacy Commissioners, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[2676] Global Privacy Assembly (GPA), *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[2677] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition technology* (Oct 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[2678] Data Protection Office, *Guidelines Protection Act 2017,* https://dataprotection.govmu.org/Pages/Downloads/Guidelines-Data-Protection-Act-2017.aspx.

[2679] Ibid.

[2680] Government Portal of Mauritius, *Code of Practice for the Operations of Safe City Systems by MPF*, https://dataprotection.govmu.org/Documents/Code%20of%20Practice%20for%20the%20operation%20of%20the%20Safe%20City%20System%28s%29%20by%20MPF.PDF.

[2681] UN Human Rights, Office of the High Commissioner *Mauritius: Storing biometric data on identity cards violates privacy- UN Human Rights Committee* (2021) https://www.ohchr.org/en/press-releases/2021/07/mauritius-storing-biometric-data-identity-cards-violates-privacy-un-human?LangID=E&NewsID=27329

In 2018, Mauritius ratified[2682] the African Union Convention on Cyber Security and Personal Data Protection (Malabo Convention)[2683]. The collaboration with European Union led the Ministry of Information Technology, Communication, and Innovation (MITCI) to initiate the Cyber Resilience for Development Project (Cyber4D) project in 2018.[2684] In April of that year, the country signed the Commonwealth Cyber Declaration on the occasion of the Commonwealth Heads of Government Meeting (CHOGM).[2685] The parties to the Declaration acknowledged the importance of agreeing on common standards, strengthening data protection and security, and affirmed that "the same rights that citizens have offline must be also protected online."

In 2021, the MITCI submitted to Parliament and achieved the enactment of the new Cybersecurity and Cybercrime legislation[2686], in alignment with the Council of Europe tenets and other international conventions. Mauritius is a *priority country* in the CoE "Global Action on Cybercrime Extended Project (GLACY+)" which seeks to strengthen States' capabilities in the formulation of cybercrime legislation[2687]. However, the cybercrime legislation does not specifically address personal data protection or algorithm transparency as a fundamental right.

In 2021, the Government proposed to amend the Information and Communication Technologies (ICT) Act seeking to regulate the misuse and abuse of social media. The Information and Communication Technologies

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[2682] African Union, *List of Countries which have signed, ratified/acceded to the African Union Convention on Cyber Security and Personal Data Protection* (Mar. 25, 2022), https://au.int/sites/default/files/treaties/29560-sl-AFRICAN_UNION_CONVENTION_ON_CYBER_SECURITY_AND_PERSONAL_DATA_PROTECTION.pdf

[2683] African Union, *African Union Convention on Cybersecurity (Malabo Convention)* (Jun. 27, 2014), https://au.int/en/treaties/african-union-convention-cyber-security-and-personal-data-protection

[2684] Ministry of Information Technology, Communication and Innovation (MITCI), *Speech of Hon. Deepak Balgobin.* African Cyber Resilience conference by the Cyber Resilience for Development Project (EU) (Apr 25, 2022), https://mitci.govmu.org/Documents/Speeches/2022/Hon.%20D%20Balgobin's%20Speech%20-%20African%20Cyber%20Resilience%20Conference%20-%2025.04.22.pdf

[2685] The Commonwealth, *Commonwealth Cyber Declaration, 2018.* (2018). https://thecommonwealth.org/commonwealth-cyber-declaration-2018

[2686] Government Gazette of Mauritius No. 173 of 24 November 2021, *The Cybersecurity and Cybercrime Act 2021,* https://ncb.govmu.org/ncb/legislations/THE%20CYBERSECURITY%20AND%20CYBERCRIME%20ACT%202021.pdf

[2687] Council of Europe, *Global Action on Cybercrime Extended (GLACY)+* (2023), https://www.coe.int/en/web/cybercrime/glacyplus

Authority launched a public consultation,[2688] which generated concerns among free expression advocates locally and internationally.[2689] While the proposed amendment largely targeted communications that are protected under Article 12 of Mauritius' Constitution, such an amendment would have allowed the government to set proxy servers with the capability to decrypt social media posts interfering with the provisions of the DPA which affords data privacy and protection. Ultimately, the government retracted the proposed amendment to the ICT Act.

On 22 February 2022, Mauritius signed a Joint Declaration[2690] on privacy and the protection of personal data with the European Union, Australia, Comoros, India, Japan, New Zealand, Singapore, South Korea, and Sri Lanka, with the aim to promote core safeguards relating to automated decision-making such as transparency and the possibility to challenge the outcome of an automated decision.

Algorithmic Transparency

On September 4, 2020, Mauritius became the first African country to ratify the Convention 108+ which sets a right to algorithmic transparency.[2691] Section 38 of the DPA addresses the rights of an individual not to be subject to automated decision making, including profiling, that results in legal effects for the subject. This section establishes that automated processing for evaluation 'shall not be based on special categories of personal data', and must include safeguards for the "rights, freedoms, and legitimate interests' of the subject.[2692]

[2688] Information and Communication Technologies Authority, *Social Media Consultation* (2021), https://www.icta.mu/comm-social-media-consult/

[2689] Electronic Frontier Foundation, *Proposed New Internet Law in Mauritius Raises Serious Human Rights Concerns* (Apr. 2021), https://www.eff.org/deeplinks/2021/04/proposed-new-internet-law-mauritius-raises-serious-human-rights-concerns.

[2690] European Union, *Joint Declaration on Privacy and Protection of Personal Data,* (Feb. 23, 2022), https://www.eeas.europa.eu/eeas/joint-declaration-privacy-and-protection-personal-data_en#:~:text=*This%20Joint%20Declaration%20was%20issued,by%20the%20Philippines%2C%20Thailand%20and

[2691] Council of Europe, *Convention 108+: signature and ratification by Mauritius* (Sept. 20, 2020), https://www.coe.int/en/web/data-protection/-/convention-108-signature-and-ratification-by-mauritius

[2692] The Data Protection Office, *Data Protection Act 2017* (Dec 22, 2017), https://dataprotection.govmu.org/Documents/DPA_2017_updated.pdf?csf=1&e=0rlrff

Facial Recognition and Smart Cities

Mauritius' National AI Strategy states that AI is essential to help improve public safety, which is also echoed in Mauritius' Vision Strategic Plan 2030[2693] and the Digital Government Transformation Strategy.[2694] Already underway, the Safe City Project is set to include the installation of a Safe City infrastructure comprised of a total of 4000 surveillance cameras (Intelligent Video Surveillance –IVS) with built-in facial recognition capabilities once it is completed.[2695] Huawei Technologies Co, Ltd, the Chinese Information Communication Technology giant with an almost two-decades-old presence in Mauritius in partnership with Mauritius Telecom, provided the AI-powered technology,[2696] which has the capability of generating alarms when it detects suspicious personnel.[2697] The Carnegie Endowment for Peace study on AI surveillance reported this exclusive surveillance contract for smart policing with Huawei to be the result of a commitment of Mauritius to access long-term financing from China.[2698]

The Safe City Project was designed to make Mauritius the first African country with integrated safety and intelligence and uses facial recognition technology for mass surveillance on public roads. By 2020 2,761 IVS cameras were installed across more than 1,400 sites in Mauritius. Additionally, the plan includes 300 Intelligent Traffic Surveillance to monitor illegal offenses using facial images of individuals[2699] out of which 140 were functional by 2020 in 68 main roads and motorways.[2700]

[2693] Government Portal of Mauritius, *Strategic Plans, Digital Mauritius 2030,* https://ncb.govmu.org/ncb/strategicplans/DigitalMauritius2030.pdf.

[2694] Government Portal of Mauritius, *Communique,* https://govmu.org/EN/communique/Pages/Vision-2030.aspx.

[2695] Government Portal of Mauritius, *News, Safe City Project Expected to Be Operational by the End of December 2019*, http://www.govmu.org/English/News/Pages/Safe-City-Project-expected-to-be-operational-by-end-of-December-2019.aspx

[2696] Huawei, *Building a safe Mauritius, the inspiration of heaven* https://e.huawei.com/topic/leading-new-ict-ru/mauritius-safecity-case.html.

[2697] Ibid.

[2698] Carnegie Endowment for International Peace, *The Global Expansion of AI Surveillance* (Sept. 2019), https://carnegieendowment.org/files/WP-Feldstein-AISurveillance_final1.pdf

[2699] OHCHR, *Submissions: Mauritius 1,* *https://www.ohchr.org/Documents/Issues/DigitalAge/Submissions/States/Mauritius-1.docx*

[2700] Government Portal of Mauritius, Information Service, *Safe City 2761 Intelligent Video Surveillance cameras already installed* (Aug. 11, 2020), http://www.govmu.org/English/News/Pages/Safe-City-2-761-Intelligent-Video-Surveillance-cameras-already-installed.aspx

In 2020, members of the Parliament raised concerns about the effectiveness of data protection safeguards because the Prime Minister exempted the Safe City Project from the DPA, under Section 44 of the DPA, evoking national security grounds. As a result, the Government released a Code of Practice[2701] for the operation of the Safe City Systems by the Mauritius Police Forces in accordance with the provisions of the DPA 2017. Mauritius' Prime Minister stated that no biometric data has been collected because the AI technology is not yet operational and reiterated that the Safe City project is aligned with Section 44 of the DPA 2017.[2702]

The Safe City pilot falls under the jurisdiction of the Mauritius Police Force, under the Prime Minister's Office, but the responsibilities for the data of this project were opaque from the onset.[2703] The Hoover Institution warned about the risks for "political control, manipulation, and oppression" resulting from surveillance projects, and calls for checks and balances by the Mauritian Parliament, National Audit Office, and media to ensure that the public interest in projects of this magnitude is a priority.

Biometrics

Upon reaching the age of 18, all Mauritius citizens must apply for an identity card which they must carry on them.[2704] Mauritius launched its first identity card scheme under the National Identity Card Act, Act 60 of 1985.[2705] The Finance (Miscellaneous Provisions) Act 2009 and the 2013 National Identity Card (Miscellaneous Provisions) Act[2706] later amended the 1985 Act to introduce a new smart biometric ID card scheme which mandates the Government to store data including fingerprints and calls for

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[2701] Government Portal of Mauritius, *Code of Practice of Safe City Systems by the MPF* (2020), https://dataprotection.govmu.org/Documents/Code%20of%20Practice%20for%20the%20 operation%20of%20the%20Safe%20City%20System%28s%29%20by%20MPF.PDF.

[2702] Mauritius News, *Surveillance Cameras : Facial Recognition Not Yet Operational* (Dec. 2021), https://mauritiushindinews.com/ion-news/surveillance-cameras-facial-recognition-not-yet-operational/.

[2703] Hoover Institution, *The Trappings of the Mauritius Safe City Project* (2022), https://www.hoover.org/sites/default/files/research/docs/kasenally_webreadypdf-compressed.pdf

[2704] Government Portal of Mauritius, *Mauritius National Id Card* (2019), *https*://mnis.govmu.org/Pages/Index.aspx#:~:text=The%20Mauritius%20National%20ID %20Card,1985%20National%20Identity%20card%20Act.

[2705] The National Identity Act, Act 60 of 1985, https://mnis.govmu.org/DocumentsList/NATIONAL%20IDENTITY%20CARD%20AC T,%20NO%2060%20OF%201985.pdf.

[2706] The 2013 National Identity Card (Miscellaneous Provisions) Act, https://mauritiusassembly.govmu.org/Documents/Acts/2013/Act1813.pdf.

stiffer penalties against identity fraud[2707] to deter multiple ID card applications using fake information.

The new 2013 National Identity Card scheme led to a constitutional challenge, *Madhewoo v The State of Mauritius, and another,*[2708] which reached the Supreme Court of Mauritius as citizens of Mauritius feared misuse of their personal data for Government mass surveillance. The Supreme Court held that although the smart ID card scheme interfered with the plaintiff's right to privacy under Section 9(1) of the Constitution, the application of the 2013 Act was permissible under Section 9(2) because the right to privacy is not absolute and interference with that right is permissible in the interest of public order. However, the Court held that the storage of the data was not adequately secured because of the lack of safeguards as provided under the DPA. In response, the Mauritius Government issued the National Identity Card (Amendment, Civil Identity Register) Regulations 2015[2709] which erases the biometric data once the ID card has been issued.

In 2016, the Judicial Committee of the Privy Council confirmed the 2015 judgment of the Supreme Court of Mauritius.[2710] Subsequently, the plaintiff filed a UN human rights complaint. On July 21, 2021, the UN Human Rights Committee shared the views of the Committee according to which the mandatory storing of biometric data interfered with the plaintiff's right to privacy since it relates to data storage and retention contrary to Article 17 of the International Covenant on Civil and Political Rights[2711] to which Mauritius is a party. The Committee found that the Government failed to set appropriate measures to protect the stored data against the risk of arbitrariness and abuse and must take steps to avoid similar violations. Mauritius was given 180 days to report back to the Committee with the actions taken to give effect to the Committee's views and to publish them broadly in the official language of Mauritius. To date, there are no official reports about any action planned by Mauritius to address the UN report.

[2707] Government Portal of Mauritius, *Mauritius National Identity Card Unit*, (2019) https://mnis.govmu.org/Pages/Index.aspx

[2708] *Madhewoo v The State of Mauritius and another* (Oct., 2016), https://www.jcpc.uk/cases/docs/jcpc-2016-0006-judgment.pdf.

[2709] Government Portal of Mauritius, *Communiques* (2020), https://govmu.org/EN/communique/Pages/default.aspx

[2710] The Judicial Committee of the Privy Council Decisions, *Judgment, Madhewoo v The State of Mauritius and another* (Oct. 2016), https://www.jcpc.uk/cases/jcpc-2016-0006.html

[2711] UN Human Rights, Office of the High Commissioner *Mauritius: Storing biometric data on identity cards violates privacy- UN Human Rights Committee* (mo, 2021) https://www.ohchr.org/en/press-releases/2021/07/mauritius-storing-biometric-data-identity-cards-violates-privacy-un-human?LangID=E&NewsID=27329.

A 2021 OHCHR report also pointed to the use of AI for profiling and automated decision-making by Intelligent agencies in Mauritius despite the regulations of Section 9 of the Constitution. The deployment of AI across four areas: (1) public safety video and image analysis, including the use of CCTVE audio recording; (2) DNA Analysis powered by AI; (3) Forensic application of Facial Identification Techniques (FITS) and (4) Crime forecasting through the Intelligent Video Surveillance (IVS).[2712]

Lethal Autonomous Weapons

Mauritius ratified the Convention on Certain Conventional Weapons (CCW) in 1993 and has participated in some CCW meetings on autonomous weapons systems. As a member of the Non-Aligned (NAM) and the African Union, Mauritius supports the negotiation of a legally binding instrument on autonomous weapons systems to ensure that the weapons respect human rights and remain accountable.[2713] The African Group in 2021 stressed the "ethical, legal, moral, and technical questions" raised by the use of autonomous weapons systems and urged for concrete policy recommendations to be adopted including prohibitions and regulations.[2714]

Human Rights

The Freedom House's 2022 *Freedom in the World* report ranks Mauritius as a 'free' country in terms of protection of human rights, with a score of 86/100.[2715] The country has a strong ranking for the protection of political rights and civil liberties. The Ibrahim Index of African Governance scores Mauritius 1st out of 54 countries in Africa for 2021, with a score of 74.8% for Participation, Rights, and Inclusion, and 76.3/100. for overall governance.[2716]

[2712] OHCHR, *Submissions: Mauritius 1,*
https://www.ohchr.org/Documents/Issues/DigitalAge/Submissions/States/Mauritius-1.docx

[2713] United Nations, Office of Disarmament Affairs, *Convention on Prohibition or Restriction on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects* (2021),
https://documents.unoda.org/wp-content/uploads/2020/07/CCW_GGE1_2020_WP_7-ADVANCE.pdf.

[2714] Statement by the African Group, CCW Group of Governmental Experts meeting on LAWS (Dec 3, 2021), http://149.202.215.129:8080/s2t/UNOG/LAWS3-03-12-2021-AM_mp3_en.html

[2715] Freedom in the World 2022, *Mauritius*
https://freedomhouse.org/country/mauritius/freedom-world/2022

[2716]Ibrahim Index of African Governance, *Rwanda, 2021, Overall Governance,* https://iiag.online/data.html?loc=RW&meas=GOVERNANCE

Mauritius has a comprehensive framework on human rights, as a member of the United Nations and a signatory of the Universal Declaration of Human Rights. Mauritius has also ratified the International Covenant on Civil and Political Rights (ICCPR), the International Covenant on Economic and Social Cultural Rights (ICESR), and the Convention on Cybercrime (Budapest Convention).[2717] Mauritius enacted the Protection of Human Rights Act 1998 that creates a national framework for the protection of human rights.[2718] The Act establishes the National Human Rights Commission whose mandate is to protect human rights and investigate complaints regarding human rights violations.

In 2018, the UN Human Rights Council, Universal Periodic Review of Mauritius, highlighted the country's efforts to develop human rights indicators, which were integrated systematically into national implementation and monitoring plans.[2719] Mauritius issues periodic reports on the implementation of the African Charter on Human and People's Rights, the latest in March 2016 for the period 2009-2015.[2720]

OECD / G20 AI Principles

Mauritius is not a member of the OECD or the G20 and has not endorsed the OECD AI Principles[2721] or the G20 AI Guidelines.[2722] The OECD AI Observatory reports the strides of the government of Mauritius in the field of AI policy[2723] with the release of the AI Strategy and the

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[2717] OHCHR Office of the High Commissioner for Human Rights, *Mauritius. CFI-RTP* (Sept 2022),https://www.ohchr.org/sites/default/files/documents/issues/digitalage/reportprivindigage2022/submissions/2022-09-06/CFI-RTP-Mauritius.docx

[2718] International Labour Organization, *The Protection of Human Rights Act 1998,* https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/69100/67757/F21666391/MUS69100.pdf

[2719] United Nations, *UN Human Rights in Southern Africa* (2019), https://www.ohchr.org/en/countries-and-territories/africa-region/un-human-rights-southern-africa

[2720] Republic of Mauritius- Prime Minister's Office, *Sixth to Eighth Combined Periodic Report of the Republic of Mauritius on the Implementation of the African Charter on Human and Peoples' Rights. (May 2009-Dec 2015),* (Mar 2016), https://www.achpr.org/public/Document/file/English/staterep6_mauritius_2009_2015_eng.pdf

[2721] OECD, *Recommendations of the Council on Artificial Intelligence* (Jun. 2019), https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449

[2722] OECD, *G20 AI Principles* (Jun. 2021), https://wp.oecd.ai/app/uploads/2021/06/G20-AI-Principles.pdf

[2723] OECD.AI, *AI policies in Mauritius* (2023), https://oecd.ai/en/dashboards/countries/Mauritius

establishment of an AI Council. The Mauritius AI strategy addresses six OECD AI principles: (1) inclusive growth, sustainable development, and well-being; (2) Human-centered values and fairness, (3) Robustness, security, and safety, (4) Fostering a digital ecosystem for AI, (5) Providing an enabling policy environment for AI, and (6) Building human capacity and preparing for labor market transitions.[2724]

At the International Conference on Digital Economy & Digital Banking held in Mauritius in October 2022, Mauritius' Prime Minister, Pravind Kumar Jugnauth, reiterated the government's engagement to continue to foster collaboration with international institutions, especially with the OECD, with the aim to promote Mauritius as a "Development Model in Africa."[2725] The Prime Minister shared Mauritius's determination to become a member of the OECD. Mauritius will be one of the guest countries invited to attend the G20 summit in Delhi, India in September 2023.[2726]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Mauritius is a member state of UNESCO since 1968[2727] and one of the 193 countries which endorsed the UNESCO Recommendation on the Ethics of AI (UNESCO Recommendations) on November 21, 2021.[2728]

In 2022, Mauritius attended the UNESCO-Southern Africa Sub-Regional Forum on AI (SARFAI 2022) held in Windhoek, Namibia in September 2022. Discussions concerned the Ethical Impact Assessment and Readiness Assessment Methodologies in the framework of the implementation of the UNESCO Recommendation. Mauritius was not a participant in the session. The co-hosts of SARFAI 2022 (Botswana, Malawi, Mozambique, Namibia, South Africa, Zambia and Zimbabwe) approved the Windhoek Statement on Artificial Intelligence in Southern Africa,[2729] which calls for the establishment of a Southern African

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[2724] OECD.AI, *Mauritius AI Strategy* (2018), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27393

[2725] Economic Development Board, *Mauritius – OECD: Unleashing New Pathways for Development* (2022), https://www.edbmauritius.org/newsroom/mauritius-oecd-unleashing-new-pathways-development#:~:text=The%20two%2Dday%20conference%20themed,Le%20Meridien%2C%20Pointe%20aux%20Piments.

[2726] Policy Circle, *G20 Presidency: India Must Focus on Climate Action, Malnutrition* (2022), https://www.policycircle.org/diplomacy/g20-india-climate-change/

[2727] UNESCO, *Countries: Mauritius.* (n.d.) https://en.unesco.org/countries/mauritius

[2728] UNESCO, *Recommendations on the Ethics of Artificial Intelligence* (Nov, 2021), https://unesdoc.unesco.org/ark:/48223/pf0000380455

[2729] UNESCO¸*Windhoek Statement on Artificial Intelligence in Africa* (Sept 2022), https://unesdoc.unesco.org/ark:/48223/pf0000383197/PDF/383197eng.pdf.multi

coordination mechanism for the implementation of the UNESCO Recommendation on the Ethics of AI. These state members of the South African Development Community (SADC), including Mauritius, are set to submit the Declaration to the 2023 Joint Meeting of SADC Ministers responsible for Education and Training and Science, Technology, and Innovation, for discussion and adoption. The most recent UNESCO AI Needs Assessment Survey did not include any report or statistic about Mauritius.[2730]

Evaluation

Undoubtedly, Mauritius is one of the few African countries making significant strides toward the Fourth Industrial Revolution. Mauritius has endorsed the UNESCO Recommendation on the Ethics of AI, developed a national AI strategy, upgraded its data protection legal regime and ratified the Council of Europe's Convention 108+. Yes, concerns remain with regard to widespread AI-powered surveillance practices that Mauritius has now all the tools to address.

[2730] UNESCO, *Artificial intelligence needs assessment survey in Africa* (2021), https://unesdoc.unesco.org/ark:/48223/pf0000375322

Mexico

National AI Strategy

In 2018, Mexico became the first Latin American country to announce a national AI strategy. The Office of the Mexican President under the former Peña Nieto administration together with the United Kingdom's Embassy in Mexico City commissioned a readiness assessment and policy report: Towards an AI Strategy in Mexico: Harnessing the AI Revolution.[2731]

The report provides a preliminary outline of how Mexico should become a leader in AI. Mexico's manufacturing-centric economy, the report argues, faces grave risks amid growing automation and should take a clear, strategic position in developing AI. The report sets out five thematic areas: governance, government, and public services; research and development; capacity, skills, and education; data infrastructure; and ethics and regulation.

Within the category of ethics and regulation, the report recommends that the Mexican government bring data assets inside the scope of Mexican competition law (COFECE) in recognition of the fact that data is a competitive asset. The report also calls for the creation of an AI Ethics Council which would "set guidelines and limits which reflect Mexican Values" and "award a quality mark for AI companies who abide by the standards."[2732]

On this basis, in March 2018, the Office of the President launched Mexico's AI Strategy 2018. The Strategy sets out five key actions for the Mexican government: develop an inclusive governance framework; identify the needs of AI in industry; open the recommendations of the readiness assessment and policy report for public consultation; support Mexico's AI leadership in international forums; and promote continuity through changing administrations, by working with all interested stakeholders towards an official AI National Policy.[2733]

[2731] British Embassy of Mexico City, Oxford Insights, C Minds, *Hacia una Estrategia de IA en México: Aprovechando la Revolución de la IA* (June 2018), https://7da2ca8d-b80d-4593-a0ab-5272e2b9c6c5.filesusr.com/ugd/7be025_ba24a518a53a4275af4d7ff63b4cf594.pdf; Oxford Insights, *Towards an AI Strategy in Mexico: Harnessing the AI Revolution* (June 2018) https://www.oxfordinsights.com/mexico.

[2732] Ibid.

[2733] CAF-Development Bank of Latin America, *Mexico: the story and lessons behind Latin America's first AI strategy* (June 2020), p. 5,

As mentioned in a 2022 report conducted by the OECD in collaboration with the Development Bank of Latin America, "Mexico's 2018 strategy, which was put into effect under a previous administration, is no longer publicized on official government websites. It is unclear whether the current administration considers the strategy to be still in effect."[2734]

In December 2021, Centro LATAM Digital and Iniciativa Latinoamericana por los Datos Abiertos (ILDA), with the financial support of the International Development Research Centre (IDRC) and the Inter-American Development Bank (IADB), published a report on Mexico's public policy on AI. The purpose of this report is to identify the main challenges and obstacles for the design of public policies on AI that includes a human rights-based approach and that may serve to support and resume Mexico's national AI strategy by the current government.

Key recommendations are (i) to create a national strategy on AI that is multi-stakeholder and multi-disciplinary that could contribute to the development of public policies and mechanism for measurement and assessment; (ii) put a strong emphasis on the protection of personal data related with the development of AI technologies; (iii) implement the OECD principles on AI; (iv) include efficient government coordination mechanisms to implement a national plan on AI that could identify the main actors and stakeholders of different areas; and (v) to work closely with the different commissions and groups of National Congress to make them aware of the benefits and risks of AI that may support the drafting of flexible regulations on AI.[2735]

In the meantime, in 2020, under the current administration but following a recommendation of the 2018 AI readiness and policy report, a multi-stakeholder national coalition, IA2030.Mx,[2736] comprising institutions from the government, industry, civil society and academy, and coordinated by C Minds, issued the Mexican National AI Agenda (2018-

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https://scioteca.caf.com/bitstream/handle/123456789/1587/Mexico_the_story_and_lessons_behind_Latin_America's_first_AI_strategy.pdf?sequence=1&isAllowed=y

[2734] OECD/CAF, *The strategic and responsible use of artificial intelligence in the public sector of Latin America and the Caribbean*, OECD Public Governance Reviews, p. 101, https://doi.org/10.1787/1f334543-en. See also, Vladimir Cortés Roshdestvensky and Priscilla Ruíz Guillén, *Reportes de politica publica: Mexico*, empatia (Dec. 2021), https://secureservercdn.net/192.169.220.85/dxc.177.myftpupload.com/wp-content/uploads/2021/12/Policy-report-Mexico-version-final.pdf

[2735] **E**mpatia, *Reportes de política publica: México* (Dec. 2021), https://secureservercdn.net/192.169.220.85/dxc.177.myftpupload.com/wp-content/uploads/2021/12/Policy-report-Mexico-version-final.pdf

[2736] https://www.ia2030.mx

2030).[2737] The "objective is to coordinate efforts, build a single voice around AI and promote continued action and support for the topic."[2738] The Agenda revolves around six thematic axes: 1. Data, Digital Infrastructure and Cybersecurity; 2. Ethics; 3. Research and Development; 4. Governance, Government and Public Services; 5. Skills, Capacities and Education; and 6. Mexicans Abroad.

Under the first axis and with regard to privacy, the Agenda identifies as a key issue: "A
constant tension exists between privacy and access to data necessary for the development and improvement of AI systems. If data is the raw material, how to ensure appropriate access? A vision for data governance which allows access to data in a safe, ethical, lawful and privacy-friendly way, as it is currently defined or to be reconsidered in light of recent events such as the SARS 2 COVID-19 pandemic or possible terrorist attacks, is necessary."[2739]

Concerning ethics, the Agenda states that "it is of the utmost importance for the development and adoption of AI technology in our country to be based on the protection of, and respect for human rights."[2740] The Agenda explains that "one of the main merits in using human rights as a pivotal element in the development of AI is that human rights clearly establish the responsibility of the government in protecting human rights and providing mechanisms for the prevention of, and remedy against possible violations."[2741] The Agenda identifies three rights which may be particularly at risk: freedom of expression, equality and non-discrimination, and privacy.[2742] These are rights which are part of the case law of the Inter-American Court for Human Rights and also addressed by the Inter-American Commission for Human Rights. These rights are also well defined in various conventions at international level.[2743]

With regard to the public sector, the Mexican government published the General Principles for the Development and Use of Systems based on

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[2737] IA2030Mx, *Mexican AI National Agenda* (2020),
https://www.ia2030.mx/agenda2020
[2738] CAF-Development Bank of Latin America, *Mexico: the story and lessons behind Latin America's first AI strategy* (June 2020), p. 7,
https://scioteca.caf.com/bitstream/handle/123456789/1587/Mexico_the_story_and_lessons_behind_Latin_America's_first_AI_strategy.pdf?sequence=1&isAllowed=y
[2739] IA2030Mx, *Mexican AI National Agenda* (2020), p. 23,
https://www.ia2030.mx/agenda2020
[2740] Ibid, p. 47.
[2741] Ibid., p. 48.
[2742] Ibid., p. 48.
[2743] Ibid., p. 49.

AI in the Federal Public Administration.[2744] The key principles are: Monitor and evaluate the impacts of AI systems in order to ensure that they achieve the expected results; Promote transparency, by explaining to the users that interact with AI systems the decision process taken by such systems, the expected benefits as well as the potential risks derived from using such systems; Protect privacy, by incorporating mechanisms of control and consent for the use of personal data during the design of AI systems; Foster equality, by reducing risks of discriminatory biases derived from the utilized data; Due process, by allowing individuals to dispute decisions made by AI systems.

However, in 2020, the US Library of Congress noted that "the presidential administration that adopted this strategy and its guiding principles ended on November 30, 2018. No information could be located on whether the current administration (which commenced on December 1, 2018) will continue with this strategy and its principles or initiate a similar effort."[2745]

Public Participation

The Mexican AI National Agenda is the product of a broad public participation exercise. The IA2030Mx coalition stated that "the members of this movement have been working since the beginning of 2018 under a philosophy of co-responsibility of government, academia, industry and civil society, seeking that Mexico does not lag behind in the 4th Industrial Revolution, strategically take advantage of the benefits of AI and mitigate the possible ethical and social risks."[2746] "What started as the collaboration of 10 institutions grew to the participation of more than 110 on a national scale. One of the first actions of the coalition was launching a national consultation on AI," in which 1.588 people across the different Mexican states participated.[2747]

[2744] *Principles for the Administration of Artificial Intelligence* (Nov. 2018), https://www.gob.mx/cms/uploads/attachment/file/415644/Consolidado_Comentarios_Consulta_IA__1_.pdf.

[2745] US Library of Congress, *Regulation of Artificial Intelligence: The Americas and the Caribbean* (July.24, 2020), https://www.loc.gov/law/help/artificial-intelligence/americas.php.

[2746] IA2030Mx, *Artificial Intelligence in Mexico: A National Agenda* (Nov. 2020), https://www.ia2030.mx/.

[2747] IA2030Mx, *Encuesta Nacional de Inteligencia Artificial* (2019), https://36dc704c-0d61-4da0-87fa-917581cbce16.filesusr.com/ugd/7be025_9e91bfffeea647a0a663630ea716aa8f.pdf

Data Protection

　　The right to data protection[2748] is enshrined in Article 16 paragraph 2 of the Mexican Constitution. Mexico has also ratified the 1981 Council of Europe (Convention 108) for the protection of individuals with regard to the processing of personal data but not the 2018 Protocol modernizing the Convention.[2749]

　　For the private sector, the 2010 Federal Law for the Protection of Personal Data Held by Private Parties and its 2011 Regulations constitute the main legislative framework regarding data protection. The National Institute for Transparency, Access to Information and Personal Data Protection (INAI) is the authority responsible for enforcing the law in the private sector.

　　For the public sector, the 2017 General Law for the Protection of Personal Data in the Possession of Obligated Subjects as well as the General Guidelines for the Protection of Personal Data regulates the processing of personal information in the possession of any Federal, State or local authority across Mexico. The INAI is responsible for applying these rules at the federal level. Each of the 32 Mexican States has its own legal framework for the processing of personal data by the public sector. A State-level data protection authority is in charge of ensuring compliance with the law.

　　As pointed by the INAI, "a common basis for the private and the public sector are the principles and duties regarding the protection of personal data that are found in the regulations that apply to them, which assure data subjects that the processing of their information is carried out properly."[2750] Whether the processing of personal data occurs in the private or the public sector, data subjects benefit from the "ARCO rights" which refer to the access, ratification, cancelation and opposition rights of data

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[2748] National Institute for Transparency, Access to Information and Personal Data Protection, *The right to the protection personal data in Mexico – Guide* (Dec. 2020), https://home.inai.org.mx/wp-content/documentos/GuiasTitulares/guiapdpextranjeros_ing.pdf

[2749] See Council of Europe, *Chart of signatures and ratifications of Treaty 223* (status as of March, 12, 2023), https://www.coe.int/en/web/conventions/full-list?module=signatures-by-treaty&treatynum=223

[2750] National Institute for Transparency, Access to Information and Personal Data Protection, *Recomendaciones para el tratamiento de datos personales derivado de luso de la inteligencia artificial* (May 2022), (translated from Spanish), https://home.inai.org.mx/wp-content/documentos/DocumentosSectorPublico/RecomendacionesPDP-IA.pdf; for more specific information on the laws governing privacy and data protection for the private and public sectors in Mexico, see Cristos Velasco and Maria Solange Maqueo, *Privacy and Data Protection Law in Mexico,* Wolters Kluwer Law & Business, (Nov. 2022).

subjects, with respect to their personal data. In particular, data subjects have the right to oppose to the processing of their data, at any time, by any mechanism, including automated decision-making and profiling. In the public sector, data subjects are also granted the right to data portability.

In May 2022, the INAI issued its Recommendations for the processing of personal data deriving from the use of AI.[2751] Referring to the OECD, the INAI mentions that "there exists at least five values or principles for responsible AI governance:

(1) AI should benefit to people and the planet by fostering inclusive growth, sustainable development and well-being.

(2) AI systems should be designed in compliance with the rule of law, human rights, democratic values and diversity, and they should include adequate mechanisms – such as, for example, allowing human intervention when it is necessary – to guarantee a just and equitable society.

(3) Transparency and responsible public disclosure regarding AI systems should exist in order to ensure that people understand its results and can be challenged.

(4) AI systems should function in a safe and sound manner during its entire lifecycle and potential risks should be continuously assessed and managed.

(5) Organizations and individuals who develop, deploy or operate AI systems should be responsible for its correct functioning, based on the principles described above."[2752]

The INAI then sets "five basic principles which should be respected during the development and implementation of any AI technology. These principles guarantee that technological development has a positive impact on people's life, especially people who use these technologies."[2753] These are: inclusive growth, sustainable development, and well-being; human-

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[2751] National Institute for Transparency, Access to Information and Personal Data Protection, *Recomendaciones para el tratamiento de datos personales derivado de luso de la inteligencia artificial* (May 2022), (translated from Spanish), https://home.inai.org.mx/wp-content/documentos/DocumentosSectorPublico/RecomendacionesPDP-IA.pdf; see for an account in English, Data Guidance, *Mexico: INAI recommendations on AI* (Sept. 2022), https://www.dataguidance.com/opinion/mexico-inai-recommendations-ai

[2752] National Institute for Transparency, Access to Information and Personal Data Protection, *Recomendaciones para el tratamiento de datos personales derivado de luso de la inteligencia artificial* (May 2022), (translated from Spanish), p. 16, https://home.inai.org.mx/wp-content/documentos/DocumentosSectorPublico/RecomendacionesPDP-IA.pdf

[2753] Ibid., p. 16.

centered values and fairness; transparency and explainability; robustness, security, and safety; and accountability.

The INAI is part of the Ibero-American Data Protection Network (RIPD),[2754] a group of experts on data protection and access to information, composed of 34 entities, including 14 federal and state access to information and data protection authorities from Latin America and the Caribbean. In 2019, the RIPD adopted "Specific Guidelines for Complying with the Principles and Rights Governing Personal Data Protection in Artificial Intelligence Projects,"[2755] based on the Standards for Personal Data Protection for the Ibero-American States approved in 2017.[2756] The INAI relied on the RIPD AI Guidelines to formulate its own Recommendations on top of the OECD AI Principles.

The INAI is a member of the Global Privacy Assembly (GPA) since 2010, as well as the Institute for Access to Public Information of Mexico City (2010), the Transparency, Public Information Access and Personal Data Protection for the State of Mexico (2015) and the Institute for Transparency, Access to Information and Data Protection of Michoacan (2022).

The INAI co-sponsored the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence[2757] and the 2020 GPA Resolution on AI Accountability.[2758] However, it did not endorse the 2022 GPA Resolution on Facial Recognition Technology.[2759]

[2754] *See* https://www.redipd.org/

[2755] Red Iberoamericana de Protección de Datos (RIPD), *Orientaciones Específicas para el Cumplimiento de los Principios y Derechos que Rigen la Protección de los Datos Personales en los Proyectos de Inteligencia Artificial* (June 21, 2019), http://inicio.inai.org.mx/nuevo/RIPD_orientaciones_especificas_de_proteccion_de_datos_en_ia.pdf

[2756] Red Iberoamericana de Protección de Datos (RIPD), *Estándares de Protección de Datos Personales para los Estados Iberoamericanos*. (June 20, 2017), https://www.redipd.org/sites/default/files/inlinefiles/Estandares_Esp_Con_logo_RIPD.pdf

[2757] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[2758] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[2759] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology (Oct. 2022)*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-

Algorithmic Transparency

Although transparency and explainability are not expressly mentioned in the data protection laws of Mexico, the INAI's 2022 Recommendations for the processing of personal data deriving from the use of AI mention transparency and explainability as one of the five basic AI principles that should be respected during the development and implementation of AI systems.[2760] The INAI explains that: "whoever uses AI systems should be transparent regarding the use of such systems and provide significant information in order for people to be aware that they are interacting with AI systems; to know what part AI systems play in the results obtained; to be granted the opportunity to contest the outcome if they have been negatively impacted by the AI system."[2761]

EdTech and Children Tracking

In November 2020, the Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data (Convention 108) issued Guidelines on Children's Data Protection in an Education Setting, also applicable to remote e-learning solutions and services.[2762] The Committee recalls that "[t]he UN Convention Committee on the Rights of the Child set out in 2001, that "(…)Education must be provided in a way that respects the inherent dignity of the child and enables the child to express his or her views freely.""[2763]

The Committee also states that: "[c]hildren cannot see or understand how large their digital footprint has become or how far it travels to thousands of third parties across or beyond the education landscape, throughout their lifetime. While children's agency is vital and they must be better informed of how their own personal data are collected and processed, there is at the same time a consensus that children cannot be expected to

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Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[2760] National Institute for Transparency, Access to Information and Personal Data Protection (INAI), *Recomendaciones para el tratamiento de datos personales derivado de luso de la inteligencia artificial* (May 2022), p. 17, https://home.inai.org.mx/wp-content/documentos/DocumentosSectorPublico/RecomendacionesPDP-IA.pdf

[2761] Ibid., p. 17 (translated from Spanish).

[2762] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data (Convention 108), *Guidelines on Children's Data Protecion in an Education Setting* (April 2021), https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

[2763] *Guidelines on Children's Data Protecion in an Education Setting*, p. 3.

understand a very complex online environment and to take on its responsibilities alone."[2764]

"Processing must not involve more data than necessary to achieve the legitimate purpose. This is particularly important when consent cannot be freely given because the choice is to use a product and receive remote instruction or refuse and receive none."[2765] "A precautionary approach and a strengthened protection towards sensitive, special categories of data, including genetic and biometric data, and ethnic origin, or relating to sexual orientation, or offences, recognising children's additional vulnerability."[2766]

"Profiling of children should be prohibited by law. In exceptional circumstances, States may lift this restriction when it is in the best interests of the child or if there is an overriding public interest, on the condition that appropriate safeguards are provided for by law"[2767] "The Guidelines on artificial intelligence and data protection should be followed in educational settings, with regard to the automatic processing of personal data to ensure that AI applications do not undermine the human dignity, the human rights and fundamental freedoms of every child whether as an individual, or as communities, in particular with regard to the right to non-discrimination."[2768]

"Recognising that legislation on educational settings and other domestic and international law have an impact on how the data protection rules are applied, including the rights of data subjects, educational institutions need strong legislative frameworks and Codes of Practice to empower staff, and to give clarity to companies to know what is permitted and what is not, when processing children's data in the context of educational activities, creating a fair playing field for everyone."[2769]

In May 2022, Human Rights Watch published a global investigative report on the education technology (EdTech) endorsed by 49 governments, including Mexico, for children's education during the pandemic. Based on technical and policy analysis of 163 EdTech products, Human Rights Watch found that governments' endorsements of the majority of these online learning platforms put at risk or directly violated children's rights.

EdTech products used in Mexico sent children's data to AdTech companies that specialize in behavioral advertising or whose algorithms determine what children see online. According to Human Rights Watch, in

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[2764] *Guidelines on Children's Data Protecion in an Education Setting*, p. 4.
[2765] *Guidelines on Children's Data Protecion in an Education Setting*, p. 5.
[2766] *Guidelines on Children's Data Protecion in an Education Setting*, p. 8.
[2767] *Guidelines on Children's Data Protecion in an Education Setting*, p. 19.
[2768] *Guidelines on Children's Data Protecion in an Education Setting*, p. 19.
[2769] *Guidelines on Children's Data Protecion in an Education Setting*, p. 4.

line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop, refine, and enforce modern child data protection laws and standards, and ensure that children who want to learn are not compelled to give up their other rights in order to do so.[2770]

Lethal Autonomous Weapons

In October 2022, Mexico endorsed, together with 69 other countries, a joint statement on autonomous weapons systems at the UN General Assembly meeting. In this joint statement, States urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[2771]

In February 2023, Brazil endorsed, along with more than 30 other Latin American and Caribbean states, the Belén Communiqué,[2772] which calls for "urgent negotiation" of a binding international treaty to regulate and prohibit the use of autonomous weapons to address the grave concerns raised by removing human control from the use of force.

Human Rights

Freedom House gives Mexico a "partly free" (60/100) rating for political rights and civil liberties.[2773] According to Freedom House,

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[2770] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[2771] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

[2772] Communiqué of the Latin American and the Caribbean Conference of Social and Humanitarian Impact of Autonomous Weapons (Feb. 24, 2023), https://www.rree.go.cr/files/includes/files.php?id=2261&tipo=documentos

[2773] Freedom House, *Freedom in the World 2022 – Mexico (2022),* https://freedomhouse.org/country/mexico/freedom-world/2022

"Mexico has been an electoral democracy since 2000, and alternation in power between parties is routine at both the federal and state levels. However, the country suffers from severe rule of law deficits that limit full citizen enjoyment of political rights and civil liberties." [2774]

In December 2020, celebrating Human Rights Day, the National Institute for Public Health, mentioned that "Mexico signed the Universal Declaration of Human Rights in 1948, however it was not until1992 that the protection and defense of human rights obtained constitutional ranking. In December 2020 (…) The COVID-19 crisis has been fueled by structural discrimination and racism. (…) In order to recover from the crisis, we have to tackle the pandemic of inequality. For this, it is necessary to promote and protect economic, social and cultural rights."[2775]

OECD / G20 AI Principles

Mexico has taken an active role in pursuing international cooperation for the ethical development of AI. The Mexican government endorsed the OECD AI Principles in 2019 as well as the G20's and is one of the founding members of the Global Partnership on AI (GPAI), the world's first international AI initiative.[2776]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Mexico is represented in UNESCO's World Commission on the Ethics of Scientific Knowledge and Technology (COMEST). COMEST produced a preliminary study on the ethics of AI, which has now become the foundation of the UNESCO Recommendation on the Ethics of AI.[2777] In November 2021, Mexico alongside 192 other states adopted the Recommendation on Ethics of AI.[2778]

[2774] Freedom House, *Freedom in the World 2022 – Mexico (2022),* https://freedomhouse.org/country/mexico/freedom-world/2022

[2775] Instituto Nacional de Salud Publica, *Dia de los Derechos Humanos* (Dec. 9, 2020), (translated from Spanish), https://www.insp.mx/avisos/dia-de-los-derechos-humanos

[2776] OECD, *OECD to host Secretariat of new Global Partnership on Artificial Intelligence (*June 15, 2020) https://www.oecd.org/going-digital/ai/oecd-to-host-secretariat-of-new-global-partnership-on-artificial-intelligence.htm; Gobierno de México, *Declaración Conjunta de los miembros fundadores de la Alianza Global sobre la Inteligencia Artificial* (June 5, 2020) https://www.gob.mx/sre/prensa/declaracion-conjunta-de-los-miembros-fundadores-de-la-alianza-global-sobre-la-inteligencia-artificial.

[2777] UNESCO, *Elaboration of a Recommendation on the ethics of artificial intelligence* (2020) https://en.unesco.org/artificial-intelligence/ethics#recommendation, COMEST: https://en.unesco.org/themes/ethics-science-and-technology/comest/members

[2778] UNESCO, *Recommendation on the Ethics of Artificial Intelligence*, (Nov. 23, 2021), https://unesdoc.unesco.org/ark:/48223/pf0000381137

Mexico is among the countries that "have initiated a process to establish institutional infrastructures, such as national steering committees on the ethics of AI, to oversee the piloting of the capacity-building tools under development."[2779]

CAF, the development bank of Latin America, and UNESCO signed a letter of intent to collaborate on the implementation of the UNESCO Recommendation in Latin America and the Caribbean. They pledged to create a Regional Council composed of national and local governments in the region which will support their implementation efforts. According to Gabriela Ramos, UNESCO Assistant Director-General for Social and Human Sciences, Mexico will be a member of the Regional Council.[2780]

Evaluation

Mexico was the first Latin American country to have initiated a national AI strategy in 2018. However, the change in administration at the end of 2018 has put a break on previous AI policy initiatives. The 2022 Recommendations for the processing of personal data deriving from the use of AI issued by the national data protection authority and the first implementation steps taken to implement the UNESCO Recommendation on the Ethics of AI are positive signs although AI remains largely unregulated across the country. There are ever-growing concerns regarding the use of AI for mass surveillance of citizens.

[2779] UNESCO, *Implementation of the Recommendation on Ethics of AI*, (Oct. 7, 2022), p. 3, https://unesdoc.unesco.org/ark:/48223/pf0000382931
[2780] G. Ramos, *Inteligência Artificial ética e responsável: das palavras aos fatos e direitos*, Somos Ibero-America (Feb. 1, 2023), https://www.somosiberoamerica.org/pt-br/tribunas/inteligencia-artificial-etica-e-responsavel-das-palavras-aos-fatos-e-direitos/

Myanmar

National AI Strategy

   The Government of Myanmar has not developed a national AI strategy. However, Myanmar endorsed the UNESCO Recommendation on the Ethics of AI which could provide a template, should Myanmar take step to implement it, for a human-centered national AI strategy.

Public Participation

   The Burmese government does not appear to hold public participation in AI policymaking.

Data Protection

   Myanmar does not have a single principal data protection law and does not have a data protection agency. Three legal instruments refer to the concept of privacy or data protection:

- The Constitution of the Republic of the Union of Myanmar (2008)[2781]
- The Law Protecting the Privacy and Security of Citizens (Union Parliament Law 5/2017) of 8 March 2017, as amended by Law 16/2020 of 28 August 2020, and by the State Administration Council Law 4/2021 of 13 February 2021 (Privacy Law)[2782]
- The Electronic Transactions Law of 30 April 2004 (State Peace and Development Council Law No. 5/2004), as amended by the Law amending the Electronic Transactions Law (No. 6/2014) of 25 February 2014, and by the State Administration Council Law No. 7/2021 of 15 February 2021 (ETL)[2783]

   Section 357 of the Constitution states: "The Union shall protect the privacy and security of home, property, correspondence, and other

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[2781] An unofficial translation is available at https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/79572/117761/F1973500681/MMR 79572%20EngMmr.pdf

[2782] An unofficial translation is available at https://www.myanmar-responsiblebusiness.org/pdf/Law-Protecting-Privacy-and-Security-of-Citizens_en_unofficial.pdf

[2783] An unofficial translation is available at https://www.myanmar-responsiblebusiness.org/pdf/electronic-transactions-law_consolidated_2014-and-2021_en.pdf

communications of citizens under the law subject to the provisions of this Constitution."[2784]

According to its Preamble, the Privacy Law was enacted to protect the privacy and security of citizens as stated in the Constitution. "Privacy" is defined as "the right to freedom of movement, freedom of residence, and freedom of speech of a citizen". Section 3 of the Privacy Law states that every citizen "has the right to enjoy the protection of his/her privacy and security in full, as set out in the Constitution". Section 4 requires the relevant Ministry, and relevant government department, organization, or official (called Responsible Authorities in the Privacy Law) to ensure that the privacy and security of citizens are protected. Before the Privacy Law was amended by the State Administration Council Law 4/2021 of 13 February 2021 ("SACL 4/2021"), Section 8 of the Privacy Law protected citizens from unreasonable searches, seizures, and surveillance. The SACL 4/2021 suspended section 8 on 13 February 2021, thirteen days after Myanmar's military took power in a coup, returning Myanmar to military rule.

Amendments to the ETL by the State Administration Council Law 7/2021 of 15 February 2021 (SACL 7/2021) introduced the concept of personal data and personal data protection. "Personal Data" is defined as "information that identifies or is capable of identifying an individual". A new section 27-A was inserted into the ETL, among other things: (a) setting out the obligations of a Personal Data Management Officer; (b) requiring that an "investigation team" receiving personal data keep it confidential except disclosing it to permitted persons; and (c) excluding the application of the personal data protection obligations from certain scenarios, such as investigations by the government. The term "Personal Data Management Officer" covers both persons authorized by the government and an organization, who are responsible for collecting, retaining, and using personal data. An Officer's obligations include:

- storing, protecting, and processing personal data according to its type and level of security;
- prohibiting the examination, disclosure, transmission, alteration, destruction, and copying of personal data without consent of the individual or as permitted by any law;
- refraining from processing personal data in violation of the ETL; and

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[2784] An unofficial translation is available at
https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/79572/117761/F1973500681/MMR 79572%20EngMmr.pdf

- destroying personal data after its retention period has expired.

The 2022 Cyber Security Bill lays out a set of rules for the protection of personal information, which shows alignment with the General Data Protection Regulation. For example, Article 11 in Chapter (6) stipulates that "the person responsible for managing and keeping the personal information shall –

(a) systematically keep, protect and manage the personal information based on its types, security levels in accordance with the law

(b) not allow, disclose, inform, distribute, dispatch, modify, destroy copy and submit as evidence of the personal information of an individual without the consent or the permission in the provision of an existing law to any individual or organization

(c) not utilize personal information for managing issues that are not in compliance with the objectives

(d) systematically destroy the personal information that is collected to be used for a period of time after a certain period"[2785]

Meanwhile, the Cyber Security Bill establishes responsibilities and restrictions for Digital Platform Service Providers, which follows the global trend of holding Big Tech and platform companies accountable. The Bill not only clarifies the definition of a Digital Platform Service Provider but also requires all digital platform service providers to obtain a license from the newly designated Cyber Security Steering Committee in order to operate in Myanmar[2786].

In particular, Article 36 in Chapter (9) Providing Service designates obligations for "digital platform service provider with more than 100,000 users in Myanmar shall ensure the following:

(a) Devices holding users' data must be stored in line with data classification rules.

(b) Internet Service providers must be registered in accordance with Myanmar company law.

(c) Taxes must be paid in accordance with the provisions set forth in relevant laws if is due to claim any tax relating to the business conducted through internet service or similar profitable business."

[2785] The Republic of the Union of Myanmar, State Administration Council, *Cyber Security Law (DRAFT)* (Feb. 2022), https://www.hrw.org/sites/default/files/media_2022/02/220127%20Cyber-Security-Bill-EN.pdf

[2786] Win Shwe Yi Htun, *Cyber Security Bill (Myanmar)*, NO & T Asia Legal Review No.44 (Feb. 2022), https://www.noandt.com/en/publications/publication20220225-3/

Moreover, the Bill provides that a digital platform service provider in Myanmar "shall retain the following information for up to three years from the first date of use of the service:
  (a) username, Internet Protocol (IP) address, telephone number, identification card number and address of the service users.
  (b) users record of the service user.
  (c) other information as directed by the Department."[2787]

Algorithmic Transparency

In Myanmar, algorithmic transparency is neither protected nor provided as a legal right. The report Human Rights Impact Assessments for AI: Learning from Facebook's Failure in Myanmar by the Carr Center for Human Rights Policy at Harvard Kennedy School investigates the identification of discrimination as an algorithmic harm and the assessment of algorithmic decision-making under the UN Guiding Principles through the case of Facebook.[2788]

Facial Recognition

In December 2020, Myanmar authorities started using a system of 335 surveillance cameras in the capital, Napyidaw.[2789] This was done as part of the government's "Safe City" project to curb crime. Made by the technology company Huawei, the cameras were spread between eight townships and reportedly equipped with facial recognition as well as license plate recognition capabilities. An advisor for the Naypyitaw Safe City project, said that "anyone with a criminal history entering Naypyitaw will be recognized".[2790]

Similar systems have been installed in Mandalay and the commercial capital Yangon.[2791] Myanmar's regional minister for Electrical

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[2787] The Republic of the Union of Myanmar, State Administration Council, *Cyber Security Law (DRAFT)* (February 2022), https://www.hrw.org/sites/default/files/media_2022/02/220127%20Cyber-Security-Bill-EN.pdf

[2788] Mark Latonero & Aaina Agarwal, *Human Rights Impact Assessments for AI: Learning from Facebook's Failure in Myanmar* (March 19, 2021), https://carrcenter.hks.harvard.edu/files/cchr/files/210318-facebook-failure-in-myanmar.pdf

[2789] MyanmarNow, *Hundreds of Huawei CCTV cameras with facial recognition go live in Naypyitaw*, (Dec. 19, 2020), https://www.myanmar-now.org/en/news/hundreds-of-huawei-cctv-cameras-with-facial-recognition-go-live-in-naypyitaw

[2790] Ibid.

[2791] Reuters, *Fears of "digital dictatorship" as Myanmar deploys AI*, (March 19, 2021), https://www.reuters.com/world/china/fears-digital-dictatorship-myanmar-deploys-ai-2021-03-18/

Power and Construction confirmed by way of comments to the media, that the system in Mandalay would use AI to detect any abnormal activity such as crime and accidents. Such activity would be recorded and followed by the cameras, which would send information to one another as well as to the police.

Human Rights Watch raised concerns that the use of this technology was approved without public consultation or transparency, making it unclear how the Myanmar authorities would mitigate any potential impact on human rights and the right to privacy.[2792]

Protesters protesting the ousting of Aung San Suu Kyi in a coup in 2021 have cited fears regarding the deployment and use of facial recognition technology by the military junta.[2793] In a few weeks after the coup, the military leadership successfully pushed for amendments[2794] suspending Sections 5, 7, and 8 of the Law Protecting the Privacy and Security of Citizens (2017). The ramifications of the suspension of these sections, particularly Section 8(b) of the Privacy Law which previously provided that the State "shall not surveil, spy upon, or investigate any citizen in a manner which could disturb their privacy and security or affect their dignity" when it comes to the potential of privacy breaching AI surveillance, is immense.

The deployment of facial recognition technology by the Tatmadaw against protesters has drawn concern from the international community including a call by the Indonesian President for a high-level ASEAN meeting in 2021.[2795]

A report by the Reuters news agency in July 2022 revealed that Myanmar's military government is now expanding camera surveillance systems for cities in all 14 states and divisions in the country.[2796]

[2792] Human Rights Watch, *Myanmar: Facial Recognition System Threatens Rights*, (March 12, 2021), https://www.hrw.org/news/2021/03/12/myanmar-facial-recognition-system-threatens-rights

[2793] Rina Chandran, *Fears of 'digital dictatorship' as Myanmar deploys AI* (March 18, 2021) https://www.reuters.com/world/china/fears-digital-dictatorship-myanmar-deploys-ai-2021-03-18/

[2794] Myanmar State Administration Council, *Law Protecting the Privacy and Security of Citizens*, (unofficial translation Apr. 2021) https://www.myanmar-responsiblebusiness.org/pdf/Law-Protecting-Privacy-and-Security-of-Citizens_en_unofficial.pdf

[2795] WION, *Myanmar deploys AI; Indonesian president calls for ASEAN meeting on coup crisis*, (March 19, 2021) https://www.wionews.com/south-asia/myanmar-deploys-ai-indonesian-president-calls-for-asean-meeting-on-coup-crisis-371577

[2796] Reuters, *Myanmar's junta rolls out Chinese camera surveillance systems in more cities* (July 2022), https://www.reuters.com/world/asia-pacific/exclusive-myanmars-junta-rolls-out-chinese-camera-surveillance-systems-more-2022-07-10/

Biometric Identification

In 2019, Myanmar's Ministry of Transport and Communications announced its intention to make biometric data collection mandatory when mobile phone services are purchased, this being part of a strategy to create a "national database to store and manage biometric mobile subscriber registration information from all mobile network operators in Myanmar."[2797]

Lethal Autonomous Weapons

At the United Nations General Assembly (UNGA) in October 2017, Myanmar said that lethal autonomous weapons systems were a security issue that warranted serious consideration.[2798] At the 74th Session of the UNGA in October 2019, Myanmar's Ministry of Foreign Affairs noted that there were "growing concerns on new types of weapons such as lethal autonomous weapon systems and their destructive power", and there was a risk of new arms race growing with worldwide military expenditures increasing at an "alarming level".[2799]

Based on Human Rights Watch as of August 2020, Myanmar had not commented on calls to ban fully autonomous weapons.[2800] Myanmar is not a state party to the Convention on Certain Conventional Weapons

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[2797] Biometrics Research Group, *Myanmar to introduce mandatory biometric data collection for massive national database*, (Dec. 6, 2019), https://www.biometricupdate.com/201912/myanmar-to-introduce-mandatory-biometric-data-collection-for-massive-national-database

[2798] Campaign to Stop Killer Robots, *Report on Activities - Convention on Conventional Weapons Group of Governmental Experts Meeting on Lethal Autonomous Weapons Systems & Meeting of High Contracting Parties, United Nations Geneva*, (Nov. 2017), p. 18, https://www.stopkillerrobots.org/wp-content/uploads/2018/02/CCW_Report_Nov2017_posted.pdf

[2799] Myanmar, *Statement by Mr. Ye Minn Thein, Director, International Organizations and Economic Department, Ministry of Foreign Affairs at the First Committee Thematic Discussion on "Conventional Weapons,* 74th Session of the United Nations General Assembly, New York, (Oct. 25, 2019), pp. 2-3, http://statements.unmeetings.org/media2/21999843/myanmar-statement-on-conventional-weapons-cluster-25-oct-.pdf

[2800] Human Rights Watch, *Stopping Killer Robots - Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control* (Aug. 10, 2020) https://www.hrw.org/report/2020/08/10/stopping-killer-robots-country-positions-banning-fully-autonomous-weapons-and

(CCW),[2801] but according to Human Rights Watch, participated in CCW meetings on killer robots in 2017-2018.[2802]

Human Rights

Though the country is a signatory to the UN Declaration of Human Rights, according to Freedom House, Myanmar is "not free" with a score of 9 out of 100 in 2022,[2803] down from its score of 28 out of 100 in 2021[2804] and 30 out of 100[2805] in 2020 where it was last classified "partly free."

According to the 2021 Democracy Index, Myanmar is ranked 166th out of 167 countries with a score of 1.02 out of 10.[2806] Under the Voice and Accountability Value which measures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media, Myanmar achieved a score of -0.94 in 2020, well below the world median of 0.[2807] In addition, the 2021 World Justice and Peace Index, Myanmar, six places down from its previous rank scored 0.39 overall and was ranked 128th of the 139 countries and jurisdictions surveilled.[2808]

According to Freedom House, "Myanmar's already-stalled democratic transition was completely derailed in February 2021, when the military, known as the Tatmadaw, seized control of the government, arresting dozens of senior government officials and preventing the newly elected parliament from convening. The National League for Democracy (NLD), which won a sweeping victory in the November 2020 elections, led a broad-based opposition to the takeover, organizing a country-wide Civil

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[2801] See *High Contracting Parties and CCW Signatories*
https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/high-contracting-parties-and-signatories-ccw/
[2802] Human Rights Watch, *Stopping Killer Robots - Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control* (Aug. 10, 2020)
https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and
[2803] Freedom House, *Myanmar, 2022*,
https://freedomhouse.org/country/myanmar/freedom-world/2022
[2804] Freedom House, *Myanmar, 2021*,
https://freedomhouse.org/country/myanmar/freedom-world/2021
[2805] Freedom House, *Myanmar, 2020*,
https://freedomhouse.org/country/myanmar/freedom-world/2020
[2806] Economist Intelligence Unit, *Democracy Index 2021*,
https://www.eiu.com/n/campaigns/democracy-index-2021/
[2807] World Bank, *Voice and Accountability*, (2020)
https://govdata360.worldbank.org/indicators/h80016ecf?country=MMR&indicator=382&viz=line_chart&years=1996,2020
[2808] World Justice Project, *Rule of Law Index 2021*,
https://worldjusticeproject.org/sites/default/files/documents/WJP-INDEX-21.pdf

Disobedience Movement (CDM) that continued throughout the year. Protesters were met with indiscriminate violence from military forces, and journalists, activists, and ordinary people risked criminal charges and detention for voicing dissent. Armed conflict between the military and ethnic rebel groups continued, as did the forced displacement of hundreds of thousands of Rohingya, a mostly Muslim ethnic minority."

The use of AI has been implicated in what has been described as ethnic genocide and ethnic cleansing in Myanmar, in the wake of several reports regarding the complicity of Meta, formerly known as Facebook.[2809] The social media platform was reported as unable or unwilling to moderate hate speech calls for violence against Rohingya Muslims in Myanmar, and in some cases amplified them. Relying on a small Burmese-speaking team who were not based in Myanmar, the company depended heavily on Natural Language Processing systems which struggled to provide accurate translations of content in Burmese. In the aftermath of the crisis which has seen over 1 million Rohingya Muslims in refugee camps in Bangladesh, a class action has been launched against Meta seeking 150 billion pounds in compensation for the company's complicity in the genocide.[2810]

The Law Amending the Electronic Transactions Law of 2004[2811] has been enacted last February 2021. This permits government confiscation of personal data and the criminalization of content deemed to be untruthful or fake or created to incite public panic. The 2022 Cyber Security Bill[2812] not only addresses the protection and governance of personal information, critical information infrastructure, and electronic communication but also establishes mechanisms and responsibilities to tackle risks, crimes, and attacks in the cyberspace[2813]. Meanwhile, the new Bill faces criticisms and

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[2809] Mish Khan and Sam Taylor, *Facebook in Myanmar: A Human Problem that AI Can't Solve*, (Nov. 6, 2018) https://teacircleoxford.com/essay/facebook-in-myanmar-a-human-problem-that-ai-cant-solve/

[2810] Dan Milmo, *Rohingya sue Facebook for £150bn over Myanmar genocide* (Dec. 2016), https://www.theguardian.com/technology/2021/dec/06/rohingya-sue-facebook-myanmar-genocide-us-uk-legal-action-social-media-violence

[2811] Free Expression Myanmar, *Legislation amending the Electronic Transactions Law* (2021) https://freeexpressionmyanmar.org/wp-content/uploads/2021/02/Electronic-Transaction-Law-Amendment-2021-EN-MM.docx.pdf

[2812] OneTrust DataGuidance, *Myanmar: State Administration Council issues cybersecurity bill* (Feb. 1, 2022), https://www.dataguidance.com/news/myanmar-state-administration-council-issues

[2813] The Republic of the Union of Myanmar, *State Administration Council, Cyber Security Law (DRAFT)* (Feb. 2022), https://www.hrw.org/sites/default/files/media_2022/02/220127%20Cyber-Security-Bill-EN.pdf

calls for withdrawal[2814] due to its potential impacts on fundamental rights. In particular, the Bill prohibits the use of virtual private networks (VPNs) without the Ministry's permission. Moreover, the Bill grants authorities the power to order Digital Platform Service Providers to "block or remove content" when a "legitimate complaint" is made that the content "damages a person's social standing and livelihood." [2815]

OECD / G20 AI Principles

      Myanmar has not endorsed OECD AI and G20 AI principles.

UNESCO Recommendation on the Ethics of Artificial Intelligence

      Myanmar has adopted the UNESCO Recommendation on the Ethics of AI together with all the 193 Member States at UNESCO.[2816] It remains to be seen how Myanmar will implement it in practice.

Evaluation

      Myanmar does not have a national AI strategy and has not established a process for meaningful public participation to this end. Meanwhile, AI is being used for surveillance purposes in a country in which the unregulated use of new technologies has already had devastating consequences in the framework of the Rohingya genocide. It remains to be seen whether Myanmar's endorsement of the UNESCO Recommendation on the Ethics of Artificial Intelligence could have a positive impact on the future of AI in the country.

[2814] Global Network Initiative, *GNI Calls for Withdrawal of Draft Cybersecurity Law in Myanmar* (2022), https://globalnetworkinitiative.org/cybersecurity-law-mm-2022/

[2815] Human Rights Watch, *Myanmar: Scrap Draconian Cybersecurity Bill* (Feb. 15, 2022), https://www.hrw.org/news/2022/02/15/myanmar-scrap-draconian-cybersecurity-bill

[2816] UNESCO, *UNESCO adopts first global standard on the ethics of artificial intelligence* (Apri 2022), https://www.unesco.org/en/articles/unesco-adopts-first-global-standard-ethics-artificial-intelligence

Netherlands

National AI strategy

   In September 2019, the Dutch government set out The Strategic Action Plan for Artificial Intelligence.[2817] The Plan sets out three broad themes – "Capitalising on societal and economic opportunities," "Creating the right conditions," and "Strengthening the Foundations." The key goals are public-private partnerships, international cooperation, an "inclusive approach that puts people first," and "a country that is at the forefront of AI applications which serve the interests of people and society." Under this plan, the Dutch government commits to protecting public values and human rights. It emphasizes prohibition of discrimination, protection of privacy, freedom of speech, human dignity and autonomy, as well as the right to a fair trial.

   The Dutch AI strategy follows the 2018 Dutch Digitalization Strategy, the first Cabinet-wide effort to formulate key priorities for digitalization, data and AI. As part of the Digitalization Strategy, the government "supports and endorses the guidelines established in the EU's recent communication on the 'Ethics guidelines for trustworthy AI.'"[2818] The government also commits to creating a "responsible innovation toolbox (including impact assessments, handbooks and guidelines)" and making knowledge available in the areas of transparency, explainability and accountability. Through the Transparency Lab initiative, the "government is working with businesses and supervisory bodies to assess how algorithms and their practical applications can be made more transparent and verifiable."

   In 2021, the government published an updated Dutch Digitalization Strategy. The ministries that coordinate the efforts are advised by the Digital Netherlands Council, which joins the deliberation process on digitalization policy and consists of domain experts. The Strategy commits the Netherlands to European and international cooperation within appropriate ethical and legal frameworks. The Strategy devotes particular attention to fairness (especially in relation to the GDPR), rule of law, accountability, transparency, and fundamental rights (with explicit reference to privacy, non-discrimination, and autonomy).

[2817] Government of the Netherlands, *The Strategic Action Plan for Artificial Intelligence* (2019), https://oecd.ai/en/wonk/documents/netherlands-strategic-action-plan-for-ai-2019
[2818] Nederland Digitaal, *Dutch Digitalization Strategy 2.0* (2018), https://www.nederlanddigitaal.nl/documenten/publicaties/2019/11/13/english-version-of-the-dutch-digitalisation-strategy-2.0

Despite the actions already taken by the Dutch government, some concerns have been raised as to how the government proceeds towards its policy objectives. The findings in the 2020 report of the Temporary Committee on the Digital Future (TCDT) of the Dutch House of Representatives concludes that the House of Representatives has only discussed digitization in a fragmented way; that not all of the risks, opportunities and public values have been addressed; and that many laws and rules in the field of digitization are determined in the European Union.[2819] The TCDT proposed to establish a standing committee for Digital Affairs in the House of Representatives, which was effectively formed in 2021 and addressed themes like digital fundamental rights, digital citizenship, and data ethics.[2820]

The Dutch Research Council (NWO) and the Ministry of Economic Affairs & Climate Policy jointly developed a public-private research program that funds research on explainable, socially aware and responsible AI.[2821] The NWO funds several other AI-related programs, such as 'SPRONG - Responsible Applied AI'. SPRONG aims to find ways to responsibly implement AI in practice, which resulted in several AI projects on sustainability and reducing socio-economic inequality.[2822] In 2023, the NWO announced funding for the ten-year AI research program ROBUST, which in part focuses on "accuracy, reliability, repeatability, resilience and security" and taking "AI out of the black box".[2823] The Special Interest Group of AI, SIGAI, representing all computing science academic institutes and researchers in the Netherlands that perform AI research also published

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[2819] House of Representatives, The temporary committee on the Digital Future (TCDT), *Summary of the report Update required. Towards greater parliamentary control of digitisation*, https://www.houseofrepresentatives.nl/members-parliament/committees/temporary-committee-digital-future/summary-report-update-required

[2820] House of Representatives, *Digitale Zaken – Thema's* (Jun. 9, 2021), https://www.tweedekamer.nl/kamerleden-en-commissies/commissies/digitale-zaken/thema%E2%80%99s

[2821] NWO, First national research agenda for Artificial Intelligence (Nov. 21, 2019), https://www.nwo.nl/en/news-and-events/news/2019/11/first-national-research-agenda-for-artificial-intelligence.html

[2822] Regieorgaan SIA, *SPRONG-trajecten 2022 – 2030 (ronde 1)* (2022), https://regieorgaan-sia.nl/praktijkgericht-onderzoek/programmas/sprong/sprong-trajecten-2022-2030-ronde-1/

[2823] NWO, NWO funds ten years of AI research with 25 million euros (Jan. 10, 2023), https://www.nwo.nl/en/news/nwo-funds-ten-years-ai-research-25-million-euros

Dutch Artificial Intelligence Manifesto highlighting the importance of socially aware, explainable and responsible AI.[2824]

The public administration within the Kingdom is layered and sometimes disconnected. However, the government organizations and the Association of the Netherlands Municipalities (VNG), the Ministry of the Interior and Kingdom Relations commit to focusing on "ethics in, by and for design and the transparency of algorithms when government experiments with AI for public tasks." A study commissioned by Ministry of Interior proposed AI guidelines that apply to the public and private sectors. The guideline, prepared by researcher at VUB, Tilburg University, Eindhoven University of Technology and the National Human Rights Institute of the Netherlands, is a result of Dutch parliament stating that "racism must be ended as soon as possible, not least by stopping the use of discriminatory algorithms."[2825]

In 2020, the Dutch Data Protection Authority (Dutch DPA) approved the first 'code of conduct' in the Netherlands, the Data Pro Code[2826] drafted by NL Digital, the Dutch industry association for organizations in the ICT sector. In 2021, researchers from VUB, Tilburg University, Eindhoven University of Technology and the National Human Rights Institute of the Netherlands developed AI guidelines that apply to the public and private sectors. The Guideline is a result of Dutch parliament stating that "racism must be ended as soon as possible, not least by stopping the use of discriminatory algorithms" and was funded by the Ministry of the Interior.[2827]

Public Participation

Participation in the development of the Dutch Digitalization Plan and the Strategic Action Plan for Artificial Intelligence is geared more towards public agencies, private companies, universities and research

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[2824] *Dutch Artificial Intelligence Manifesto* (2018), http://bnvki.org/wp-content/uploads/2018/09/Dutch-AI-Manifesto.pdf; *IPN SIG AI* (2019), https://ii.tudelft.nl/bnvki/?page_id=1247

[2825] VUB Today, *New guidelines aim to correct discriminatory algorithms: VUB researchers help to create AI rules for government organisations and companies* (July 15, 2021), https://today.vub.be/en/article/new-guidelines-aim-to-correct-discriminatory-algorithms

[2826] Wanbound BV, *Data Processing Agreement* (Apr. 2018), https://www.wanbound.com/wp-content/uploads/2018/05/Nederland-ICT-Data-processing-agreement-UK-Part-2.pdf

[2827] VUB Today, *New guidelines aim to correct discriminatory algorithms* (July 15, 2021), https://today.vub.be/en/article/new-guidelines-aim-to-correct-discriminatory-algorithms

institutes than the citizens directly. Taskforce AI, which created the initial AI report, is a public-private partnership, and its Dutch AI Coalition (NL AIC) is a cooperation between different research centers.[2828] The national Innovation Centre for AI (ICAI) is also a national network between knowledge institutions, industry and government.[2829]

The NL AIC launched 'AI Parade', an eighteen-month public engagement project on AI that kicked off in early 2022,[2830] focused in part on education and citizen participation.[2831] The Dutch Ministry of Foreign Affairs also set up the REAIM conference in 2023, with the intent to "mobilise and activate a wide group of stakeholders" in the responsible military deployment of AI.[2832]

The Dutch AI Coalition (NL AIC), a public-private consortium, offers (paid or time-limited trial) membership for interested stakeholders in the field of AI, which would grant access to AI projects and working groups.[2833] The Human-Centric AI working group has developed two key projects. The Ethical, Legal and Societal Aspects (ELSA) Labs aims "to ensure that companies, governmental authorities, centres of expertise, civil society organisations and the general public develop responsible applications of AI jointly. This involves solutions for both social and business problems, focusing on honesty, fairness, security and (above all) trustworthiness. The approach addresses human values as well as public values."[2834] The Participative and Constructive Ethics (PACE) platform for its part is meant to be a "learning community of practice" which "focuses on AI, its social and application environment, and on participatory and constructive ethics. Four themes are examined: (inter)national environment, methodology development, practical wisdom and ethics in organisations."[2835]

[2828] HSD Foundation, *New Dutch AI Coalition Demands National* Approach (July 23, 2019), https://www.thehaguesecuritydelta.com/news/newsitem/1329-dutch-ai-coalition-demands-national-approach

[2829] Innovation Center for Artificial Intelligence, https://icai.ai/

[2830] Bibliotheeknetwerk.nl, *AI-PARADE VAN START* (Feb. 15, 2022), https://www.bibliotheeknetwerk.nl/nieuws/ai-parade-van-start

[2831] NL AI Coalition, *AI Parade*, https://nlaic.com/en/building-blocks/human-centric-ai/social/ai-parade/

[2832] Ministry of Foreign Affairs, *REAIM 2023* (2023), https://www.government.nl/ministries/ministry-of-foreign-affairs/events/reaim

[2833] NL AIC, *Deelname informatie* (2022), https://nlaic.com/deelname-informatie/

[2834] ELSA Labs, https://nlaic.com/en/building-blocks/human-centric-ai/elsa-concept/

[2835] PACE platform, https://nlaic.com/en/building-blocks/human-centric-ai/ethics/platform-pace/

While not equivalent to public participation in AI policy as such, the Dutch government has made efforts towards document accessibility and knowledge-building, which are often the building blocks for adequate public participation in AI policies. The Electronic Announcement Act requires national governments to publish official publications on the internet rather than on paper.[2836] All AI policies are accessible by the public via the websites of the Dutch Parliament and the Digital Government.[2837]

Data Protection

Since the Netherlands are an EU Member State, the General Data Protection Regulation is directly applicable. In alignment with GDPR requirements, the Dutch Data Protection Authority (DPA) was established. It is an independent supervisory body in charge of promoting and enforcing personal data protection rights. It is tasked with the supervision of national and international businesses and organizations, the central government (including the police and the criminal justice authorities), as well as associations, schools, foundations and individual citizens.

The DPA is a member of the European Data Protection Body (EDPB). Established by the GDPR, the EPDB is "an independent European body, which contributes to the consistent application of data protection rules throughout the European Union, and promotes cooperation between the EU's data protection authorities."[2838]

The Dutch DPA is also a member of the Global Privacy Assembly (GPA) since 2002. The DPA endorsed neither the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence[2839] or the 2020 GPA

[2836] European Commission, *Digital Government Factsheet 2019 – Netherlands* (2019)*,* https://joinup.ec.europa.eu/sites/default/files/inline-files/Digital_Government_Factsheets_Netherlands_2019_0.pdf

[2837] Dutch House of Representatives, https://www.houseofrepresentatives.nl; Government of the Netherlands, *Digital Government Agenda*, https://www.nldigitalgovernment.nl/digital-government-agenda/

[2838] European Data Protection Board, *Who we are*, https://edpb.europa.eu/about-edpb/about-edpb/who-we-are_en

[2839] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

Resolution on AI Accountability.[2840] However, the did co-sponsor the 2022 GPA Resolution on Facial Recognition Technology.[2841]

In January 2023, the Dutch government launched a supervisory body for algorithms (the 'algoritmetoezichthouder' or algorithm watchdog).[2842] A new dedicated unit, the Algorithms Coordination Directorate has been created within the DPA. The main mission of the algorithm supervisor is to coordinate all algorithm-related cooperation between Dutch regulators. Its focus will be mainly on monitoring the use of algorithms in the public sector. The objective is to better protect citizens' fundamental rights (such as privacy and non-discrimination) and reduce the risks of serious incidents. This development responds to a series of issues identified with the use of AI in the public sector and some initiatives of several Dutch regulators.

In January 2021, the Dutch Court of Audit, following an investigation on the Dutch government's use of algorithms, concluded that "government interests are central to algorithms, not private citizens' interests; that the government recognizes the importance of privacy but takes little account of ethical aspects; and warns against the government's use of algorithms becoming dependent on external suppliers."[2843] In another report issued in 2022, the Dutch Court of Audit concluded that 6 out of 9 algorithms used by the Dutch government did not meet the basic requirements of Dutch law and exposed the government to various risks: from inadequate control over the algorithm's performance and impact to bias, data leaks and unauthorized access.[2844]

In October 2021, several Dutch regulators (the Netherlands Authority for Consumers and Markets, the Dutch DPA, the Dutch Authority for the Financial Markets, and the Dutch Media Authority) intensified their cooperation via the Digital Regulation Cooperation Platform (DST) to

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[2840] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[2841] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology (Oct. 2022)*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[2842] Digitaleoverheid.nl, *Algoritmetoezichthouder gelanceerd* (Jan. 17, 2023), https://www.digitaleoverheid.nl/nieuws/algoritmetoezichthouder-gelanceerd/

[2843] The Netherlands Court of Audit (Jan. 2021). *Understanding algorithms.* https://english.rekenkamer.nl/publications/reports/2021/01/26/understanding-algorithms

[2844] The Netherlands Court of Audit (May 2022). *Algoritmes getoetst.* https://www.rekenkamer.nl/publicaties/rapporten/2022/05/18/algoritmes-getoetst

better coordinate their oversight activities, not least oversight on the use of algorithms and AI.[2845] They also pushed for more transparency in how the personal data of users is processed and used.[2846] This stronger coordination follows a 2021 audit of Google's teaching tools for schools[2847] which found the software's privacy protections to be lacking, as well as regulatory pushback against other Big Tech firms.[2848]

Algorithmic transparency

The Netherlands is subject to both the EU GDPR and Council of Europe Convention 108+. Algorithmic transparency is therefore a legal right. The DPA has expressed concerns with regard to the lack of transparency and poor data security practices in the public sector, policing, criminal justice. It has also mentioned that digital government will be one of its three core focus areas for 2020-23.[2849]

Fraud detection algorithm

In early 2020, a Dutch court ruled that the System Risk Indication algorithm (SyRI), used to combat fraud in government programs, violated Article 8 of the European Convention on Human Rights.[2850] In the landmark decision, the Court ruled that the principle of transparency was not observed, because there is no insight into the risk indicators and the operation of the risk model. The Court also warned that there is a risk of bias, in that inadvertent links could be established through SyRI on the basis of lower socio-economic status or an immigration background.

[2845] Authority for Consumers and Markets, *The Digital Regulation Cooperation Platform (SDT)* (Oct. 2021) https://www.acm.nl/en/about-acm/cooperation/national-cooperation/digital-regulation-cooperation-platform-sdt

[2846] Authority for Consumers and Markets, Dutch regulators press for better information about online use of internet users' data (Mar. 2022), https://www.acm.nl/en/publications/dutch-regulators-press-better-information-about-online-use-internet-users-data

[2847] Sjoera Nas and Floor Terra, *DPIA on the use of Google G Suite (Enterprise) for Education* (Mar. 12, 2021), https://www.surf.nl/files/2021-06/updated-g-suite-for-education-dpia-12-march-2021.pdf

[2848] Natasha Singer, *How the Netherlands Is Taming Big Tech* (Jan. 18, 2023), www.nytimes.com/2023/01/18/technology/dutch-school-privacy-google-microsoft-zoom.amp.html

[2849] Dutch Data Protection Authority, *Focus Dutch Data Protection Authority 2020-2023*, https://autoriteitpersoonsgegevens.nl/sites/default/files/atoms/files/ap-dataprotectie_in_een_digitale_samenleving_-gb_wtk.pdf

[2850] Wired.com, *Europe Limits Government by Algorithm. The US, Not So Much* (Feb. 7, 2020), https://www.wired.com/story/europe-limits-government-algorithm-us-not-much/

The UN Special Rapporteur on Extreme Poverty and Human Rights explained that the decision challenged the "systematic, legislatively sanctioned, used of digital technologies in welfare state on human rights ground."[2851] In a filing with the court, the Special Rapporteur voiced concern that "SyRI has consistently been rolled out in poorer and more vulnerable areas of municipalities", and that the Dutch government has denied access to information about the data and 'risk models' used in the algorithm." The Special Rapporteur called the decision, "a clear victory for all those who are justifiably concerned about the serious threats digital welfare systems pose for human rights."[2852]

In April 2020, the Data Processing by Partnerships Act was introduced by the government. Where SyRI was related to public data sharing, this bill expands the data surveillance and sharing to all data stored in public and private storage.[2853]

In January 2021, the Dutch government resigned after it became clear that thousands of families, disproportionately of ethnic minority backgrounds, were wrongly accused of child welfare fraud by a discriminatory algorithm and ordered to pay money back, which drove many victims into deep poverty.[2854] This scandal would later lead to several policy shifts: a mandatory AI registry, a new algorithmic supervisory body, and mandatory human rights risk assessments for public sector AI systems.[2855] Alexandra van Huffelen, Minister of Digitalization at the time, later declared that high-risk AI systems should require certification before use, that "impact assessments should be meaningful and address fundamental rights in the complete AI lifecycle," that AI should respect and protect people and their rights, and human-centric AI requires more human

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[2851] UN HROHC*, Brief by the UN Special Rapporteur on extreme poverty and human rights as Amicus Curiae in the case of NJCM c.s./De Staat der Nederlanden (SyRI) before the District Court of The Hague (2019),*
https://www.ohchr.org/Documents/Issues/Poverty/Amicusfinalversionsigned.pdf

[2852] UN HROHC*, Landmark ruling by Dutch court stops government attempts to spy on the poor – UN* expert (Feb. 5, 2020),
https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=25522&LangID=E

[2853] AlgorithmWatch, *Automating Society Report 2020 (2020)*,
https://automatingsociety.algorithmwatch.org/wp-content/uploads/2020/10/Automating-Society-Report-2020.pdf

[2854] Gabriel Geiger, How a Discriminatory Algorithm Wrongly Accused Thousands of Families of Fraud, Vice (Mar. 1, 2021) https://www.vice.com/en/article/jgq35d/how-a-discriminatory-algorithm-wrongly-accused-thousands-of-families-of-fraud

[2855] Luca Bertuzzi, *Once bitten, Netherlands wants to move early on algorithm supervision* (Nov. 14, 2022), https://www.euractiv.com/section/digital/news/once-bitten-netherlands-wants-to-move-early-on-algorithm-supervision/

oversight - especially when systems have a big influence on people."[2856] Van Huffelen also makes clear that the government's experiences with the fraud detection algorithm have urged the Netherlands not just to implement new algorithmic oversight policies, but also to proactively implement components of the EU AI Act, and sometimes even go beyond its requirements: she states that the high-risk impact assessment should be expanded to more cases via "a broader Impact Assessment tool on Human Rights and algorithms" and that Big Tech platform governance is inadequate, suggesting that stricter rules should include content labelling policies.[2857]

In a similar scandal, journalists revealed that five Dutch municipalities (Nieuwegein, Houten, IJsselstein, Lopik and Veenendaal) used a discriminatory risk scoring system for fraud up to June 2022 – even after the SyRi scandal – and the Dutch labor union FNV filed a complaint with the Dutch DPA in January 2023.[2858]

AI Registries

In September 2020, Amsterdam launched an AI registry in beta version to detail how city government uses algorithms to deliver services. "Each algorithm cited in the registry lists datasets used to train a model, a description of how an algorithm is used, how humans utilize the prediction, and how algorithms were assessed for potential bias or risks. The registry also provides citizens a way to give feedback on algorithms their local government uses and the name, city department, and contact information for the person responsible for the responsible deployment of a particular algorithm."[2859]

[2856] Alexandra van Huffelen, *Toespraak Alexandra van Huffelen, 30 maart 2022*, *Brussel* (Mar. 30, 2022) https://www.rijksoverheid.nl/documenten/toespraken/2022/03/30/toespraak-alexandra-van-huffelen-30-maart-2022-brussel

[2857] Alexandra van Huffelen, *Toespraak Alexandra van Huffelen, 30 maart 2022*, *Brussel* (Mar. 30, 2022) https://www.rijksoverheid.nl/documenten/toespraken/2022/03/30/toespraak-alexandra-van-huffelen-30-maart-2022-brussel

[2858] Yvette de Vries, *FNV doet aangifte tegen vijf gemeenten om omstreden screening uitkeringsgerechtigden* (Jan. 21, 2023), https://www.fnv.nl/nieuwsbericht/sectornieuws/uitkeringsgerechtigden/2023/01/fnv-doet-aangifte-tegen-vijf-gemeenten-om-omstrede

[2859] Khari Johnson, *Amsterdam and Helsinki launch algorithm registries to bring transparency to public deployments of AI* (Sept. 28, 2020), https://venturebeat.com/2020/09/28/amsterdam-and-helsinki-launch-algorithm-registries-to-bring-transparency-to-public-deployments-of-ai/. See also Meeri Haataja, Linda van de Fliert and Pasi Rautio, Public AI Registers, Realising AI transparency and civic

The city of Amsterdam's system was used as a blueprint for a nation-wide mandatory registry for algorithms deployed in the public sector.[2860] The registry, available online starting December 2022, is freely accessible for citizens and shows information on the purpose, legal background, application, human rights impact assessments, and oversight of public sector algorithms.[2861] Contribution to the registry is currently voluntary but the aim is to make it compulsory by the end of 2025.[2862] The Dutch government's Fundamental Rights and Algorithms Impact Assessment (FRAIA), launched in 2021, dovetails with the algorithm registry: the registry specifies whether a Human Rights Impact Assessment was performed.

The Dutch cities of Rotterdam and Eindhoven are among 7 European cities to participate in a public AI algorithm registry experiment, The Algorithmic Transparency Standard, led by Eurocities Digital Forum Lab. Building on the Amsterdam and Helsinki experiment, the aim is to provide cities with a common data schema for algorithm registries that is validated, open-source, publicly available, and ready for use in local algorithm registries.[2863]

Predictive Policing

The Dutch police force, in collaboration with Utrecht University and the University of Amsterdam, established the National Police Lab AI to develop "AI techniques to improve the safety in the Netherlands in a socially, legally and ethically responsible way."[2864] In alignment with the government's commitment to experiment with technology to solve social issues, the Dutch police has launched pilot projects with predictive policing to anticipate and prevent crime that might be committed by a certain person or at a certain location.

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participation in government use of AI, A White Paper (Sept. 2020), https://algoritmeregister.amsterdam.nl/wp-content/uploads/White-Paper.pdf

[2860] Luca Bertuzzi, *Once bitten, Netherlands wants to move early on algorithm supervision* (Nov. 14, 2022), https://www.euractiv.com/section/digital/news/once-bitten-netherlands-wants-to-move-early-on-algorithm-supervision/

[2861] Government of the Netherlands, *Algoritmes*, The Algorithm Register of the Dutch Government (2022), https://algoritmes.overheid.nl/algoritme/;

[2862] European Commission, Open Source Observatory, *Dutch government launches Algorithms Register* (Dec. 23, 2022), https://joinup.ec.europa.eu/collection/open-source-observatory-osor/news/dutch-government-launches-algorithms-register

[2863] Eurocities, *How does your city use and manage your digital data?* (Jan. 19, 2023), https://eurocities.eu/latest/how-does-your-city-use-and-manage-your-digital-data/

[2864] Innovation Center for Artificial Intelligence, *Police Lab AI,* https://icai.ai/police-lab-ai/

The first was the Sensing Project in Roermond, where police used cameras and other sensors to reduce pickpocketing. The system monitored all people driving in and around Roermond and created a risk score, effectively transforming the "city into a living lab where every person travelling by car is subjected to mass surveillance and other human rights violations".[2865] The project violated the principles of human rights, informed consent, right to privacy and data protection, right to due process and non-discrimination. Amnesty International called on the Dutch government to "halt the Sensing project and comparable 'experimental' predictive policing projects" and to "implement a mandatory and binding human rights impact assessment requirement applicable to the public sector."[8] The experiment was halted in 2022, with its "results unclear" and without leading to structural policy shifts.[2866]

The second predictive policing project is "Criminaliteits Anticipatie Systeem" (Crime Anticipation System or CAS) implemented nationwide in 2017. The use of CAS to predict crime locations makes the Netherlands the first country in the world to deploy predictive policing on a national scale.[2867] The Dutch Court of Auditors critized the CAS for its lack of oversight, privacy, and transparency, deeming the system "high-risk," "worrying," and "prejudiced," but Dutch police has not made significant changes in response.[2868]

Lethal Autonomous Weapons

In 2016, the Dutch government agreed with the conclusions of the Joint Committee of the Advisory Council on International Affairs (AIV) and the Advisory Committee on Issues of Public International Law (CAVV) advisory report that meaningful human control is required in the deployment of autonomous weapon systems and responsibility and accountability attribution needs to be taken into account in the design stage

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[2865] Amnesty International, *We Sense Trouble* (2020), https://www.amnesty.org/download/Documents/EUR3529712020ENGLISH.PDF

[2866] Gertie Driessen, Landelijke proef in Roermond rond opsporen zakkenrollers stille dood gestorven, resultaten onduidelijk (Nov. 11, 2020), https://www.limburger.nl/cnt/dmf20221111_95634631

[2867] Litska Strikwerda*, Predictive Policing: The Risks Associated with Risk Assessment.* The Police Journal (Aug. 2020), https://doi.org/10.1177/0032258X20947749.

[2868] Esther Lammers, *Rekenkamer waarschuwt voor mogelijke 'vooringenomenheid' bij politie-algoritmes* (May 18, 2022), https://www.trouw.nl/politiek/rekenkamer-waarschuwt-voor-mogelijke-vooringenomenheid-bij-politie-algoritmes~bdcc1753/

of weapon systems.[2869] The government also views a moratorium on fully autonomous weapon systems to be currently unfeasible. In a 2022 letter from the Government to the House of Representatives regarding Autonomous Lethal Weapons, the Minister of Foreign Affairs stated that the Dutch government agreed that the underlying mathematical models – and the data underlying those models – must be traceable and explainable at all times and further that it must be clear throughout the decision-making process where and how meaningful human control is assigned and who is responsible for what.[2870] In the same year, the Royal Netherlands Army became the first military in the West to deploy armed unmanned ground vehicles (UGVs) "for experimental use in an operational unit in a military-relevant environment."[2871] Also in 2022, the Netherlands endorsed the UN's Joint Statement on Lethal Autonomous Weapons Systems,[2872] which underlines "the need to maintain human responsibility and accountability in the use of force."[2873] In furtherance of regulating the use of AI in the military, the Minister of Foreign Affairs Wopke Hoekstra announced that in February 2023 the Netherlands will host an international summit on the responsible application of artificial intelligence in the military domain. The aim of the summit is to define an agenda for developing international agreements on AI applications in the military.[2874] At the end of the Summit, Government representatives, including the Netherlands, agreed on a joint

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[2869] Advisory Council on International Affairs, *Government response to AIV/CAVV advisory report no. 97, Autonomous weapon systems: the need for meaningful human control (Mar. 2, 2016),* https://perma.cc/J37M-UQ33

[2870] Government of the Netherlands, *Letter to parliament about Autonomous Weapon Systems* (Oct. 13, 2022), https://www.government.nl/ministries/ministry-of-foreign-affairs/documents/publications/2022/10/10/letter-to-parliament-autonomous-weapon-systems

[2871] Alexander Stronell, *Royal Netherlands Army commences armed robot trials in first among Western militaries* (Oct. 14, 2022), https://www.janes.com/defence-news/royal-netherlands-army-commences-armed-robot-trials-in-first-among-western-militaries/

[2872] United Nations, *Joint Statement on Lethal Autonomous Weapons Systems* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[2873] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly* (2022), https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

[2874] Government of the Netherlands, *The Netherlands to host international summit on artificial intelligence* (Sep. 21, 2022), https://www.government.nl/latest/news/2022/09/21/the-netherlands-to-host-international-summit-on-artificial-intelligence

call for action on the responsible development, deployment and use of artificial intelligence (AI) in the military domain.[2875]

In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[2876]

Human Rights

The Netherlands has endorsed the Universal Declaration of Human Rights, The European Union (EU) Charter of Fundamental Rights and The European Convention on Human Rights (ECHR).[2877] The Dutch government has set up an 'AI, public values and human rights' knowledge platform where ministries exchange knowledge and develop policy on public values and human rights in AI applications.[2878]

[2875] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action
[2876] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action
[2877] EU Agency for Fundamental Rights*, The European Union (EU) Charter of Fundamental Rights in the Netherlands* (2015), https://fra.europa.eu/sites/default/files/fra_uploads/fra-2019-eu-charter-in-netherlands_en.pdf
[2878] Government of the Netherlands, *Policy Brief AI, public values and human rights (Oct. 8, 2019)*, *https://www.digitaleoverheid.nl/wp-content/uploads/sites/8/2020/01/Dutch-policy-brief-on-AI-public-values-and-fundamental-rights_DEF-T.pdf*

OECD / G20 AI Principles

The Netherlands endorsed the OECD AI Principles. In December 2020, the Netherlands joined the Global Partnership for AI,[2879] a multi-stakeholder initiative which aims to foster international cooperation on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[2880]

UNESCO Recommendation on the Ethics of Artificial Intelligence

In November 2021, the Netherlands, alongside 192 other states, adopted the UNESCO Recommendation on the Ethics of AI.[2881] In October 2022, the Netherlands, together with 8 other states, recalled the efforts made by the members of the Group of friends for the implementation of the Recommendation and called on Member States to be "actively involved throughout the implementation process of the Recommendation."[2882]

Evaluation

The Netherlands has taken positive steps towards the rights-based deployment of AI with endorsement of UNESCO Recommendation on the Ethics of AI and related implementing efforts, OECD AI Principles, GDPR, and creation of an AI watchdog within its DPA. The country has expanded algorithmic transparency with its AI public registry. And the Dutch court should be credited with a landmark decision concerning the use of secret algorithms in government services. Still the rise of predictive policing and biometric databases, as well as risk-based systems that may adversely impact minority and vulnerable groups remains a concern. The Netherlands is a member of the Global Partnership on AI. As the Netherlands seeks to lead on AI testing and responsible AI applications, future public adoption of AI systems is expected to be aligned with responsible and human-centric development and use of AI, respecting human rights and fundamental freedoms.

[2879] Global Partnership on AI. https://gpai.ai/

[2880] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/

[2881] UNESCO, *Recommendation on the Ethics of Artificial Intelligence*, (Nov. 23, 2021), https://unesdoc.unesco.org/ark:/48223/pf0000381137

[2882] UNESCO, *Implementation of the Recommendation on the Ethics of Artificial Intelligence* (Oct. 7, 2022), https://unesdoc.unesco.org/ark:/48223/pf0000382931. For the adopted decision, see UNESCO Executive Board, *Decisions adopted by the Executive Board at its 215th session* (Nov. 18, 2022), p. 41, https://unesdoc.unesco.org/permalink/PN-98f40d84-ad53-44dc-bb48-466d1d9450e5

New Zealand

National AI Strategy

The process for developing a National AI strategy started in May 2021 and is still ongoing. The "working vision of the AI strategy [is for] Aotearoa New Zealand's people centered, inclusive and ethical AI benefits our economy and people and makes us a trusted partner in the global AI landscape".

The cornerstones for the proposed national AI strategy are:

"1) Human-centered and trusted AI;
2) Preparing the workforce;
3) Our place in the world;
4) Investment in AI economy;
5) Uniquely New Zealand; and,
6) All supported by enabling foundations."[2883]

The draft AI Strategy situates itself in a series of policy initiatives.

In 2018, the Ministry for Social Development published its Privacy, Human Rights and Ethics (PHRaE) framework. This set of tools started with a focus on predictive models and has been broadened to all initiatives where client data is used. It helps those who design services question whether it is 'right' to use information just because there is access to it and was designed to ensure that privacy, human rights and ethics are considered from the design and development stage of an initiative.[2884]

In 2020, Stats NZ released the Algorithm Charter for Aotearoa and signed by a number of New Zealand government departments. The Algorithm Charter is a commitment by government agencies to carefully manage how algorithms that use government data are developed and used. The Algorithm Charter includes commitments to transparency by clearly explaining how decisions are informed by algorithms; to the incorporation of *Te Ao Māori* perspective[2885] in the development and use of algorithms consistent with the principles of the Treaty of Waitangi; to keeping a focus on people through active engagement with stakeholders and affected people, communities and groups; to understanding the limitations in data

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[2883] AI Forum New Zealand, *Introducing Aotearoa's proposed AI cornerstones*, (Apr. 29, 2021), https://aiforum.org.nz/2021/04/29/introducing-aotearoas-proposed-ai-cornerstones/.

[2884] Ministry of Social Development, *Using personal information responsibly*, https://www.msd.govt.nz/about-msd-and-our-work/work-programmes/initiatives/phrae/index.html
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[2885] Māori worldview

and managing bias; to retaining human oversight by providing a channel to appeal decisions informed by algorithms; and to ensuring that privacy, ethics and human rights are safeguarded by regularly peer-reviewing algorithms to assess for unintended consequences and act on this information.

In September 2022, New Zealand launched its *Te Rautaki Matihiko mō Aotearoa*, the Digital Strategy for Aotearoa (Digital Strategy)[2886] with the aim to "[e]nabl[e] Aotearoa New Zealand's people, communities, economy, and environment to flourish and prosper in the digital era."[2887] David Clark, the Minister for the Digital Economy and Communications, introduced the digital strategy by stating that: "New Zealand stands on the precipice of a huge opportunity to design, build and use digital technologies in world-leading, ethical, equitable ways that reflect the culture and uniqueness of our country. To get there, we need to ask ourselves hard questions like: How can we build on New Zealand's inherently high levels of trust to benefit society, and the economy? What would it mean to be the first country to embrace the ethical deployment of Artificial Intelligence? Are we courageous enough to unlock the benefits of widespread digital thinking?" The Strategy is framed around 3 connected themes: *Mahi Tika* - Trust; *Mahi Tahi* - Inclusion; and *Mahi Aka* - Growth, supported by goals and measures.[2888]

The 2022/2023 Action Plan for the Digital Strategy was also published in September 2022 and provides a roadmap to 2027 and measures of success. Artificial Intelligence is included as a future issue, where there are not yet dedicated resources but where groundwork is required. The establishment of a Data Ethics and AI Center in scheduled for 2025.[2889]

Public Participation

The New Zealand Government processes have consistently included periods of public participation in policy and law development. Public participation opportunities for AI are across the government sector in a variety of industries - from policy and instrument development, like the

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[2886] Digital.govt.nz and Department of Internal Affairs, *The Digital Strategy for Aotearoa* (Sept., 2022), https://www.digital.govt.nz/dmsdocument/237~the-digital-strategy-for-aotearoa/html#ministers-foreword.

[2887] Ibid.

[2888] Ibid.

[2889] New Zealand Government, *Action Plan for the Digital Strategy for Aotearoa* (Sept. 2022), https://www.digital.govt.nz/assets/Digital-government/Strategy/Action-Plan-for-the-Digital-Strategy-for-Aotearoa-English-PDF.pdf

Algorithm Charter,[2890] to application and end use, like consultation on the use of AI in conservation efforts.[2891]

Consultation opportunities on the development of AI and digital policy include the 2019 public consultation on its draft Algorithm Charter for the use of algorithms in the public sector with government data. The consultation period ran from 17 October to 31 December 2019, and submissions were solicited from a range of key stakeholders including central government agencies, academics, non-government organizations, civil society representatives, and regulators.[2892] Thirty-four written submissions were received in relation to the charter and related issues.[2893]

From August to September in 2022, the Ministry of Justice held public consultations on reforming the disclosure aspect of the Privacy Act to increase transparency regarding the collection, use, and disclosure of personal information is fundamental to protecting individuals' privacy rights and their dignity and autonomy. [2894] Based on public feedback, the Ministry of Justice is considering reforms but have not yet released final decisions. [2895]

New Zealand's Digital Technologies Industry Draft Transformation Plan 2022-2032 was open for public consultations until 31st March 2022.[2896] The draft plan included a workstream tasked with the responsibility of delivering the AI Strategy for New Zealand including defining New Zealand's approach to supporting the ethical adoption of AI

[2890]Government Information Services - The Department of Internal Affairs, *Consultation, and submission summary: draft algorithm charter* (Nov. 20, 2020), https://data.govt.nz/docs/sub-summary-algorithm-charter/

[2891] "Long-term Insights Briefing, *Toitū Te Whenua* (2022), https://www.linz.govt.nz/our-work/crown-property-management/biosecurity-and-biodiversity/long-term-insights-briefing

[2892] Government Information Services - The Department of Internal Affairs, *Consultation, and submission summary: draft algorithm charter* (Nov. 20, 2020), https://data.govt.nz/docs/sub-summary-algorithm-charter/.

[2893] Ibid.

[2894] Ministry of Justice. *Broadening the Privacy Act's notification rules* (March 3, 2023), https://www.justice.govt.nz/justice-sector-policy/key-initiatives/broadening-the-privacy-acts-notification-rules/

[2895] Ministry of Justice, *Possible changes to notification rules under the Privacy Act 2020 Summary of engagement* (Dec. 2022), https://www.justice.govt.nz/assets/Summary-of-Submissions-notification-rules-Privacy-Act-2020-FINAL.pdf

[2896] Ministry of Business, Innovation and Employment, *Consultation for Digital Technologies Industry Transformation Plan 2022-2032*, (Feb., 2022), p. 15, https://www.mbie.govt.nz/have-your-say/consultation-for-digital-technologies-industry-transformation-plan/.

and helping grow a thriving AI ecosystem, ensuring   the safe adoption and use of AI in New Zealand.

New Zealand does not have a single written constitution, rather several documents of constitutional importance. One of these, *Te Tiriti o Waitangi*/The Treaty of Waitangi, is a founding agreement between the English Crown and the Maori iwi (tribes). Through much jurisprudence *Te Tiriti* is applied in New Zealand through a series of core principles that can be applied in a circumstance; partnership, active protection,[2897] and participation. These principles in this AI framework have specific mention in the AI Charter as a commitment to embed a *Te Ao Māori* perspective in the development and use of algorithms consistent with the Treat of Waitangi.[2898]

Data Protection

The Privacy Act 2020 came into force on 1 December 2020, replacing the Privacy Act of 1993.[2899] Separately, to the Privacy Act, the courts of New Zealand have developed a series of privacy torts recognizing the right of an individual to sue another for breach of privacy.[2900] The New Zealand Bill of Rights Act contains many rights founded on the right to privacy, such as the freedom from unreasonable search and seizure.[2901]

The Privacy Act is intended to protect individual privacy by providing a framework for protecting an individual's right to privacy of personal information, including the right of an individual to access their personal information, and giving effect to internationally recognized privacy obligations and standards in relation to the privacy of personal information, including the OECD Guidelines and the International Covenant on Civil and Political Rights.

The Privacy Act set down 13 privacy principles that require an individual to be informed of the fact and purpose of data collection, that require that collection not to be through unfair or overly intrusive means, that require the information to be protected by the agency and not used or

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[2897] Waitangi Tribunal, *Principles of the Treaty of Waitangi*, https://waitangitribunal.govt.nz/assets/WT-Principles-of-the-Treaty-of-Waitangi-as-expressed-by-the-Courts-and-the-Waitangi-Tribunal.pdf

[2898] Stats NZ, *Algorithm Charter For Aotearoa New Zealand* (July 2020), https://data.govt.nz/assets/data-ethics/algorithm/Algorithm-Charter-2020_Final-English-1.pdf

[2899] Office of Privacy Commissioner, *Privacy Act 2020 and the Privacy Principles* (Nov. 30, 2022), https://www.privacy.org.nz/privacy-act-2020/privacy-principles/.

[2900] See *Hosking v Runting* [2004] NZCA 34; (March 25, 2004) http://www.nzlii.org/nz/cases/NZCA/2004/34.html

[2901] Bill of Rights Act 1990 section 21.

shared outside the purposes for which it was collected, held only as long as needed for the purpose, and may not transfer the information offshore except under particular circumstances that continue comparable protection of the information.[2902] The individual has some rights to access and correct the information collected.[2903] These principles were largely unchanged from the 1993 Act that was replaced, with the only addition being requirements around offshore transfers. A breach of the privacy principles may lead to fine or a claim of interference under the Act, but these are minimal when compared to the European fines under the General Data Protection Regulation, or those proposed in the Australian Privacy Reforms. Notably, there are no rights for individuals being subject to algorithmic decisioning, though elements of them can be read into existing legislation as set out below.

The Privacy Commissioner has the power under the Privacy Act to issue codes of practice that become part of the law. These codes apply the Privacy Act to specific scenarios, for example credit reporting or situations of national security. There are currently six codes of practice.

In May 2018, the New Zealand Privacy Commissioner and the Chief Government Data Steward jointly developed the "Principles for the safe and effective use of data and analytics"[2904] aimed at government agencies. The New Zealand Office of the Privacy Commissioner has also been active in the Global Privacy Assembly, co-sponsoring the 2020 resolution on facial recognition technology[2905] and the 2018 Resolution on Accountability in the Development and Use of Artificial Intelligence.[2906]

[2902] Privacy Act 2020, section 22, information privacy principles 1, 2, 3,4, 5, 10, 11 and 12.

[2903] Privacy Act 2020, section 22, information privacy principles 6 and 7.

[2904] Privacy Commissioner and Stats NZ, *Principles for the safe and effective use of data and analytics*, (May, 2018), https://www.stats.govt.nz/assets/Uploads/Data-leadership-fact-sheets/Principles-safe-and-effective-data-and-analytics-May-2018.pdf.

[2905] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf.

[2906] Global Privacy Assembly, *Adopted Resolution On Accountability In The Development And Use Of Artificial Intelligence* (Oct 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf.

Algorithmic Transparency

The Privacy Act does not contain a right for an individual to understand how the AI decision was made. However, in New Zealand, where an automated decision is being made by a government agency, section 23 of the Official Information Act 1982 provides an individual with a right to obtain reasons for a government decision. These reasons are to be supplied in a written statement that includes any findings on material issues of fact and a reference to the information on which the findings were based to allow anybody with the power of review to understand the process of thought before a conclusion was reached.[2907]

The Algorithm Charter[2908] commits its public sector signatories to transparency - clearly explaining how decisions are informed by algorithms. This transparency may include a plain English document, making information about data and processes available, and publishing information about how data are collected, secured and stored.[2909] Where algorithms are being employed by government agencies in a way that can significantly impact on the wellbeing of people, or there is a high likelihood many people will suffer an unintended adverse impact, the Charter signatories will make an assessment of their algorithm decisions using a risk matrix.[2910]

There is no corresponding right to reasons for automated decisions made by private-sector agencies, but there is a right to access personal information,[2911] which could be argued to cover how the information has been the subject of processing by an algorithm. The Court has required that information provided to individuals under this access right is in a "form which can be comprehended", including "the key" which unlocks the information in a "meaningful way".[2912] In other words, the standard appears to require an explanation: evidence, support or reasoning for a decision.

The New Zealand Privacy Commissioner's submission on the Privacy Bill 2018 included a recommendation to add a new privacy principle to address automated decision-making and algorithmic transparency.[2913] While the Departmental Report on the Bill recognized the

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[2907] Re Vixen Digital Ltd [2003] NZAR 418 (HC) at [43].

[2908] Stats NZ, *Algorithm Charter For Aotearoa New Zealand* (July 2020), https://data.govt.nz/assets/data-ethics/algorithm/Algorithm-Charter-2020_Final-English-1.pdf

[2909] Ibid, Transparency.

[2910] *Assessing likelihood and impact*, https://www.data.govt.nz/toolkit/data-ethics/government-algorithm-transparency-and-accountability/algorithm-charter/.

[2911] Privacy Act 2020, section 22, Information Privacy Principle 6.

[2912] *Naidu v Australasian College of Surgeons* [2018] NZHRRT 234.

[2913] John Edwards, *Privacy Commissioner Submission to the Justice and Electoral Commission on the Privacy,* Bill 2018 at [8.12]–[8.18] and rec A.7.

issues needed further consideration, no change was recommended to the then Privacy Bill.[2914]

Use of AI in the Public Sector

The Algorithm assessment report, published in 2018, recommended that consideration be given to ways in which agencies ensure human rights, privacy and ethics are considered when developing algorithms, and that agencies embed a *Te Ao Māori* perspective where appropriate. The Data Ethics Advisory Group (DEAG) was created to assist in meeting those recommendations. The DEAG is convened by the Government Chief Data Steward (GCDS) to assist the New Zealand Government to maximize the opportunities and benefits from new and emerging uses of data, while responsibly managing potential risks and harms. The Group provides advice, comments, views and recommendations to the GCDS and State Sector agencies.[2915] It has provided advice on a number of matters including on population density assessment and a framework to work more collaboratively with *iwi* (tribes).[2916]

The Algorithm Charter[2917] finalized in July 2020 is considered a "commitment by government agencies to carefully manage how algorithms will be used to strike the right balance between privacy and transparency, prevent unintended bias and reflect the principles of the Treaty of Waitangi."[2918] The Algorithm Charter stipulates that a review of it will be conducted to ensure that it is meeting its intended purpose of improving government transparency and accountability without stifling innovation or causing undue compliance burden. An independent review of the Charter - which involved interviewing signatories, non-signatories, and subject

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[2914] Ministry of Justice Departmental Report into the Privacy Bill: Part 1 (13 March 2019) at [182].

[2915] Data Ethics Advisory Group, *Terms of Reference*, https://www.data.govt.nz/assets/data-ethics/DEAG/Data-Ethics-Advisory-Group-Terms-of-Reference-February-2023-Final-Signed.pdf

[2916] Guidance from Data Ethics Advisory Group Guidance from Data Ethics Advisory Group - data.govt.nz

[2917] New Zealand Government, *The Algorithm Charter,* https://www.justice.govt.nz/justice-sector-policy/key-initiatives/cross-government/the-algorithm-charter/.

[2918] Ministry of Internal Affairs and Stats NZ, *Algorithm Charter for Aotearoa New Zealand* (July, 2020), https://data.govt.nz/assets/data-ethics/algorithm/Algorithm-Charter-2020_Final-English-1.pdf.

matter experts, was completed in December 2021.[2919] This report found almost universal support for the charter, but a lot of implementation work still to do to ensure compliance with all charter commitments. The report also noted there is little opportunity for New Zealanders to get individual recourse on decisions made about them that have been informed by an algorithm. It also noted that greater enforcement of the charter might be necessary to keep social license, as there is a lack of a clear oversight body. The report also noted that capability and capacity within agencies and the expert community is limited. Stats NZ is working to consider and implement the findings of the review.

Facial recognition

In October 2022, the New Zealand Office of the Privacy Commissioner co-sponsored a GPA resolution on the Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology.

The Office of the Privacy Commissioner launched a consultation paper on Privacy Regulation of Biometrics in Aotearoa New Zealand, in August 2022, and requested public feedback until 30 September 2022. This consultation aimed to hear from New Zealanders amid growing concern over the issue of biometrics, including stores using Facial Recognition Technology as part of their CCTV systems. These public submissions will help inform the potential drafting of further guidance or rules, enabling organizations to innovate and benefit from emerging technologies while protecting people from harm under the Privacy Act. The consultation document featured a set of specific questions aimed at building on information first presented in an OPC position paper on biometrics released last year.[2920] After analyzing the 100 submissions received, the Office of the Privacy Commissioner has published its intention to explore a code to regulate biometric technologies in 2023, which will involve a public consultation period. .[2921]

[2919] Taylor Fry. 2021, *Algorithm Charter for Aotearoa New Zealand 3 Year 1 Review* (Dec., 2021, https://www.data.govt.nz/assets/data-ethics/algorithm/Algorithm-Charter-Year-1-Review-FINAL.pdf.

[2920] Privacy Commissioner New Zealand, *Public input is sought to inform privacy rules for biometrics* (Aug., 2022), https://www.privacy.org.nz/publications/statements-media-releases/public-input-sought-to-inform-privacy-rules-for-biometrics/

[2921] https://www.privacy.org.nz/publications/statements-media-releases/privacy-commissioner-to-explore-biometrics-code/ (15 Dec., 2022).

Lethal Autonomous Weapons

In 2021, the Minister of Disarmament and Arms Control announced that New Zealand will push for a new international law to ban and regulate autonomous weapons systems (LAWS).[2922]

In October 2022, New Zealand endorsed, together with 69 other countries participating in the UN General Assembly, a joint statement on autonomous weapons systems. In this joint statement, States urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[2923]

Human Rights

Freedom House ranked New Zealand very highly (99/100) in 2023 and reported that New Zealand has "a long record of free and fair elections and of guaranteeing political rights and civil liberties."[2924] The total consists of a score of 40/40 on political rights and a score of 59/60 on civil liberties.

The Bill of Rights Act of 1990 (NZBORA), the Human Rights Act of 1993 (HRA) and the Privacy Act of 2020 are the primary legislative instruments that recognize and safeguard human rights in New Zealand.

The Preamble of the NZBORA describes its purpose as the affirmation and promotion of human rights and fundamental freedoms and the expression of New Zealand's commitments to the International Convention on Civil and Political Rights. The rights in NZBORA qualifies the exercise of rights through section 5 "reasonable limits prescribed by laws as can be demonstrably justified in a free and democratic society". NZ

[2922] New Zealand Ministry for Disarmament and Arms Control, *New Zealand policy position and approach for international engagement* (2021), https://www.mfat.govt.nz/assets/Peace-Rights-and-Security/Disarmament/Autonomous-Weapons-Systems-Cabinet-paper.pdf

[2923] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[2924] Freedom House rates people's access to political rights and civil liberties in 210 countries and territories through its annual Freedom in the World report. Individual freedoms—ranging from the right to vote to freedom of expression and equality before the law—can be affected by state or nonstate actors, https://freedomhouse.org/countries/freedom-world/scores.

BORA is not supreme law and cannot be used by the Courts as a basis to strike down legislation.[2925] A statutory meaning consistent with the rights protected in NZBORA is preferred, however a statute that has direct conflict with NZBORA will remain in force.[2926] This situation has been criticized by the United Nations Human Rights Committee, which has called on New Zealand to strengthen the NZBORA.[2927]

The HRA protects people in New Zealand from discrimination on a number of grounds including ethnic or national origins, race, sex, political opinion, amongst others.[2928] It applies to the public sector (with some limitations for national security) and the private sector in matters such as employment, education, provision of services and membership of organizations.

New Zealand has endorsed the Universal Declaration of Human Rights and was one of the 48 nations that voted in favor of the UDHR in 1948 under the UN General Assembly Resolution No. A/RES/217(III)[A].[2929] In addition to the UDHR, New Zealand is a signatory to various international human rights treaties, including but not limited to the following core instruments: the International Covenant on Civil and Political Rights (ICCPR); the International Covenant on Economic, Social and Cultural Rights (ICESCR); the International Convention on the Elimination of All Forms of Racial Discrimination (CERD); the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW); the Convention on the Rights of the Child (CRC); the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (CAT); the Convention on the Rights of Persons with Disabilities (CRPD).[2930]

[2925] The White Paper 'A Bill of Rights for New Zealand' (1985) proposed the enactment of a Bill of Rights that would have the power to strike down inconsistent legislation. This was not accepted by the Parliamentary Select Committee on Justice and Law Reform. See Final Report of the Justice and Law Reform Select Committee "On a White Paper of a Bill of Rights for New Zealand" [1998] AJHR 3.

[2926] New Zealand Bill of Rights Act 1990, s 6 and s 4.

[2927] *Concluding Observations of the United Nations Human Rights Committee on New Zealand* CCPR/C/NZL/CO/6 (31 March 2016) at [10(a)] and [10(c)].

[2928] Human Rights Act 1993, section 21.

[2929] United Nations, *International Bill of Human Rights: Universal Declaration of Human Rights: resolution/adopted by the General Assembly* (1948), https://digitallibrary.un.org/record/670964.

[2930] Ministry of Justice, *International human rights legislation* (Sept. 2022), https://www.justice.govt.nz/justice-sector-policy/constitutional-issues-and-human-rights/human-rights/international-human-rights/international-human-rights-legislation/

OECD AI Principles / G20 AI Guidelines

In May 2019, New Zealand endorsed the OECD AI Principles.[2931]

In June 2020, New Zealand also joined the Global partnership on AI to "support the responsible and human-centric development and use of AI in a manner consistent with human rights, fundamental freedoms and our shared democratic values"[2932] New Zealand is one of 29 member states in GPAI, and participates in the four working groups Responsible AI, Data Governance, Future of Work, and Innovation and Commercialization.[2933]

UNESCO Recommendation on the Ethics of Artificial Intelligence

As a member state since 1946, New Zealand has endorsed the UNESCO Recommendation on the Ethics of AI.[2934] It remains to be seen which steps New Zealand will take to implement the Recommendation in practice.

Evaluation

New Zealand is on its path to adopt a national AI strategy but has not done so yet. New Zealand endorsed the UNESCO Recommendation on the Ethics of AI but it remains to be seen which steps it will take to implement the Recommendation. New Zealand has however already released its Algorithm Charter for Aotearoa. Thus New Zealand has a unique opportunity to draft a national AI strategy in line with both the UNESCO Recommendation on the Ethics of AI and the Algorithm Charter. This would allow the country to carve its own approach to trustworthy AI and protect human rights, and the rights and culture of indigenous people against encroachment by the new technology that is AI.

[2931] OECD, *Forty-two countries adopt new OECD Principles on Artificial Intelligence*, https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[2932] The Global Partnership on AI, https://gpai.ai/

[2933] Our Work, https://gpai.ai/projects/

[2934] United Nations, *193 countries adopt first-ever global agreement on the Ethics of Artificial Intelligence*, (Nov. 25, 2021), https://news.un.org/en/story/2021/11/1106612

Nigeria

National AI Strategy

Nigeria presently has no national AI Strategy. However, pillar 7 of the National Digital Economy Policy and Strategy 2020 – 2030 (NDEPS)[2935] issued by the Federal Ministry of Communications and Digital Economy (the Ministry), considers AI as an emerging technology that must be harnessed for the development of Nigeria's digital economy to attain 7 of the sustainable development goals (SDGs) as prescribed by the United Nations. These SDGs are; poverty eradication; good health and well-being; quality education; decent work and economic growth; industry, innovation, and infrastructure; reducing inequality; and sustainable cities and communities.

To give effect to this, the National Information Technology Development Agency (NITDA), the IT standards regulator for Nigeria in August 2022 made an open call[2936] for both contributors and volunteer experts to help develop Nigeria's national AI policy. The volunteer expert group (VEG) serves as an external working group to NITDA and will provide strategic advice, support, research, drafting, collating, and review on all aspects related to the formulation and implementation of the National AI policy for Nigeria. The formal inauguration of the VEG by NITDA occurred on 19 October 2022. Initial discussions at this inauguration indicate that Nigeria's national AI policy would be framed along different clusters/sectoral applications which are education, healthcare, security, finance, employment, agriculture and supply chain, transportation, and telecommunications with a generalist cluster of application.

In November 2020, the Nigerian government launched[2937] the country's first Artificial Intelligence and Robotics Centre in a bid to position the country for the Fourth Industrial Revolution that is anchored on

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[2935] Federal Ministry of Communications and Digital Economy, *National Digital Economy Policy and Strategy* (2020 – 2030), (Nov. 2019), https://www.ncc.gov.ng/docman-main/industry-statistics/policies-reports/883-national-digital-economy-policy-and-strategy/file

[2936] Voice of Nigeria, *Agency Calls For Contribution To National Artificial Intelligence Policy*, (Aug 11, 2022), https://von.gov.ng/agency-calls-for-contribution-to-national-artificial-intelligence-policy/

[2937] Ogunfowoke A, Innovation Village'*FG Launches Nigeria's first Artificial Intelligence and Robotics Centre'* (Nov. 20, 2020) .https://innovation-village.com/fg-launches-nigerias-first-artificial-intelligence-and-robotics-centre/

emerging technologies. The Centre's focus is to serve as the digital laboratory for advancing skills development and innovation in emerging technologies with an emphasis on AI and the Internet of Things (IoT).

Earlier, Nigeria announced that it was working with the United Arab Emirates on Solar Energy and Artificial Intelligence[2938] after a meeting held in Nigeria between Nigeria's Minister of Science and Technology, and the Ambassador of the United Arab Emirates to Nigeria. The government announced that the National Agency for Science and Engineering Infrastructure would be responsible to develop AI in Nigeria. The government also established Nigeria's Robotics and Artificial Intelligence Centre.

Nigeria Communications Commission (NCC), the telecoms regulator, also announced the establishment of a new department on digital economy under the Office of the Executive Vice Chairman/CEO. The focus of the office is on implementing programs and policies aimed at fully supporting and promoting the national digital economy agenda of Nigeria's Federal Government. The department is domiciled under the office of the Chief Executive Officer to indicate the criticality of the objectives. Nigeria Ministry of Science and Technology announced the goal of ensuring that Nigeria is well suited to the AI economy as critical to driving knowledge and Innovation and creating more job opportunities for Nigeria.[2939]

Public Participation

The Nigerian government has made efforts to involve the public in the development of the National Artificial Intelligence Policy (NAIP). This was evident in the NITDA August call for the contribution of stakeholders in the information technology sector to the development of the AI Policy.[2940]

[2938] O Shogbola _Nigeria and UAE to cooperate on Artificial Intelligence and Solar Energy'_(Oct. 24, 2018), https://perma.cc/GN67-8M8R

[2939] Nigerian Communications Commission (NCC) '_Press Statement: NCC Creates New Department to Accelerate FG's Digital Economy Agenda,_ (Jul 7, 2020), https://www.ncc.gov.ng/media-centre/news-headlines/839-press-statement-ncc-creates-new-department-to-accelerate-fg-s-digital-economy-agenda.

[2940] Nkechi Isaac, '_NITDA Seeks Stakeholders' Contribution To National AI Policy_', _Science Nigeria_ (blog), (Aug 11, 2022), https://sciencenigeria.com/nitda-seeks-stakeholders-contribution-to-national-ai-policy/

AI Oversight & Data Protection

Section 37 of the Nigerian Constitution provides for the right to privacy. Nigeria is yet to enact a data protection law to address data privacy issues in the digital age. Currently, there is a National Data Protection Regulation (NDPR)[2941] and a Data Protection Bill has been drafted.[2942] The scope of the NDPR covers all transactions intended for the processing of personal data of natural persons residing in Nigeria or Nigerian citizens residing in foreign jurisdictions. Data processing under the NDPR includes the collection, recording, storage, retrieval, use, disclosure, transmission, erasure, and destruction of personal data. The stated objective of the NDPR includes;

1) Safeguarding the rights of natural persons to data privacy.
2) Fostering safe conduct for transactions involving the exchange of Personal Data.
3) To prevent manipulation of Personal Data.
4) To ensure that Nigerian businesses remain competitive in international trade through the safeguard, afforded by a sound data protection regulation.

On the other hand, the Data Protection Bill[2943] proposes to establish and provide an efficient regulatory framework to protect personal data, regulate the processing of information relating to data subjects, and safeguard their fundamental rights and freedoms as guaranteed under the Nigerian Constitution. The Bill provides for the establishment of an impartial, independent, and effective regulatory authority that will coordinate data protection and privacy issues. The regulatory authority is expected to superintend over data controllers and data processors within the private and public sectors, and ensure that personal data is processed in accordance with the data protection principles. The Bill seeks to promote a code of practice that ensures the privacy and protection of data subjects' data without unduly undermining the legitimate interests of commercial organizations and government security agencies for such personal data. It

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[2941]HA Kurth, *Nigeria Issues New Data Protection Regulation*, (Apr 25, 2019), https://www.huntonprivacyblog.com/2019/04/05/nigeria-issues-new-data-protection-regulation/

[2942] ITedge, *Nigerian Government Seeks Your Input On Draft Bill On Data Protection*, (Aug 26, 2021), https://itedgenews.ng/2020/08/26/nigerian-government-seeks-your-input-on-draft-bill-on-data-protection/

[2943] Nigerian Communications Commission (NCC), *Draft Data Protection Bill 2020 (Clause 1)*, (2020), https://ncc.gov.ng/documents/911-data-protection-bill-draft-2020/file

also seeks to minimize the harmful effect of personal data misuse or abuse on data subjects and other victims.

The Nigerian Data Protection Regulations 2019 (NDPR) issued by the National Information Technology Development Agency (NITDA) is the applicable data protection law in Nigeria. The NDPR applies to all transactions intended for the processing of personal data and to the actual processing of personal data.

The NDPR is enforced by NITDA and recently the Nigeria Data Protection Bureau (NDPB). The possible sanction for an infringement of the NDPR is:

a) in the case of a data controller dealing with more than 10,000 data subjects, payment of the fine of 2% of the Annual Gross Revenue of the preceding year or payment of the sum of 10 million nairas whichever is greater;

b) in the case of a data controller dealing with less than 10,000 Data Subjects, payment of the fine of 1% of the Annual Gross Revenue of the preceding year or payment of the sum of 2 million nairas whichever is greater.

The Nigeria Data Protection Bureau (NDPB) was not a sponsor of the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[2944] 2020 GPA Resolution on Accountability in the Development and Use of Artificial Intelligence,[2945] or 2022 GPA Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology.[2946]

[2944] International Conference of Data Protection & Privacy Commissioner, '*Declaration on Ethics and Data Protection in Artificial Intelligence'*, http://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf.

[2945] Global Privacy Assembly, *'Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology'*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf.

[2946] Global Privacy Assembly, '*Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence'*, https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf.

Algorithmic transparency

Nigeria established the right to algorithmic transparency provided in art. 3.1 (7) (l) of the NDPR 2020, which requires data controllers to explain the existence of automated decision-making and the logic involved. Such explanation must also meet the standard for transparency prescribed by the NDPR and the data subject must have a right of access to all aspects of the automated decision-making.[2947] The data controller before collecting personal data from the data subject shall provide the data subject with inter alia, information explaining the existence of automated decision-making, including profiling and, at least, in those cases, meaningful information about the logic involved, as well as the significance and the envisaged consequences of such processing for the data subjects.

Under the NDPR this obligation is satisfied by the data controller if such information is provided in a concise, transparent, intelligible, and easily accessible form, using clear and plain language, and for any information relating to a child. The information shall be provided in writing or by other means, including, where appropriate, electronic means. When requested by the data subject, the information may be provided orally, provided that the identity of the data subject is established by other means. This transparency obligation in the use of algorithmic decision-making in the NDPR is also complemented by the right of the data subject to request the data controller to provide access to both the information processed through automated decision-making and the logic involved in the automated decision-making.

AI Research & Development

According to the Director-general of Nigeria's National Information Technology Development Agency (NITDA), the National Centre for Artificial Intelligence and Robotics (NCAIR) is also expected to be a research development center.[2948] The Communications Commission requested a study to assess the ethical and societal impact of AI to achieve

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[2947] Nigerian Communications Commission (NCC), *Draft Data Protection Bill 2020 (Clause 1)*, (2020), https://ncc.gov.ng/documents/911-data-protection-bill-draft-2020/file

[2948] Synced, *Nigerian Government to Set Up the Nation's Centre for AI and Robotics to Empower Students* (Sept. 3, 2020),'https://syncedreview.com/2020/09/04/nigerian-government-to-set-up-the-nations-centre-for-ai-and-robotics-to-empower-students/

economic diversification inclusively and sustainably.[2949] The study concluded that regulators must govern artificial power while it is also the responsibility of programmers and engineers to ensure that ethical and security concerns are addressed during the initial design of these systems. The conclusions of the study urge the NCC to step move forward and develop frameworks for AI in Nigeria.

The private sector and the tech ecosystem are leading in AI initiatives in Nigeria, mostly in the private sector, with some participation from the Nigerian government. A government project was EagleScan, a homegrown plagiarism detection software,[2950] with an AI-driven data analytics and visualization engine.[2951]

The NASS-AI project uses AI to classify parliamentary bills from the national assembly, to make them more accessible. Based on the principle of open data the system ensures that legislative-related documents are complete, accessible, and machine-processable, amongst other requirements.[2952]

In December 2020, the Ministry of Science and Technology announced plans to deploy AI for mining safety and efficiency. The Minister of Science and Technology stated that this deployment would enhance economic diversification inclusively and sustainably, to increase wealth and create more jobs for citizens.[2953]

[2949] Nigerian Communications Commission (NCC), _Ethical and Societal Impact of Artificial Intelligence,_ https://www.ncc.gov.ng/technical-regulation/research/919-ethical-societal-impact-of-artificial-intelligence-ai

[2950] H Tyoemba (2021) '_Federal Govt Launches Home-grown Plagiarism Detection Software_' Vanguard. (2021) https://leadership.ng/federal-govt-launches-home-grown-plagiarism-detection-software/ (Accessed 25 May 2020).

[2951] EagleScan, _About Eaglescan,_ (2023), www.eaglescan.ng.

[2952] T Atoyebi, (07 February 2020) '_NASS AI: Revolutionizing access to Nigeria's legislative bills_' published by Technopreneur. (Feb 7, 2020) https://technopreneur.com.ng/2020/02/07/nass-ai-revolutionizing-access-to-nigerias-legislative-bills/ (Accessed 08 May 2021).

[2953] C Uchechukwumgemezu (09 December 2020) '_Minister: AI to be deployed for mining safety, efficiency_' published by TodayNG https://www.today.ng/technology/minister-deployed-mining-safety-efficiency-331732 (Accessed 03 May 2021).

Facial Recognition

Nigeria plans to use facial recognition technology as an essential part of its digital identification scheme. According to the Director-General of the Nigerian Identity Management Commission (NIMC), the agency has plans to capture the iris of prospective enrollees, and the agency already has the capacity for capturing the iris at its backend.[2954] Also, Access Bank, one of Nigeria's leading financial institutions announced plans to launch a facial recognition payment system that will enable it to verify its customers and to perform transactions without a password.[2955] In addition to this, one of NIMC's licensees for Identity verification in Nigeria says it offers "AI-powered facial recognition technology for e-commerce ID authentication".[2956]

Biometrics

Nigeria has been keen open to adopt biometric technology, yet the same has the implementation has posed risks for been seen to violation ofe human rights, due withto registrations of certain citizens being invalidated, which may result in discrimination and limitation of the exercise of their political rights.

The Nigerian government through the Independent National Electoral Commission (INEC) set a plan to use biometrics (fingerprint and face) matching systems (Automatic Biometric Identification System ABIS and Biometric Voter Accountability System BVAS) in the February 2023 presidential elections. This is despite the systems having invalidated around 2.78 million Nigerians.[2957] In 2021 during the governorship poll in Anambra State the failure of the BVAS system resulted in several votes deemed inconclusive.[2958] Elections for Ekiti State's governorship were held

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[2954] ID4Africa, *EP7 NIgeria's Identity Ecosystem,* (Sep 13, 2021), https://www.youtube.com/watch?v=OgcKzQ8I7_U&t=4605s Watch from 1:18:00.

[2955] The Payper, *Access Bank to launch a facial recognition payment system in Nigeria,* (May 30, 2021), https://thepaypers.com/mobile-payments/access-bank-to-launch-a-facial-recognition-payment-system-in-nigeria-1240957#

[2956] VerifyMe https://verifyme.ng/.

[2957] Frank Hersey, *Calls for Nigeria to Test Integrity of Biometric Matching Systems Ahead of Elections Biometric Update*, (Jan 13,2023), https://www.biometricupdate.com/202301/calls-for-nigeria-to-test-integrity-of-biometric-matching-systems-ahead-of-elections.

[2958] Ayang Macdonald, *Nigeria State Election Suffers Biometric Voter Verification Failures, Polls Declared Inconclusive, Biometric Update*',

successfully with these systems.[2959] Reports from Oyo state showed that 42% of voter registrations were rendered invalid due to duplications.[2960]

The Nigerian Governors forum announced a collaboration with MTN,[2961] the leading telecommunications company, "to mitigate the effect of the COVID-19 pandemic by mining its users' data to profile the states' vulnerability to the spread of the coronavirus[2962]." The outcome of that collaboration is not public and MTN Nigeria denied sharing identifiable user data.

The World Bank issued recommendations to the Nigerian government to invest in AI-enabled Geospatial data to support the response to the COVID-19 crisis and build back better.[2963] Nigeria has multiple data sets, captured across multiple platforms such as Bank Verification Number (BVN), Voter's card, International passport, Road Safety, and National Identification Number (NIN). Reports suggest that the country loses up to US$2 billion annually on biometric data collection duplication.[2964]

(Nov 8, 2021), https://www.biometricupdate.com/202111/nigeria-state-election-suffers-biometric-voter-verification-failures-polls-declared-inconclusive.

[2959] Ibid 43

[2960] The Nation Newspaper, *CVR: 42.3 per Cent of Oyo Registrations Invalid*, (Jun 9, 2022, https://thenationonlineng.net/cvr-42-3-per-cent-of-oyo-registrations-invalid/.

[2961] Nigeria Governors' Forum NGF, *Governors, MTN partner to use data to halt spread of COVID-19,* http://www.ngf.org.ng/index.php/73-featured-news/1564-governors-mtn-partner-to-use-data-to-halt-spread-of-covid-19.

[2962] Communications Week, *MTN Nigeria Denies Sharing Identifiable User Data,* (May 2, 2020), https://www.nigeriacommunicationsweek.com.ng/mtn-nigeria-denies-sharing-identifiable-user-data/.

[2963] J Blummenstock *et al*, *Using Big Data and machine learning to locate the poor in Nigeria,* (Feb 21, 2021), https://blogs.worldbank.org/opendata/using-big-data-and-machine-learning-locate-poor-nigeria.

[2964] Justin Lee, *Nigeria loses $2b annually to agencies' duplication of biometrics data collection,* (Aug 14, 2021), https://www.biometricupdate.com/201708/nigeria-loses-2b-annually-to-agencies-duplication-of-biometrics-data-collection.

Lethal Autonomous Weapons

Nigeria is not a signatory of the Joint Statement on Lethal Autonomous Weapons of 2022[2965] and has not acceded to the Convention. However, the country has participated in several meetings of the Convention on Certain Conventional Weapons (CCW). In 2021, Nigeria issued a joint statement with ten other states, at the CCW Group of Governmental Experts on Lethal Autonomous Weapons Systems (GGE on LAWS) meeting, calling to "adopt a legally binding instrument to ensure the prohibition of autonomous weapons systems."[2966]

Human Rights

Nigeria is a signatory to the Universal Declaration of Human Rights (UDHR),[2967] and a member of the African Union (AU) and has ratified the African Charter on Human and People's Rights.[2968] The rights and freedoms in the treaties signed have been envisaged in Chapter IV of the Nigerian Constitution.[2969] In 2006 the government of Nigeria developed a National Action Plan for the Promotion and Protection of Human Rights (NAP) which was a response to the Recommendation of the Vienna Declaration and Program Action, adopted at the World Conference on Human Rights. NAP was an integrated and systematic national strategy to help realize the advancement of human rights in the country. There have been considerable improvements in the enforcement, promotion, and protection of human rights and freedoms in the country since the transition to democratic rule in 1999.

[2965] CCW, *Joint Statement on Lethal Autonomous Weapons Systems First Committee*, 77th United Nations General Assembly. Conventional Weapons. (Oct. 21, 2022). https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8b NfWGlL/KLw9WYcSnnAm_en.pdf

[2966] Automated Decision Research, *Nigeria. State Positions,* (n.d.) https://automatedresearch.org/news/state_position/nigeria/

[2967] The Danish Institute for Human Rights, '*Signatories for the Universal Declaration of Human Rights'* https://sdg.humanrights.dk/en/instrument/signees/24

[2968] African Union, *African Charter of Human and People's Rights,* (Jun 1981), https://au.int/sites/default/files/treaties/36390-treaty-0011_-_african_charter_on_human_and_peoples_rights_e.pdf

[2969] *Constitution of the Federal Republic of Nigeria*, http://www.nigeria-law.org/ConstitutivonOfTheFederalRepublicOfNigeria.htm#Chapter_4)

According to Freedom House 2022, Nigeria is partly free and has a rating of 43/100[2970] this has reduced from its rating in 2021 when it was 45/100.[2971] This has been attributed to the fact that the country has been facing security challenges, military and law enforcement officers engaging in extra-judicial killings, torture, and abuses. Further, civil liberties are undermined by religious and ethnic bias, women, and LGBT+ people face discrimination, and the media is constantly facing harassment and arrests over political issues.

In 2016, Nigeria joined the United States, Canada, Australia, the United Kingdom, and some European Union states to sponsor a United Nations Resolution that affirms that rights that apply offline must also apply online.[2972]

Section 37 of the Nigerian Constitution provides for the right to privacy while section 37 makes provision for the right to freedom of expression.

Nigeria is a party to the African Charter on Human and Peoples' rights[2973] and the International Covenant on Civil and Political rights.

In 2019, the Nigerian parliament passed a Digital Rights and Freedom Bill[2974] into law but the president declined assent to the Bill, citing possible duplication with other proposed bills and that the Bill was too technical.[2975]

[2970] '*Nigeria: Freedom in the World 2022 Country Report'*, *Freedom House,* https://freedomhouse.org/country/nigeria/freedom-world/2022.
[2971] '*Nigeria: Freedom in the World 2021 Country Report*', Freedom House, https://freedomhouse.org/country/nigeria/freedom-world/2021)
[2972] UN Human Rights Council, *The Promotion, Protection and Enjoyment of Human Rights on the Internet: Resolution Adopted by the Human Rights Council,* 18 July 2016, A/HRC/RES/32/13, https://www.article19.org/data/files/Internet_Statement_Adopted.pdf (Accessed 25 May 2021).
[2973] UN Human Rights, *Ratification Status for Nigeria*, (May 30, 2021) 'https://tbinternet.ohchr.org/_layouts/15/TreatyBodyExternal/Treaty.aspx?CountryID=127&Lang=EN
[2974] Digwatch, (13 March 2018); *Nigerian Senate passes Digital Rights and Freedom Bill,* (Mar. 13, 2018), https://dig.watch/updates/nigerian-senate-passes-digital-rights-and-freedom-bill (Accessed 25 March 2021).
[2975] S Fowowe (20 March 20219)' *Buhari declines assent to Digital Rights and Freedom Bill, four others,* (Mar 20, 2019), https://guardian.ng/news/buhari-declines-assent-to-digital-rights-and-freedom-bill-four-others/ (Accessed 25 May 2021).

OECD/G20 Principles

Nigeria is not a member of the OECD and has not endorsed the OECD AI Principles.[2976] Nigeria submitted only one report to the OECD AI Policy Observatory in relation to policies, strategies, or activities associated with AI. The National AI Policy call for contributions is mapped to two OECD principles: Fostering a digital ecosystem for AI and Providing an enabling policy environment for AI. There is no evidence of the implementation of the OECD AI principles in the country.

UNESCO Recommendation on the Ethics of Artificial Intelligence

Nigeria is a member of UNESCO and participated in the UNESCO AI Recommendations process. Nigeria has endorsed the UNESCO Recommendation on the Ethics of AI.[2977] Nigeria also participates in The African Forum for Ethics and Governance of Artificial Intelligence (AFEGAI), which was created in 2019 following UNESCO's and African Member States' recommendation to establish an African Forum of Association of Artificial Intelligence (AI).[2978] AFEGAI brings together AI constituencies in Africa to support the ethical development of Artificial Intelligence. AFEGAI coordinates AI Governance Forums in Africa.[2979]

The country is partially implementing the recommendations due to the provision on Regulation 3.l (7) (l) the NDPR[2980] that requires transparency of data controllers to data subjects where they use automated decision making. Further, there is the Nigerian Data Protection Regulation

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[2976] OECD, Forty-two countries adopt new OECD Principles on Artificial Intelligence, https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[2977] UNESCO, *UNESCO Member States Adopt the First Ever Global Agreement on the Ethics of Artificial Intelligence,* (April. 21, 2022), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence

[2978] Forum on AI in Africa Summit, *The Benguerir Declaration (*Dec. 13, 2018), https://en.unesco.org/sites/default/files/ai_outcome-statement_africa-forum_en.pdf.

[2979] UNESCO, *Multistakeholder group discusses ten building blocks towards creating inclusive AI policies,* (Jan. 24, 2022), https://en.unesco.org/news/multistakeholder-group-discusses-ten-building-blocks-towards-creating-inclusive-ai-policies

[2980] National Informaiton Technology Development Agency (NITDA), *Nigeria Data Protection Regulation 2019,* (Jan 25, 2019), https://nitda.gov.ng/wp-content/uploads/2020/11/NigeriaDataProtectionRegulation11.pdf.

(2019) and the Data Protection Bill (2022) currently being considered by Parliament[2981].

Evaluation

Nigeria does not have a national strategy for AI but has made efforts to promote public participation in the development of AI policy, although this process is not systematic or consistent.[2982] In terms of data protection, opportunities exist to add to the current legislation the right to algorithmic transparency. Nigeria is a signatory of the UDHR and the African Union Charter but is a 'partially free' country and its record of human rights protection could be further improved. Nigeria's fulfillment of the commitment it has taken by endorsing the UNESCO Recommendation on the Ethics of AI could provide a perfect opportunity to accomplish the reform necessary at national level to turn trustworthy AI into reality for the benefit of all.

[2981] Emmanuel Elebeke and Chiamaka Uwalaka,, *NASS promises speedy passage of National Data Processing Bill,* (Oct 5, 2022), https://www.vanguardngr.com/2022/10/nass-promises-speedy-passage-of-national-data-processing-bill/

[2982] Voice of Nigeria, *Agency Calls For Contribution To National Artificial Intelligence Policy*, (Aug 11, 2022) https://von.gov.ng/agency-calls-for-contribution-to-national-artificial-intelligence-policy/

Norway

National AI Strategy

  The Norwegian Government presented its national artificial intelligence (AI) strategy in January 2020.[2983]

  The objective of the strategy is to outline the policy actions for the coming years in order to maximize the opportunities that AI can bring along for Norwegian individuals, for businesses and industry, and for the public sector. [2984] To achieve this outcome, the national AI strategy highlights the following policy initiatives:

- Expanding the offer of education programs and workplace trainings in the field of AI in order to create a solid basis of digital skills and capabilities;
- Strengthening the Norwegian research in AI;
- Enhancing the innovation capacity in AI in both the private and public sector;
- Outlining ethical principles for AI in order to allow fair, reliable and trustworthy AI-related developments;
- Establishing digitalization-friendly regulations as to define the legislative framework in which AI developments take place;
- Constructing a strong data infrastructure ensuring open data and data sharing across sectors and business areas. Dedicated opportunities for language data resources are established through the Norwegian language bank at the National library;
- Deploying a telecommunication infrastructure that provides high-capacity connectivity and computing power, and that ensures security in AI-based systems.

  In a section dedicated to ethics, the strategy highlights the adoption of the EU ethics guidelines for trustworthy AI[2985] and the OECD AI principles.[2986]

  With regards to the public sector, the national strategy aims to support value creation and use of AI in the public sector; facilitate the

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[2983] The Government of Norward, Ministry of Local Government and Modernization, *The National Strategy for Artificial Intelligence* (Jan. 14, 2020), https://www.regjeringen.no/contentassets/1febbbb2c4fd4b7d92c67ddd353b6ae8/en-gb/pdfs/ki-strategi_en.pdf

[2984] European Commission, *AI Watch* (2020), https://knowledge4policy.ec.europa.eu/ai-watch/norway-ai-strategy-report_en.

[2985] European Commission, *EU Ethics guidelines for trustworthy AI*, April 2019 https://wayback.archive-it.org/12090/20201227221227/https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai

[2986] OECD, *AI Principles* (2019), https://www.oecd.org/going-digital/ai/principles/

sharing of public sector data among public sector agencies; review and update legal barriers to public sector AI, in particular issues regarding data protection and statutory authority; ensure that AI systems used by the government are transparent and explainable; issue guidelines to help public administrations overcome uncertainties.[2987]

Norway has developed centralized, accessible repositories of open public data. In Norway, the Brønnøysund Register Centre and the Norwegian Digitalization Agency have established a national directory of data held by different public agencies, their relationships, what they mean and whether data can be shared and on what terms. [2988].

In 2021, Norway was the only European Free Trade Association (EFTA) country that performed activities to assess the political impact of open data. They launched "data as a resource", which aims to develop a common methodology for measuring and demonstrating the benefits and effects of public data, based on the work done in the EU and the OECD in this area.[2989]

In November 2020, the Supreme Audit Institutions of Norway, Finland, Germany, the Netherlands and the UK jointly published a whitepaper called "Auditing machine learning algorithms for public auditors."[2990] This paper discussed in detail audits of machine learning (ML) algorithms by the Supreme Audit Institution with project management, data, model development, model in production and evaluation. The project auditingalgorithms.net is maintained by The Office of the Auditor General of Norway (*Riksrevisjonen*).

Norway developed its strategy after it signed a Declaration of cooperation on Artificial Intelligence together with 24 other European countries in May 2018.[2991] Several other initiatives in 2018 paved the way for the drafting of the national strategy. For example, the Norwegian Data

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[2987] European Commission, *AI Watch*, '*Norway: Public Sector dimension of AI Strategy*' retrieved by: https://ai-watch.ec.europa.eu/topics/public-sector/public-sector-dimension-ai-national-strategies/norway-public-sector-dimension-ai-strategy_en.

[2988] OECD (2021), *State of implementation of the OECD AI Principles: Insights from national AI policies* (Jun. 18, 2021), https://doi.org/10.1787/1cd40c44-en

[2989] European Commission, '*Open Data Maturity Report 2021*' (Dec. 2021), p.77, https://data.europa.eu/sites/default/files/landscaping_insight_report_n7_2021.pdf#page=5&zoom=auto,-128,19.

[2990] *Auditing machine learning algorithms for public auditors* (Nov. 2020), https://www.auditingalgorithms.net

[2991] European Commission, *EU Declaration on Cooperation on Artificial Intelligence* (Apr. 10, 2018), https://digital-strategy.ec.europa.eu/en/news/eu-member-states-sign-cooperate-artificial-intelligence

Protection Authority (DPA) published a report on artificial intelligence and privacy.[2992] Another report Digital21 focused on national collaboration and encouraged engagement from industry, academia and government.[2993] The Norwegian Board of Technology also published a report, "Artificial Intelligence: Opportunities, Challenges and a Plan for Norway."[2994]

The national AI strategy emphasizes that implementation and progress will be closely reviewed and, if necessary, changed with further AI policies. The frequency with which revised strategy reports will be provided is not specified in the plan.

Nordic-Baltic and Nordic Cooperation on AI

As for the regional landscape, the Norwegian Minister for digitalization signed the declaration on "AI in the Nordic-Baltic region" establishing a collaborative framework on "developing ethical and transparent guidelines, standards, principles and values to guide when and how AI applications should be used" and "on the objective that infrastructure, hardware, software and data, all of which are central to the use of AI, are based on standards, enabling interoperability, privacy, security, trust, good usability, and portability."[2995]

The ministerial declaration Digital North 2.0[2996] builds on the common priorities of the Nordic-Baltic countries, and follows the previous ministerial declaration, Digital North 2017-2020. "In order to promote work with digitalisation, co-ordinate efforts, and follow up on the goals of the declaration, a council of ministers for digitalisation (MR-DIGITAL) was established in 2017. The aim is to promote development in three areas: (1) Increase mobility and integration in the Nordic and Baltic region by building a common area for cross-border digital services; (2) Promote green economic growth and development in the Nordic-Baltic region through data-driven innovation and a fair data economy for efficient sharing and re-use of data; and (3) Promote Nordic-Baltic leadership in the EU/EEA and

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[2992] Datasylnet, *Report on the regulation of privacy and AI* (June 2018), https://iapp.org/media/pdf/resource_center/ai-and-privacy.pdf

[2993] Digital 21, https://digital21.no

[2994] Teknologirådet, *Artificial Intelligence: Opportunities, Challenges and a Plan for Norway* (Nov. 26, 2018), https://teknologiradet.no/en/publication/ai-and-machine-learning-possibilites-challenges-and-a-plan-for-norway/

[2995] Nordic and Baltic Ministers of Digitalization, *AI in the Nordic-Baltic region* (May 14, 2018), https://www.norden.org/en/declaration/ai-nordic-baltic-region

[2996] Nordic and Baltic Ministers of Digitalization, *Ministerial Declaration Digital North 2.0* (Sept. 29, 2020), https://www.norden.org/en/declaration/ministerial-declaration-digital-north-20

globally in a sustainable and inclusive digital transformation of our societies."[2997]

In November 2021, the Nordic and Baltic ministers for digitalization released another joint statement announcing a focus on digital inclusion, striving to implement measures to make digital services more accessible to all Norwegian inhabitants and ensuring that those who do not possess the necessary level of skills get the opportunity to acquire them. [2998]

In September 2022, the Nordic and Baltic ministers for digitalization issued a common statement on the importance of cooperation on digital security in the Nordic-Baltic region following the COVID-19 pandemic and the war in Ukraine. In their common statement, the ministers stressed that this "rapid transformation has challenged everyone to adapt to new, digital ways of doing business, learning and accessing public authorities." The ministers declared that they "have committed to ensuring that our region maintains its position as a leader in digitalisation, and that everyone in the region benefit from digitalisation regardless of age, wealth, education or level of digital skills. One important factor that helps ensure a strong level of digitalisation in the region is the trust citizens put in digital services from the public sector – be it at regional, national or local level. In order to keep up this high level of trust, we need to continue our efforts to make our digital public services human centric and accessible. (…) Robust and secure digital services, safeguarding users' privacy and ensuring that personal data are stored and processed in a trustworthy way, are crucial to the citizens' sustained trust in digital services."[2999]

As part of its action plan for Vision 2030 (2021-2024), the Nordic Council of Ministers identified innovation, digital integration, the safe use of artificial intelligence, data development and open data, education and digitalization as key objectives.[3000] The Nordic Council of Ministers also

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[2997] Nordic Co-operation, *Nordic-Baltic co-operation on digitalisation*, https://www.norden.org/en/information/nordic-baltic-co-operation-digitalisation
[2998] Nordic and Baltic Ministers of Digitalization, *Common statement on the importance of promoting digital inclusion as a central part of the digital transformation in the Nordic-Baltic region* (Nov. 26, 2021), https://www.norden.org/en/declaration/common-statement-importance-promoting-digital-inclusion-central-part-digital
[2999] Nordic and Baltic Ministers of Digitalization, *Common statement on the importance of cooperation on digital security in the Nordic-Baltic region* (Sept. 6, 2022), https://www.norden.org/en/declaration/common-statement-importance-cooperation-digital-security-nordic-baltic-region
[3000] Nordic Council of Ministers, *The Nordic Region – toward being the most sustainable and integrated region in the world, Action Plan for 2021-2024* (Dec. 14, 2020), https://www.norden.org/en/publication/nordic-region-towards-being-most-sustainable-and-integrated-region-world

emphasizes the involvement of civil society in efforts relating to our vision for 2030 thanks to "a Nordic civil society network and public consultations."[3001]

Public Participation

The Norwegian Ministry of Local Government and Modernization published the National Strategy for Artificial Intelligence on January 14th, 2020.[3002] Throughout 2019, the Minister of Digitalization travelled around Norway to listen to suggestions from different communities in order to inform the national strategy. Additionally, a variety of businesses and government agencies provided comments on the content of the through written statements. Close to 50 statements were received by the Ministry.

Norway has worked to strengthen national funding for research and innovation in artificial intelligence, and also to substantially increase their research collaborations. With the Norwegian Artificial Intelligence Research Consortium (NORA.ai), Norway has taken important steps to support the European ambition of increased cross-border co-operation in AI research.[3003]

Data Protection

The European Economic Area (EEA) Agreement is an international agreement which enables three European Free Trade Area (EFTA) States, among which Norway, to participate in the EU Single Market. All relevant EU legislation in the field of the Single Market is integrated into the EEA Agreement so that it applies throughout the whole EEA. The GDPR was incorporated in the EEA Agreement by a 2018 Joint Committee Decision. The new Norwegian Personal Data Act (PDA) implements the GDPR and became effective as of July 2018.[3004] Norway also updated several sector-specific regulations, such as in the healthcare sector, to ensure compliance with the GDPR.

Norway is also a member of the Council of Europe. It ratified the Convention 108 for the protection of individuals with regard to the

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[3001] Nordic Council of Ministers, *Guidelines for involving civil society in work relating to Our Vision 2030* (Feb. 12, 2021), https://www.norden.org/en/publication/guidelines-involving-civil-society-work-relating-our-vision-2030

[3002] European Commission, *AI Watch* (2020), https://knowledge4policy.ec.europa.eu/ai-watch/norway-ai-strategy-report_en.

[3003] Norwegian Artificial Intelligence Research Consortium (NORA), *About NORA*, https://www.nora.ai/about/

[3004] Datasylnet, *Artificial Intelligence and Privacy* (Jan. 2018), https://www.datatilsynet.no/globalassets/global/english/ai-and-privacy.pdf

processing of personal data however it has not ratified its modernized version yet.

The Norwegian Data Inspectorate (*Datatilsynet*) is the national supervisory authority for Norway. The Datatilsynet is in charge of enforcing the GDPR in Norway. Together with the national supervisory authorities of two other EEA countries (Iceland and Liechtenstein), the Datatilsynet became member of the European Data Protection Board (EDPB), however without voting rights and without the right to be elected as chair and vice-chair, for GDPR-related matters.[3005]

In June 2018, the Data Inspectorate released a report on AI and privacy. The report showed how imperative further knowledge about the privacy implications of artificial intelligence is, "not only in order to safeguard the right to privacy of the individual, but also to meet the requirements of society at large.''[3006] In this report, the Datatilsynet provides greater technical detail in describing artificial intelligence, including "the black box", while also taking a closer look at four relevant AI challenges associated with the data protection principles enshrined in the GDPR: fairness and discrimination; purpose limitation; data minimization; and transparency and the right to information. A strong emphasis lays on bringing awareness to the ethical and privacy consequences of AI systems, as well as ensuring that the deployed systems respect privacy by design and meet the legislative requirements.[3007]

The Data Inspectorate is a member of the Global Privacy Assembly (GPA) since 2002. It did not endorse the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence.[3008] However it did co-sponsor the 2020 GPA Resolution on AI Accountability[3009] and the 2022 GPA Resolution on Facial Recognition Technology.[3010]

[3005] Data Protection Law of the World, *Norway Data Protection Authority* (Jan. 2021), https://www.dlapiperdataprotection.com/index.html?t=authority&c=NO

[3006] Datasylnet, *Report on AI and privacy* (June 2018), https://iapp.org/media/pdf/resource_center/ai-and-privacy.pdf

[3007] Datatilsynet, *Report on AI and privacy* (June 2018), https://iapp.org/media/pdf/resource_center/ai-and-privacy.pdf

[3008] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[3009] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[3010] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022),

The Datatilsynet has been very active in both enforcement and publication of guidelines on a wide range of significant data protection concerns, including CCTV surveillance and codes of conduct. The Norwegian data protection authority has made a list of processing activities that they believe are likely to pose a significant risk to data subjects' rights and as such will always necessitate a data protection impact assessment. These include: processing of biometric data for identification purposes on a large scale; collecting and combining personal data from third parties in order to decide whether the data subject shall be offered, continue to receive, or shall be denied a product, service or offer; monitoring employees' internet activity, electronic communication or camera surveillance for the purposes of employee monitoring; systematic monitoring, including camera surveillance, on a large scale, in areas accessible by the public[3011]

Following a data protection impact assessment of Facebook, the Data Inspectorate announced that it will no longer communicate via the social media network. "We believe the risks to the users' rights and freedoms associated with the processing of personal data through a Page on Facebook are too high" stated by Datatilsynet Director-General Bjorn Erik Thon.[3012] This is not the first time the Data Inspectorate is opposing Facebook. Back to 2012, the Datatilsynet raised important concerns regarding Facebook's facial recognition tool. Bjorn Erik Thon stated that "It's a very powerful tool Facebook has and it's not yet clear how it all really works," and "They have pictures of hundreds of millions of people. What material Facebook has in its databases is something we need to discuss with them."[3013]

In December 2021, the Datatilsynet issued its highest fine so far - 65 million NOK (around 6.5 million euros) - against Grindr for failing to

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https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[3011] Datatilsylnet, *Processing operations subject to the requirement of a data protection impact assessment*. https://www.datatilsynet.no/globalassets/global/dokumenter-pdfer-skjema-ol/regelverk/veiledere/dpia-veileder/dpialist280119.pdf

[3012] Datasylnet, *Norwegian Data Protection Authority choose not to use Facebook* (2021), https://www.datatilsynet.no/en/news/2021/norwegian-data-protection-authority-choose-not-to-use-facebook/

[3013] Bloomberg, *Facebook faces facial recognition fight in Norway* (Aug. 4, 2012), https://www.bloomberg.com/news/articles/2012-08-02/facebook-faces-norway-probe-over-facial-recognition-photo-tags

comply with the consent requirements under the GDPR.[3014]. Grindr has appealed the fine and the Norwegian Data Protection Authority will now assess the relevant appeal and consider whether there is grounds to rescind or alter the decision. By application of the the Norwegian Public Administration Act, the Norwegian Consumer Council will also issue an opinion on the subject matter. If the decision is not rescinded/altered, the case may be assessed by the Privacy Appeals Board.[3015]

Algorithmic Transparency

Although it has not yet ratified the Protocol amending the Convention 108 which provides for algorithmic transparency, Norway is subject to the PDA, implementing the GDPR. Norwegians have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[3016]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[3017] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be

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[3014] The International Association of Privacy Professionals (IAPP), *2022 Global Legislative Predictions*, https://iapp.org/media/pdf/resource_center/2022_iapp_global_legislative_predictions.pdf.

[3015] Datatilsynet, '*Grindr has appealed the administrative fine imposed by the NO DPA*' (Feb. 2022), retrieved by: https://www.datatilsynet.no/en/news/aktuelle-nyheter-2022/datatilsynet-har-mottatt-klage-pa-overtredelsesgebyr-i-grindr-saken/

[3016] See Recital 63 and Article 22 of the GDPR.

[3017] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

subject to particularly high standards as regards the explainability of processes and outputs."[3018]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[3019]

Facial Recognition

In September 2022, the Norwegian Consumer Council urged "the Governement to take[3020] a more active role to ensure Norwegian consumers' privacy and turn words into action." Drawing on a report from the Privacy Commission report,[3021] the Consumer Council noted that the use of remote biometric identification, including facial recognition, puts great pressure on privacy. The Consumer asks the Government to support the proposal for a general ban on the use of facial recognition in public spaces.

Regulatory Sandbox

Pursuant to the national AI strategy, the Datatilsynet has created a regulatory sandbox for responsible AI. The goal is to promote the development of innovative artificial intelligence solutions that, from a data protection perspective, are both ethical and responsible. The sandbox provides free guidance to a handful of companies, of varying types and

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[3018] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[3019] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[3020] Forbrukerrådet, *Forbrukerrådet ber Regjeringen ta personverngrep* (Sept. 26, 2022), [MT] https://www.forbrukerradet.no/siste-nytt/forbrukerradet-ber-regjeringen-ta-personverngrep/

[3021] *Ditt personvern – vårt felles ansvar — Tid for en personvernpolitikk* (Sept. 26, 2022), [MT] https://www.regjeringen.no/no/dokumenter/nou-2022-11/id2928543/

sizes, across different sectors, selected through regular calls for application issued by the Data Inspectorate, in exchange for full openness about the assessments that are made.[3022]

As illustrated in the proposed Norwegian state budget for 2023, the regulatory sandbox is now to be financed as a permanent initiative, not as a temporary pilot project as it was the previous two years.[3023]

Lethal Autonomous Weapons

Norway has regularly participated in the Convention on Certain Conventional Weapons meetings.[3024] In June 2020, the ethics committee of the Norwegian Government Pension Fund Global[3025] recommended in June 2020 that the Fund add lethal autonomous weapons systems to the exclusion list of weapons that it will not invest in.[3026] In June 2021, Norway's parliament voted in favor of a proposal to add new criteria to the fund's policy, following endorsement by the Ministry of Finance. The proposal was aimed at breaking ties the fund may have with companies that sell weapons to parties that use them to violate international humanitarian law.[3027]

[3022] The International Association of Privacy Professionals (IAPP), *2022 Global Legislative Predictions*, https://iapp.org/media/pdf/resource_center/2022_iapp_global_legislative_predictions.pdf.

[3023] Datatilsynet, *Starting regulatory sandbox for the development of responsible artificial intelligence* (May 26, 2020), https://www.datatilsynet.no/aktuelt/aktuelle-nyheter-2020/regulatorisk-sandkasse-for-utvikling-av-ansvarlig-kunstig-intelligens/

[3024] *Statement by Norway in the First Committee Thematic Discussion under the cluster of weapons of mass destruction* (Oct.19, 2022), https://www.norway.no/en/missions/UN/statements/general-assembly-committees/2022/1c-conventional-weapons/

[3025] "The purpose of the Government Pension Fund is to facilitate government savings to finance rising public pension expenditures, and support long-term considerations in the spending of government petroleum revenues", https://www.regjeringen.no/en/topics/the-economy/the-government-pension-fund/id1441/

[3026] Human Rights Watch, *Stopping Killer Robots: Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control* (Aug. 10, 2020) https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and#_ftn195; Human Rights Watch, *An Agenda for Action Alternative Processes for Negotiating a Killer Robots Treaty* (Nov. 10, 2022), https://www.hrw.org/report/2022/11/10/agenda-action/alternative-processes-negotiating-killer-robots-treaty.

[3027] Sovereign Wealth Funds, *The proposal was aimed at breaking any links the fund may have to companies that sell weapons to parties that use them to violate humanitarian law* (June 10, 2021), https://www.pionline.com/sovereign-wealth-funds/norwegian-parliament-calls-further-weapons-exclusions-wealth-fund

Norway was one of the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[3028]

Norway also submitted a working paper together with Sweden, Finland, France, Germany, the Netherlands, and Spain to the 2022 Chair of the Group of Governmental Experts on emerging technologies in the area of Lethal Autonomous Weapons Systems.[3029] This working paper presents a two-tier approach. Accordingly, States should commit to (1) outlaw fully autonomous lethal weapons systems operating completely outside human control and a responsible chain of command, and (2) regulate other lethal weapons systems featuring autonomy in order to ensure compliance with the rules and principles of international humanitarian law, by preserving human responsibility and accountability, ensuring appropriate human control and implementing risk mitigation measures.

In February 2023, Norway participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Norway endorsed a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[3030] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national,

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[3028] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[3029] *Documents from the 2022 CCW Group of Governmental Experts on lethal autonomous weapon systems. Convention on Certain Conventional Weapons*, https://reachingcriticalwill.org/disarmament-fora/ccw

[3030] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[3031]

OECD / G20 AI Principles

Norway is a member of the OECD and endorsed the OECD AI Principles.[3032] In terms of ethical principles, the Norwegian government seeks to encourage responsible, accountable, transparent, and trustworthy AI while protecting integrity and privacy.[3033]

Norway is supporting the OECD AI principles by fostering a digital ecosystem for AI with the National Data Catalogue.[3034] This is a public website providing an overview of descriptions of datasets, concepts, APIs and information models. Both the public and private sectors are involved in this project. This project was established by the Brønnøysund Register Centre and the Norwegian Digitalization Agency. To further the outreach of the overall project to the private sector the government funded the creation of the Data Factory, a new interface of the catalogue to make navigation easier for the public and companies.[3035] Within the Data Factory, a community named "Data Village" has also been built as a community of practice in various dataset categories. "NORA.ai" also created the Norwegian AI Directory to map out all the activities within the field of AI in Norway[3036]. In addition, "NORA.startup" has been established as an ecosystem of new companies in the field of AI that has gone through a

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[3031] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[3032] OECD, *Forty-two countries adopt new OECD Principles on Artificial Intelligence* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[3033] Norway, *National Strategy for Artificial Intelligence* (Jan. 14, 2020) https://www.regjeringen.no/en/dokumenter/nasjonal-strategi-for-kunstig-intelligens/id2685594/

[3034] Norge.no, *National Data Catalogue*, https://www.norge.no/en/service/national-data-catalog

[3035] *Datafabrikken*, https://datafabrikken.norge.no

[3036] *Norwegian AI Directory*, https://aidirectory.no

quality assurance process to ensure the startups are active in research-based innovation. These startups are registered as part of a larger ecosystem that Norway is part of called "the European AI Startup Landscape" together with France, Germany and Sweden. NORA.ai, the Norwegian Open AI Lab (NAIL) and Cluster for Applied AI in Halden jointly contribute to this digital ecosystem.

In March 2022, Norway announced the launch of another initiative, outlined in its national strategy, that supports OECD's international cooperation for trustworthy AI principles.[3037] The Norwegian Ministry of Research and Education has signed an agreement with the US Department of Energy to cooperate more closely on research, innovation, education and ethical issues in the field of AI. The goal of the agreement is to develop methods and technologies to solve challenges in areas such as climate, energy and health. The agreement facilitates cooperation in the form of joint research and innovation projects, exchange of researchers and students, sharing of technology and equipment, joint educational programs and further development of ethical and responsible use of technology. Examples of research include: Carbon capture and storage, smarter energy systems, better climate modeling, and enhanced personalized medicine.

In September 2022, Norwegian Research Council announced a 10-year financial support for Integreat, a purely AI focused Center of Excellence (CoE) that will offer groundbreaking research, and develop theories, methods, models, and algorithms from a sociological perspective that integrate general and domain-specific knowledge with data, laying the foundations of the next generation of machine learning. This initiative supports OECD's principle of shaping an enabling policy environment for AI, and corresponds to the policy goal identified in the Norway's AI strategy to strengthen research in AI, and enhance the innovation capacity in AI in both the private and public sector.[3038]

However, Norway is not a member of the Global Partnership on AI, a multi-stakeholder initiative which aims to foster international cooperation

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[3037] *Memorandum of understanding between the Department of Energy of the United States of America and the Royal Ministry of Education and Research of the Kingdom of Norway on Collaboration on Artificial Intelligence and its applications to Science, Climate Energy and Health* (March 2022), https://www.regjeringen.no/contentassets/110ee1b82d8a4478991faa95cc95d895/signerte-dokumenter-mou-on-collaboration-on-ai-and-its-applications-to-science-climate-energy-and-health.pdf

[3038] Norwegian Artificial Intelligence Research Consortium, *A new centre of excellence on AI will be funded by the Research Council of Norway*, https://www.nora.ai/news-and-events/news/a-new-centre-of-excellence-on-ai-will-be-funded-by.html

on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[3039]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Norway has endorsed the UNESCO Recommendations on AI, the first ever global agreement on the ethics of AI.[3040] It remains to be seen how this endorsement will translate in practice.

Human Rights

Norway is a signatory to many international human rights treaties and conventions, among which the Universal Declaration of Human Rights and the Council of Europe's European Convention on Human Rights.[3041] However, it has not yet ratified the modernized version of the Council of Europe Convention 108 for the protection of individuals with regard to the processing of personal data.[3042]

According to Freedom House, Norway typically ranks among the top nations in the world for the protection of human rights and transparency. "Norway is one of the most robust democracies in the world. Elections are free and fair, and power regularly rotates between parties. Civil liberties are respected, with independent media and civil society actors holding the government to account."[3043] It consequently earns a perfect 100/100 score.

Diversity in AI is valued in Norway through prioritizing the development of language technology systems that support communications in Norwegian, Sámi and other dialects. The aim is to protect the indigenous rights of the Sámi people, a Finno-Ugric-speaking people inhabiting the region of Sápmi that Norway is part of. This focus on the Sámi language is also included in the Norwegian National AI Strategy.

[3039] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/

[3040] United Nations Educational, Scientific and Cultural Organization (UNESCO), *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (Nov. 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence.

[3041] NIM, *The Human Rights Framework in Norway*, https://www.nhri.no/en/2019/the-human-rights-framework-in-norway/

[3042] Council of Europe, *Chart of signatures and ratifications of Treaty 223*, https://www.coe.int/en/web/conventions/full-list?module=signatures-by-treaty&treatynum=223

[3043] Freedom House, *Freedom in the World 2023– Norway (2022)*, https://freedomhouse.org/country/norway/freedom-world/2022

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[3044]

Evaluation

Norway has a full-fledged national AI strategy and AI ethics is a central topic. Norway endorsed the OECD AI Principles and is committed to developing trustworthy AI. Norway benefits from a strong AI oversight framework with an active Privacy Commission, Consumer Council and Data Inspectorate. Norway should make sure to allocate sufficient resources to ensure effective enforcement of existing rules, and soon enough, of the EU AI Act once incorporated in the EEA Agreement. Concerns exist with regard to facial recognition in public places and would need to be addressed by the government. Although Norway ranks high in the protection of civil liberties, the ratification of the protocol modernizing the Convention 108 could only strengthen human rights protection in the digital age. It also remains to be seen how Norway's endorsement of the UNESCO Recommendation on the Ethics of Artificial Intelligence will translate in practice.

[3044] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

Pakistan

National AI Strategy

Pakistan is a socially conservative country, where an overwhelming majority of the population is Sunni Muslim. The extended family system still prevails, even in large urban areas. Ethnic, clan and tribal affiliations continue to dominate personal, social, economic and political life. The introduction of internet connectivity in such a context has caused a ripple effect in societies universally, and Pakistan is no exception. As such, concepts of individual rights and privacy as understood in advanced economies differ greatly from values currently in practice in Pakistan – and both the policy and legal landscape and social practices clearly demonstrate these deeply held values.

For instance, as detailed later in the report, Pakistan's legal system, based on British common law from the colonial era, discriminates openly against women – treating them as second class citizens and stripping them of their fundamental human rights, including the right to privacy, autonomy, legal personage and presumption of innocence. Similarly, the interpretation of fundamental human rights is largely rejected by a society more comfortable with organizing itself based on the leadership of an all-powerful clan, tribal or community leader – almost always male. This has led to a series of popular military coups staged by benevolent dictators in this 75-year-old fledgling democracy. It also explains the overarching and interventionist authority of the armed forces in matters of the state.

This political, legal and human rights context is mirrored accurately by existing policy with regard to information technology, and by extension, the absence of any mention of ethical and trustworthy AI and algorithmic decision-making.

In December 2021, the Federal Minister of Information Technology & Telecommunication (MoITT), Syed Aminul Haque, announced that the Pakistani government plans to introduce a national AI policy.[3045] This policy is intended to focus on AI investment, development, and providing research funding to educational institutions to increase AI expertise.[3046] However, the technology-championing government of Pakistan at the time, led by former Prime Minister Imran Khan, was deposed in a vote of no-

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[3045] The News, *Centre to introduce national AI policy soon, says Amin* (Dec. 5, 2021), https://www.thenews.com.pk/print/914203-centre-to-introduce-national-ai-policy-soon-says-amin
[3046] Aqib Rauf Abbasi, *Ministry of IT to Formulate New Policy on AI,* propakistani (2022), https://propakistani.pk/2022/07/26/ministry-of-it-to-formulate-new-policy-on-ai/

confidence on April 10, 2022, plunging Pakistan into political instability.[3047] The very next day, an interim government was formed[3048]. As the former ruling party of Pakistan prior to this, the government of Mian Shahbaz Sharif, a former Chief Minister of Punjab, Pakistan's most populous and technologically most advanced province,[3049] has been the pioneer of many of the earlier initiatives established in Pakistan in terms of IT infrastructure and digital policy.

Since then however, no noticeable progress on the substantial groundwork already laid with regard to AI and Digital Policy in Pakistan due to a series of crises related to political instability and the aftermath of climate-change-induced floods of 'biblical'[3050] proportions in August 2022,.

The concept of "Digital Pakistan" was first introduced at the state level after a record year of revenues from software exports in 2016-2017[3051]. Official language focused on getting more citizens digitally connected, literate and brought under the government's data collection umbrella. It also mentioned the need for both digital skills training and the support of entrepreneurship in this area.[3052]

A year later, the MoITT issued the 2018 Digital Pakistan Policy. This policy includes the need to develop necessary policy frameworks, laws, and rules to enable the creation of a sustainable IT environment, including the enactment of a data protection and privacy law.[3053] In

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[3047] Madiha Afzal, *What Is Happening In Pakistan's Continuing Crisis?,* Brookings Institution blog,
(May 20, 2022), https://www.brookings.edu/blog/order-from-chaos/2022/05/20/what-is-happening-in-pakistans-continuing-crisis/

[3048] National Public Radio news website, *Pakistani Lawmakers To Elect New Prime Minister After Imran Khan Ouster,*
https://www.npr.org/2022/04/11/1091983070/pakistani-lawmakers-to-elect-new-prime-minister-after-imran-khan-ouster

[3049] Punjab Information Technology Board official website, *Government of Punjab, Pakistan*, https://pitb.gov.pk/

[3050] Mohammed Hanif, *Pakistan's Biblical Floods and the Case for Climate Reparations*, The New Yorker Magazine (Sept. 26, 2022), https://www.newyorker.com/news/annals-of-a-warming-planet/pakistans-biblical-floods-and-the-case-for-climate-reparations

[3051] Pakistan Economic Survey 2016-2017, Chapter 13:Transport and Communication, p.221, "the
Information Technology sector is exhibiting accelerated progress with total IT turnover of USD 3.1 billion," https://www.finance.gov.pk/survey/chapters_17/13-Transport_and_Communications.pdf

[3052] Apoorva Sudhakar, *Digital Pakistan – Ideas, Potential and Challenges*, NIAS Pakistan Reader (Aug. 17, 2021),
https://globalpolitics.in/view_cir_articles.php?url=Pakistan%20Reader&recordNo=631

[3053] Ministry of Information & Broadcasting, *Digital Pakistan Policy* (2018), http://moib.gov.pk/Downloads/Policy/DIGITAL_PAKISTAN_POLICY(22-05-2018).pdf

December 2019, former Prime Minister Imran Khan launched the Digital Pakistan Vision. This initiative set out Pakistan's digital ambition and was designed for the government and the private sector to work towards a digitally progressive and inclusive Pakistan.[3054] The five strategic pillars that upheld the Vision were access and connectivity, digital infrastructure, e-government, digital skill and literacy, and innovation and entrepreneurship.[3055] The vision focused heavily on human-centered development. Official language around the launch of the vision referred to the development of the inherent potential of the demographic youth bulge, and their existing tech-savviness and innovative mindset. It lauded the potential of widespread access and connectivity to transform the lives of all Pakistanis across all domains, and promised to provide investment opportunities from diaspora communities to support in the human and social development of the country. There was however no reference made to human-centered AI.

In 2021, the MoITT announced a new "Digital Pakistan Policy" [3056] with the aim to "improve citizens' quality of life and economic well-being by ensuring the availability of modern, affordable, and reliable digital services."[3057] The release of the Digital Pakistan Policy was initially planned for August 2021 but has been delayed.[3058] Since then, may changes have taken place in emerging technologies, making it necessary to cover them in a New Digital Pakistan Policy. The Ministry of IT and Telecom began working on Digital Pakistan Policy 2022 keeping in view current emerging technologies and Digital Pakistan Policy 2018, National Broadband Policy

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[3054] Dawn, *Full potential of youth, women will be unleashed,' says PM on launch of Digital Pakistan Vision* (Dec. 5, 2019), https://www.dawn.com/news/1520609/full-potential-of-youth-women-will-be-unleashed-says-pm-on-launch-of-digital-pakistan-vision

[3055] The Express Tribune*, PM Imran Khan launches 'Digital Pakistan' initiative* (Dec. 5, 2019), https://tribune.com.pk/story/2112360/digital-pakistan-pm-imran-addresses-launch-ceremony

[3056] Ministry of Information Technology & Telecommunication, *Government of Pakistan, Digital Pakistan Policy* http://moib.gov.pk/Downloads/Policy/DIGITAL_PAKISTAN_POLICY(22-05-2018).pdf

[3057] Digital Pakistan, *MOIT releases Digital Pakistan Policy priorities for 2021* (Aug. 5, 2021), https://digitalpakistan.pk/blog/moit-releases-digital-pakistan-policy-priorities-for-2021/#:~:text=A%20key%20goal%20of%20Digital,digit... See also Business Recorder, *Digital Pakistan Policy 2021 Road* Show, Recorder Report (Mar. 25, 2021), https://www.brecorder.com/news/40077321

[3058] Ministry of Information Technology & Telecommunication, Government of Pakistan*, Policies & Plan,* https://moitt.gov.pk/Detail/ZTA5MTI4ZWUtMzdhMS00ZDRhLWE0YmUtZjJjNThhYTdjNzdl

2021, and National Freelancing Facilitation Policy. According to MoITT officials,[3059] the government wants targets to be set under the New Digital Pakistan Policy, defining tasks and the institutions that will carry out these tasks, and incentives to be given to the IT sector. The ministry had prepared an initial draft of the new Digital Pakistan Policy in February 2022, but presumably due to recent and continuing political instability in the country,[3060] it has not been processed.

A few other initiatives also aim for Pakistan to bridge the digital divide. In 2018, the Presidential Initiative for AI and Computing (PIAIC) sought to reshape Pakistan by revolutionizing education, research, and business by adopting the latest technologies. The PIAIC envisioned Pakistan becoming a global hub for AI, data science, cloud-native computing, edge computing, Blockchain, augmented reality, and the internet-of-things.[3061] Also in 2018, the National Center of Artificial Intelligence was created.[3062] The mission of the National Center is to "establish and grow AI industry following international trends and seek solutions to the indigenous problems of Pakistan through AI to reinvent our knowledge-based economies."[3063] The National Center "recognize[s] the challenging ethical issues involved in a society pervaded by AI applications. We must: Maintain the highest standards of ethical behavior with a deep respect for human and civil rights guarantee, complete transparency of our operations and take into account the moral and ethical concerns of society. Treatment of data sets, and particularly those containing personal data, must always meet the principles of data protection by design and by default."[3064] Since 2019, the annual Pakistan Artificial Intelligence Summit[3065] brings academic, industry and government representatives together to discuss the most pressing issues confronting artificial intelligence and ICT in general in Pakistan.

[3059] Zakir Ahmed, *Final Dialogue on New Digital Pakistan Policy Draft Next Month* (Aug. 16, 2022), https://propakistani.pk/2022/08/16/ministry-of-it-to-hold-final-dialogue-on-draft-new-digital-pakistan-policy/

[3060] Madiha Afzal, *Pakistan: Five major issues to watch in 2023*, Brookings Institution website commentary (Jan. 13, 2023) https://www.brookings.edu/blog/order-from-chaos/2023/01/13/pakistan-five-major-issues-to-watch-in-2023/

[3061] *Presidential initiative for Artificial Intelligence and Computing (PIAIC),* https://www.piaic.org

[3062] National Center of Artificial Intelligence (NCAI), https://ncai.nust.edu.pk/

[3063] Ibid.

[3064] Ibid.

[3065] Pak AI Summit, *Event Brief* (Mar. 29, 2022), https://pakaisummit.com/public/archive-22/

Pakistan was one of the 11 countries which signed the Riyadh AI Call for Action Declaration (RAICA) launched during the 2022 Global AI Summit.[3066] This declaration was signed by all members of the Digital Cooperation Organization (DCO) and is a commitment to identify and address present, emerging, and future humanitarian issues in the field of AI. The declaration highlights seven key pillars through which AI can be used as a tool to benefit lives around the world – bridging the digital divide, empowering underprivileged communities, promoting digital development, ensuring fairness and non-discrimination, driving innovation in AI, combatting climate change in AI, and engaging in international collaboration and cooperation in AI. With a stong human-centered AI, focus, the Declaration refers repeatedly to the promise and potential of AI to transform societies, economies, and humanity's most pressing global issues, including climate change. The Declaration calls explicitly for the creation, adoption and promotion of comprehensive AI ethical guidelines and appeals to signatory countries to work with various stakeholders, from humanitarian organizations to innovative companies, to employ AI to advance universal human rights.[3067]

In October 2022, the Government of Pakistan announced the China-Pakistan Digital Corridor, with a component of AI collaboration, building on the Sino-Pak strategic relationship through the China-Pakistan Economic Corridor.[3068] The former Additional Director-General of the Federal Investigation Agency and founder of Digital Pakistan expressed that Pakistan must collaborate with China to develop AI capabilities, specifically naming cybersecurity as a primary collaborative area. This corridor is intended to use AI to improve areas like food security, agricultural development and green development. As a first step towards the establishment of this corridor, an international AI Conference was being planned for 2023 where the private sector, government, and international donors would participate and engage to inform the implementation of the corridor.[3069] When asked about the status of this conference, the Director for the National Centers for AI in Pakistan, Dr. Yasar Ayaz, pointed instead

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[3066] WIRED, *The Key wins of Saudi Arabia's Global AI Summit* (Sept. 27, 2021), https://wired.me/technology/saudi-arabia-global-ai-summit/

[3067] See Digital Cooperation Organization, *Riyadh AI Call for Action (RAICA) Declaration*, https://www.dcoinsights.com/RAICA/#chapter-preview.

[3068] The Tribune, *Pak-China digital corridor to boost IT cooperation* (Oct. 22, 2022), https://tribune.com.pk/story/2382841/pak-china-digital-corridor-to-boost-it-cooperation

[3069] Zafar Hussain, *China-Pakistan Digital Corridor to enhance cooperation in IT sector: Pakistani Ambassador* (Oct. 10, 2022), https://en.ce.cn/Insight/202210/21/t20221021_38186192.shtml

to the Third International Conference on Artificial Intelligence held in February 2023,[3070] proceedings of which are yet to be made publicly available.[3071]

Public Participation

In keeping with a culture of regional and neighborhood-based political decision-making, the government of Pakistan does not offer centralized public participation opportunities to citizens per se. However, in an unprecedented first, in 2021 the Ministry of Information Technology and Telecommunications launched an online survey form which provided citizens the opportunity to weigh in on the Digital Pakistan Policy.[3072] The Ministry then issued a consultation draft of the 2021 Personal Data Protection Bill[3073] Accompanying this, the Ministry conducted a road show in the large Pakistani cities and issued press statements to publicize the drafting of the Policy and the accompanying bill. [3074]

In addition, since 2018, citizens have had access to the Prime Minister's *Performance Delivery Unit* (PDU) – an online platform offering direct connection between the Government and citizens. One of PDU's initiatives is the *Citizen's Portal* - an app where citizens can submit and track complaints and make requests directly to the relevant government body. To date, the portal—which is available as a mobile phone app as well, registered over 4.9 million complaints, of which over 4.8 million have been resolved. The portal has a participation rate of over 4 million Pakistani citizens. Further, success stories and testimonies aree published on the website and promoted through social media. The portal continues to serve as a direct conduit for information flowing between the government and Pakistani citizens.

The government also provides information and instruments through which members of the public may express opinions, communicate

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[3070] Video of the 3rd International Conference on Artificial Intelligence (ICAI 2023), https://www.facebook.com/reel/1356371861872319/

[3071] Report on the 2nd International Conference on Artificial Intelligence (ICAI 2022), https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=9773454

[3072] The link to this website has since been taken down and is no longer accessible.

[3073] *Pakistan Personal Data Protection Bill consultation draft*, https://www.moitt.gov.pk/SiteImage/Misc/files/25821%20DPA%20Bill%20Consultation%20Draft(1).pdf

[3074] Business Recorder, *Digital Pakistan Policy 2021 Road Show,* Recorder Report (Mar. 25, 2021), https://www.brecorder.com/news/40077321

complaints, or make recommendations on draft and existing policy.[3075] Published policies typically include either a specific email address for feedback/queries, and/or general contact information—such as the Ministry's email address, phone number and resource person.[3076]

Language is a primary obstacle regarding the accessibility of most of these tools. While government websites are bilingual, policy documents within the websites are published exclusively in English, with no translation available. As more than 50% of Pakistan's population cannot read or write English, this serves as a major impediment to meaningful public participation from all levels of society.[3077]

Data Protection

In 2021, the MoITT introduced a consultation draft of the Personal Data Protection Bill (PDPB).[3078] The Federal Cabinet approved the Personal Data Protection Bill in February 2022.[3079] The MoITT Minister stated that the objective of the new legislation is to protect individuals and business communities' data and to provide them with a safe environment.[3080] As of August 2022, the Personal Data Protection Bill (PDPB) was announced to be in the final stages of approval.[3081] The promulgation of law usually occurs in Pakistan after a period of public consultation, approval by both the Senate and the lower house of Parliament, and formal assent from the President[3082]. The last step does not seem to have taken place yet.

[3075] Ministry of Information Technology & Telecommunication, *Contact Us*, https://moitt.gov.pk/Detail/MTBlNDNlNzItOTJkMi00OTg5LTlmNDgtNDEzZDA1NDljM2E4

[3076] Ministry of Information Technology & Telecommunication, *Draft Policies,* https://moitt.gov.pk/Detail/NzUyZGE0MWMtMmYzZC00YmIzLTk2ODUtYmVjNTk1Nzg4MTBm

[3077] *Here's How Pakistan Ranks Among World's English Speaking Countries,* Express Tribune (Nov. 19, 2016), https://tribune.com.pk/story/1236300/heres-pakistan-ranks-among-worlds-english-speaking-countries/

[3078] Ministry of Information Technology & Telecommunications, *Personal Data Protection Bill 2021 Consultation Draft: V.25.08.2021*, https://moitt.gov.pk/Detail/YjVmNzU0MWMtYzBkMC00Yjg5LTk1ODktOTJiODYzZTY5ZWRk

[3079] Kalbe Ali, *Federal Cabinet approves Cloud First Policy, Personal Data Protection Bill*, Dawn (Feb. 16, 2022), https://www.dawn.com/news/1675330

[3080] Tahir Amin, *Cabinet likely to approve 'Personal Data Protection Bill' today*, Business Recorder (Feb. 15, 2022), https://www.brecorder.com/news/40154515

[3081] https://www.brecorder.com/news/40194775/moitt-working-on-draft-of-national-data-governance-policy

[3082] https://www.dlapiperdataprotection.com/index.html?t=law&c=PK#:~:text=There%20is%20currently%20no%20registration,devise%20the%20appropriate%20registration%20r

The PDPB will govern the collection, processing, use, and disclosure of personal data and sanctions against violations of data subjects' rights.[3083] The PDPB provides for rights regarding automated processing, including profiling: A data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling.[3084] The PDPB also provides for data subject rights with regard to the processing of personal data in clause 29 in the following words: "a data controller shall not process any sensitive personal data of a data subject except in accordance with the following conditions: a) the data subject has given his explicit consent to the processing of the personal data provided that this consent is not restricted by any other applicable law"[3085] However, immediately after this text, the draft mentions a list of caveats including legal compulsions, employment law, inability of data subject to provide consent, medical purposes, even "in order to protect the vital interests of the data subject or another person." This provides great leeway in the interpretation of these proposed rules, and raises concerns as to their potential interpretation in Pakistan.

The PDPB also provides for the establishment of a "National Commission for Personal Data Protection of Pakistan", variously referred to as the Personal Data Protection Authority of Pakistan, within six months after the entry into force of the legislation. The authority is purported to have the same independent status as the Civil Courts: "The Authority shall be competent to decide complaints and pass any order. To decide complaints the Authority shall be deemed to be Civil Court and shall have the same powers as are vested in the Civil Court."[3086] However, due to government and especially military interference and undue pressure on the existing judiciary, concerns arise about the potential lack of independence of this authority, once it does come into existence. As of March 2023,

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equirements.&text=There%20is%20currently%20no%20law,of%20a%20Data%20Protection%20Officer

[3083] Ministry of Information Technology & Telecommunications, *Personal Data Protection Bill 2021 Consultation Draft: V.25.08.2021,* https://moitt.gov.pk/Detail/YjVmNzU0MWMtYzBkMC00Yjg5LTk1ODktOTJiODYzZTY5ZWRk

[3084] See cl. 28(b) of the PDPB, Lexology, *Q&A: the data protection legal framework in Pakistan* (Jul. 27, 2022), https://www.lexology.com/library/detail.aspx?g=1e15030c-1c17-4801-bc7f-d4b9e5210789

[3085] Ministry of Information Technology & Telecommunications. *Personal Data Protection Bill 2021 Consultation Draft: V.25.08.2021*, https://moitt.gov.pk/Detail/YjVmNzU0MWMtYzBkMC00Yjg5LTk1ODktOTJiODYzZTY5ZWRk

[3086] *Q&A: the data protection legal framework in Pakistan,* https://www.lexology.com/library/detail.aspx?g=ff3aaac5-35d1-4fa3-b7f9-d3164ba6a7ac

however, this national Commission has not been formed. There is also no indication, as a matter of public record, as to when and whether it will come into existence in the Official Gazette of Pakistan.[3087]

In February 2022, the Federal Cabinet also approved the Cloud First Policy and the Social Media Rules. The Cloud First Policy provides a governance instrument towards cloud infrastructure and internal and cross-border data flows.[3088] Its purpose is to facilitate cloud adoption and to ease the provision of public services. The Policy references the need for cloud service providers to safeguard data privacy though this is not explicitly listed as one of its twelve objectives.[3089] Instead, the Policy states the following: "CSP (cloud service providers) implement technical and administrative controls to protect data – both stored and in transit. Furthermore, formal engagements with CSP generally define data protection standards and establish SLA (service level agreements) that outline security and privacy measures. These measures including but not limited to adequate technical controls, such as end-to-end encryption or tokenization as well as data loss prevention tools." The policy also provides data classification guidelines for public sector data, ranging from 'open', 'public', 'restricted', 'sensitive/confidential' to 'secret'. It defines 'sensitive/confidential' data as the following: "Information not intended to be published, which shall be accessed only by certain people having proper authorization and which justifies moderate protective measures.

▪ Phone numbers, registration numbers (BVN, vehicle, etc.), passport, etc.

▪ Information that contains at least one personally identifiable information (PII) like name (first and last), address, biometrics, etc.

▪ Data classified as "confidential" and, perhaps, certain categories of "secret" data (e.g. Obsolete or archived "secret" information).

[3087] Ministry of Information Technology & Telecommunication, Government of Pakistan: official website, https://moitt.gov.pk/Detail/YjVmNzU0MWMtYzBkMC00Yjg5LTk1ODktOTJiODYzZTY5ZWRk

[3088] Kalbe Ali, _Federal Cabinet approves Cloud First Policy, Personal Data Protection Bill_, Dawn (Feb. 16, 2022), https://www.dawn.com/news/1675330

[3089] Data Guidance, _Pakistan: MOITT introduces Cloud First Policy_ (Feb. 25, 2022), https://www.dataguidance.com/news/pakistan-moitt-introduces-cloud-first-policy; Ministry of Information Technology & Telecommunication, _Pakistan Cloud First Policy_ (Feb. 2022). https://moitt.gov.pk/SiteImage/Misc/files/Pakistan%20Cloud%20First%20Policy-Final-25-02-2022.pdf

▪ Information accessible through Intranet only, but available to broadly defined categories of authorized officials and public servants. Drafts of laws and regulations that are not yet in the public domain."

The policy further states that "Information on data security guidelines and compliance with national legislation and international standards on data privacy and cybersecurity…will be considered when procuring cloud services."[3090]

Article 14 of Pakistan's 1973 Constitution protects the right to privacy in the home. This right has been interpreted to extend to digital communications as well. However, more recent laws allow for this right, and its extension to digital communications to be circumvented and called into question. The 2016 Prevention of Electronic Crimes Act (PECA) includes various data protection- and privacy-related provisions to reduce cyber blackmailing, defamation, and bringing disrepute to natural persons with the use of photoshopped images. Violations of these provisions carry monetary penalties and/or imprisonment of up to 5 years.

Concerns arise with regard to the PECA provisions which grant government agencies access to citizen's private data and restrict citizens' from accessing their government data. Section 31 of the PECA allows an authorized agent to require a person to hand over data without producing a court warrant if reasonably required for a criminal investigation. The PECA also encroaches on privacy rights as certain provisions are intended to grant the Pakistan Telecommunications Authority (PTA) and other law enforcement agencies access to the private data of citizens, along with restricting citizens from gaining access to government data. Section 32 of the PECA requires internet service providers to retain specified traffic data for a minimum of one year and subject to the PTA's demands outlined in Section 31. Section 42 outlined that powers are delegated to the government when it comes to sharing information with foreign entities. [3091]

In February 18, 2022, PECA's Ordinance (a series of proposed amendments) passed[3092]. One of the passed amendments seek to make the online defamation of authorities, including the military and judiciary, a

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[3090] Ministry of Information Technology & Telecommunication, *Pakistan Cloud First Policy* (Feb. 2022), https://moitt.gov.pk/SiteImage/Misc/files/Pakistan%20Cloud%20First%20Policy-Final-25-02-2022.pdf

[3091] Farieha Aziz. *Pakistan's cybercrime law: boon or bane?* Heinrich Boll Stiftung (Feb. 14, 2022), https://www.boell.de/en/2018/02/07/pakistans-cybercrime-law-boon-or-bane

[3092] https://www.radio.gov.pk/21-02-2022/peca-amendment-bill-elections-act-amendment-ordinance-in-favour-of-all-shibli

criminal offense with harsh penalties. Both Human Rights Watch[3093] and Amnesty International[3094] termed it as the latest in a concerted campaign to restrict freedom of expression and stifle dissent. While the PECA already contained broad provisions around the criminalization of the defamation of natural persons, the amendment expanded those provisions to include the government, military, and judiciary redefining what a "person" is considered. Other passed amendments include making defamation a nonbailable offense and increasing its prison term to five years, expanding the definition of those who can initiate criminal proceedings for defamation, among other passed amendments. The amendment made no mention of AI or its use in online or other forms of disinformation.

On February 23, 2022, the Islamabad High Court restrained the Federal Investigation Agency (FIA) - the primary investigative body for PECA - from making any arrests under the newly passed Ordinance.[3095] Alongside this investigative restraint, the major opposition parties moved resolutions in the National Assembly to repeal the Ordinance[3096] and the National Commission for Human Rights (NCHR) issued a statement[3097] demanding the Ordinance's immediate repeal, expressing serious reservations on the promulgation of the Ordinance, stating it breached the right to freedom of speech and expression enshrined under Article 19 of the Constitution of Pakistan[3098] and protected under various international agreements to which Pakistan is a signatory, and violates the democratic process. In April 2022, PECA's Ordinance was struck down by the

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[3093] https://www.hrw.org/news/2022/02/28/pakistan-repeal-amendment-draconian-cyber-law

[3094] Amnesty.org, *Pakistan: Repeal amendment to draconian cyber law* (Feb. 28, 2022), https://www.amnesty.org/en/latest/news/2022/02/pakistan-repeal-draconian-cyber-crime-law/

[3095] Amnesty.org, *Pakistan: Repeal amendment to draconian cyber law* (Feb. 28, 2022), https://www.amnesty.org/en/latest/news/2022/02/pakistan-repeal-draconian-cyber-crime-law/

[3096] The Express Tribune, *Major parties move NA for PECA ordinance repeal* (Mar. 3, 2022), https://tribune.com.pk/story/2346215/major-parties-move-na-for-peca-ordinance-repeal

[3097] https://www.nchr.gov.pk/press_release/statement-against-the-prevention-of-electronic-crimes-amendment-ordinance-2022/#:~:text=Saturday%2C%20February%2026%2C%202022%3A,a%20right%20enshrined%20within%20Article

[3098] https://na.gov.pk/uploads/documents/1333523681_951.pdf

Islamabad High Court,[3099] a verdict lauded by the media[3100] and human rights organizations[3101], as by doing so the Court upheld Pakistan's constitutional right to freedom of speech.

The Social Media Rules were adopted in October 2020.[3102] The spirit of these rules bears proximity to the 2016 Prevention of Electronic Crimes Act's (PECA) Section 20 on the defamation of public institutions.[3103] The rules compel social media companies to establish offices within the country, localizing their database servers. They specify a new position of 'National Coordinator' to liaise with these companies and seem to indicate the aspiration of greater control over Pakistani users. AI was not featured in these rules explicitly, though online disinformation was. They were updated and released again a year later[3104]. As a result, Twitter came under intense state scrutiny when the government at the time was subject to vitriol from an unhappy public, which led to the PECA Amendment Ordinance 2022, referenced above.[3105]

Algorithmic Transparency

Algorithmic transparency is not yet established as a legal right in Pakistan. The Personal Data Protection Bill (PDPB) provides for the "right not to be subject to a decision based solely on automated processing, including profiling"[3106] without any further details. The definition of processing in the bill is as follows: "any operation or set of operations which is performed on personal data or on sets of personal data, whether or not by automated means, such as collection, recording, organization, structuring,

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[3099] https://www.ifj.org/media-centre/news/detail/category/press-releases/article/pakistan-peca-ordinance-overruled-by-islamabad-high-court.html

[3100] https://www.ifj.org/media-centre/news/detail/category/press-releases/article/pakistan-peca-ordinance-overruled-by-islamabad-high-court.html

[3101] Myra Imran. *NCHR welcomes govt's decision to agree with demands of repealing PECA Ordinance*, The News (Mar. 05, 2022), https://www.thenews.com.pk/print/938718-nchr-welcomes-govt-s-decision-to-agree-with-demands-of-repealing-peca-ordinance

[3102] https://moitt.gov.pk/SiteImage/Misc/files/Social%20Media%20Rules.pdf

[3103] Arshad Khan Eesha, *The Prevention of Electronic Crimes Act 2016 : An Analysis*, LUMS Law Journal, https://sahsol.lums.edu.pk/law-journal/prevention-electronic-crimes-act-2016-analysis

[3104] https://moitt.gov.pk/SiteImage/Misc/files/Social%20Media%20Rules.pdf

[3105] https://www.ibanet.org/Pakistan-tightens-restrictions-on-social-media-giants#_ednref6

[3106] See Article 2 of the PDPB, Ministry of Information Technology & Telecommunications, *Personal Data Protection Bill 2021 Consultation Draft: V.25.08.2021*, https://moitt.gov.pk/Detail/YjVmNzU0MWMtYzBkMC00Yjg5LTk1ODktOTJiODYzZTY5ZWRk

storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure or destruction". Anonymized data is defined as "information which does not relate to an identified or identifiable natural person or to personal data rendered anonymous in such a manner that the data subject is not or no longer identifiable." Furthermore, the Bill defines vital interests as "matters relating to life, fundamental rights, security of a data subject(s), humanitarian emergencies, in particular in situations of natural and man-made disasters, monitoring and management of epidemics."[3107]

Smart Surveillance

Two Acts contain concerning provisions with regard to surveillance in Pakistan. The 1996 Act providing for the reorganization of the Pakistan Telecommunications Authority PTA permits the Government of Pakistan to authorize any person(s) to intercept calls and messages, or to trace calls through any telecommunication system in the interest of national security or in the apprehension of any offense.[3108] Under the 2013 Investigation for Fair Trial Act, a judge has the power to issue a warrant of surveillance or interception, upon the fulfillment of certain conditions.[3109]

Aside from statutory provisions, some Pakistani software exhibits surveillance state aspects. "Hotel Eye" is a software that combines surveillance technologies and government databases to track various hotels and their customers. The software also collects citizens' data without their consent. Hotel Eye is now mandatory for hotel and private rest house operators throughout Pakistan[3110]. Various provinces in Pakistan including Punjab, Balochistan[3111] and Gilgit-Baltistan have reported on the

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[3107] See Article 28 of the PDPB, Ministry of Information Technology & Telecommunications, *Personal Data Protection Bill 2021 Consultation Draft: V.25.08.2021*, https://moitt.gov.pk/Detail/YjVmNzU0MWMtYzBkMC00Yjg5LTk1ODktOTJiODYzZTY5ZWRk

[3108] See Section 54 of *The Pakistan Telecommunication (Re-organization) Act*, The Gazette of Pakistan (1996), https://na.gov.pk/uploads/documents/1329727963_180.pdf

[3109] See Section 11 of *The Investigation for Fair Trial Act*, The Gazette of Pakistan (2013), https://na.gov.pk/uploads/documents/1361943916_947.pdf

[3110] Pubjab Information Technology Board website, *HotelEye* (accessed March 22, 2023) https://pitb.gov.pk/hotel_eye

[3111] United Nations Office on Drugs and Crime website *Road to Digitization: UNODC concludes Training on Specialized Software for Balochistan Police* (March 15, 2023), https://www.unodc.org/pakistan/en/stories/road-to-digitization_-unodc-concludes-training-on-specialized-software-for-balochistan-police.html

deployment of HotelEye for purposes of crime prevention, lauding its efficacy in helping trace, track and surveil suspected criminals[3112]. This gives rise to concerns regarding surveillance of private citizens, in particular with regard to gender interactions and in view of discriminatory laws against women still in effect in the country.[3113]

In the case of the Balochistan province, technical, operational and training support on the use of Hotel Eye (among other specialized softwares) was provided very recently by the United Nations Office on Drugs and Crime[3114] under the European Union-funded Rule of Law Roadmap (RoLR) Balochistan project.[3115]

The Government of Pakistan deployed several tech-related measures during COVID-19 that threaten the right to privacy, such as a track-and-trace system originally developed to track-and-trace possible terrorist activities. The system is opaque and lacks judicial oversight and reportedly combines personal call-monitoring mechanisms and geofence tracking to identify when a person leaves a given geographic location.[3116]

Practices of surveillance in public space and use of facial recognition are of concern. A report by Privacy International identified such practices in Pakistan during the COVID-19 pandemic.[3117] Privacy International found that the government of Pakistan retrofitted systems, originally designed for counter-terrorism purposes by the Inter-

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[3112] Gilgit-Baltistan Police website, *Hotel Eye*: "When a domestic or foreign tourist stays in a hotel, his ID card data and his personal details are stored in Hotel Eye's application. This system is integrated with NADRA, PSRMS and CRO. Police action can be taken by fully monitoring the proclaimed offenders, wanted accused and persons included in the Fourth Schedule." https://gbp.gov.pk/hotel-eye/

[3113] Pakistan Qanun-e-Shahadat Ordinance 1984, Section 151 (4): "when a man is prosecuted for rape or an attempt to ravish, it may be shown that the prosecutrix was of generally immoral character," p.66 https://punjabpolice.gov.pk/system/files/qanun-e-shahadat-order-1984.pdf

[3114] United Nations Office on Drugs and Crime website, *Road to Digitization: UNODC concludes Training on Specialized Software for Balochistan Police* (March 15, 2023) https://www.unodc.org/pakistan/en/stories/road-to-digitization_-unodc-concludes-training-on-specialized-software-for-balochistan-police.html

[3115] United Nations Office on Drugs and Crime website, *6th Provincial Steering Committee reinforces a new Rule of Law Roadmap for Balochistan,* Press Release (Feb 28, 2023), https://www.unodc.org/pakistan/en/6th-provincial-steering-committee-reinforces-a-new-rule-of-law-roadmap-for-balochistan.html

[3116] Freedom House, *Freedom on the Net 2021 Report*, https://freedomhouse.org/country/pakistan/freedom-net/2021

[3117] Privacy International, *Under Surveillance: (Mis)use of Technologies in Emergency Reponses. Global lessons from the COVID-19 pandemic* (Dec. 2022), https://privacyinternational.org/report/5003/under-surveillance-misuse-technologies-emergency-responses-global-lessons-covid-19

Services Intelligence directorate, for COVID-19 surveillance. The absence of explanation of how the system operates, raised grave concerns among digital rights privacy activists, about tracking and tracing, monitoring and tracking suspected patients through VPN[3118].

One of China's Belt and Road Initiative's flagship project is the $63 billion USD China-Pakistan Economic Corridor. China is supporting numerous Safe City projects to allegedly improve security within Pakistan's major urban centers by providing low interest rate loans and urging the involvement of Chinese state-owned enterprises. Safe City projects have effectively installed much of the Xinjiang digital security system across numerous Pakistani cities, including Islamabad, Peshawar, Lahore, Quetta, Karachi, and Gwadar. An example is Lahore's Huawei-built Safe City which uses approximately 8000 high-grade CCTV cameras, 4G wireless connectivity, facial recognition, automated vehicle number plate recognition, multiple tracking options, integrated communication platforms, geographic information systems, and specialized apps for security personnel use. These systems are controlled through a large 10,000-square-meter integrated command, control, and communication center that uses AI, big data, and cloud computing technology.[3119]

By January 2023, the National Database Registration Authority (NADRA), a government body reporting directly to the Ministry of Interior Affairs and responsible for all identification documents, shared data and images of 4,000 wanted people to a Safe City Islamabad for biometric matching, to lead to their arrest.[3120] According to the report, Safe City Islamabad placed a request to NADRA in October 2021 for data on people suspected for serious crimes, including a category of "proclaimed offenders" (referring to individuals who avoided court warrants). By mid-January, Safe City Islamabad announced the arrest of three people and 887 alerts through the use of facial recognition across the 106 cameras installed

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[3118] Zuha Siddiqi, *Pakistan is using a Terrorism Surveillance System to Monitor the Pandemic. Future Tense* (July 15, 2020), https://slate.com/technology/2020/07/pakistan-isi-terrorism-surveillance-coronavirus.html

[3119] Peter Layton, *Belt and Road means big data and facial recognition, too*, The interpreter (Jun. 19, 2020), https://www.lowyinstitute.org/the-interpreter/belt-and-road-means-big-data-facial-recognition-too

[3120] Chris Burt, *Pakistan ID authority shares data of 4K wanted people for biometric matching,* Biometric Update, (Jan. 11, 2023); Chris Burt. *Biometric Registrations open for vehicles and guns in Pakistan,* Biometric Update, (Jan. 18, 2023), https://www.biometricupdate.com/202301/biometric-registrations-open-for-vehicles-and-guns-in-pakistan

in the capital city.[3121] The Safe City Islamabad project continues to be featured in the country's annual budgetary appropriations for its Public Sector Development Program 2022-2023.[3122]

In January 2023, the NADRA announced the use of an AI-based solution to verify fingerprints/records of senior citizens.[3123] The solution aims to supplement the physical, biometric verification of fingerprints[3124]. This project, approved by the Planning Commission of Pakistan in 2018[3125] and allocated funding in the Public Sector Development Program 2020-2021,[3126] is being developed under the supervision of the National Center of AI at the National University of Science & Technology.[3127]

EdTech and Children Tracking

Pakistan is one of 49 countries subject of a 2022 study by Human Rights Watch about the use of government-endorsed Ed Tech tools for online learning during the COVID-19 pandemic.[3128] Based on technical and policy analysis of 163 EdTech products, Human Rights Watch found that governments' endorsements of the majority of these online learning platforms put at risk or directly violated children's rights.

Some EdTech products targeted children with behavioral advertising. Many more EdTech products sent children's data to AdTech companies that specialize in behavioral advertising or whose algorithms determine what children see online, such as the Muse App developed for K-5 students in Pakistan. As of April 2020, over 120,000 students in Pakistan

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[3121] Chris Burt, *Biometric Registrations open for vehicles and guns in Pakistan,* Biometric Update (Jan. 18, 2023), https://www.biometricupdate.com/202301/biometric-registrations-open-for-vehicles-and-guns-in-pakistan

[3122] https://www.pc.gov.pk/uploads/archives/PSDP_2022-23_Final.pdf

[3123] Business Recorder, *Verifying fingerprints of senior citizens: Nadra introduces AI-based solution* (Jan. 13, 2023), https://www.brecorder.com/news/40219926/verifying-fingerprints-of-senior-citizens-nadra-introduces-ai-based-solution

[3124] Chris Burt, *Pakistan Telecom Authority and NADRA to work together on multi-finger biometrics*, Biometric Update (Mar 7, 2023) https://www.biometricupdate.com/202303/pakistan-telecom-authority-and-nadra-to-work-together-on-multi-finger-biometrics

[3125] Government Of Pakistan Planning Commission PC-1 Form (Social Sectors): National Center of Artificial Intelligence.

[3126] Public Sector Development Programme 2020-21, Planning Commission, Ministry Of Planning, Development & Special Initiatives June 2020, https://na.gov.pk/uploads/1591967333_830.pdf

[3127] Interview with Dr. Yasar Ayaz conducted March 14, 2023 by Manail Anis & Matthew Ogbeifun, video recording available with the authors.

[3128] Human Rights Watch. *How Dare They Peep into My Private Life?* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

used Muse across 1,000 schools, with plans in motion to expand the reach to all primary school students. The government of Pakistan endorsed Apps with the capability to collect AAID (Android Advertising ID) and identify, tag and track billions of users, including children (Muse App, Taleemabad App), collected the WiFi MAC address of children (Muse App), collected aggregate IMEI numbers (International Mobile Equipment Identity numbers that are used to trace mobile devices) (Taleemabad App), engaged in ID bridging (to bypass privacy controls) (Muse and Taleemabad) and collected WI-Fi SSID which can be used to infer information about a child habits and relationships (Taleemabad). Other websites and Apps shared their users' data to Facebook Pixel, which could track every moment of a kid across their platforms (Khan Academy, Learn Smart Pakistan, Sabaq Foundation).[3129]

According to Human Rights Watch, in line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop, refine, and enforce modern child data protection laws and standards, and ensure that children who want to learn are not compelled to give up their other rights in order to do so.[3130]

Use of AI by Courts

An academic study reports the planned use of artificial intelligence to aid judicial decision-making [3131]. Plans to establish this project by the Deep Learning Lab of the National Centers for AI for this purpose were

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[3129] Human Rights Watch, *How Dare They Peep into My Private Life?* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[3130] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[3131] Uzma Nazir Chaudhry, *Algorithmic Decision-making in Pakistan,* https://cfhr.com.pk/wp-content/uploads/2022/04/Algorithmic-Decision-Making-in-Pakistan.pdf

reported on in 2020.[3132] However, no further detail is available about this project.[3133]

Lethal Autonomous Weapons

Pakistan was one of the first nations to call for a ban on lethal autonomous weapons systems. Since 2013, Pakistan and 30 other countries have called for a ban on fully autonomous weapon systems, which will prohibit weapons systems that lack human control.[3134] The Human Rights Council of Pakistan argued that lethal autonomous weapons systems raise complex moral, ethical, and legal dilemmas. Pakistan delivered a statement on behalf of the Organization of the Islamic Conference, representing more than 50 states, alerting about the negative impact of removing human control from the use of force, as this "fundamentally changes the nature of war" and raises the potential for an "accountability gap."[3135] Pakistan has presented multiple calls for a new international ban treaty of LAWS and denounced them as "illegal, unethical, inhumane, and unaccountable as well as destabilizing for international peace and security."[3136]

Despite its active participation in every meeting of the Convention on Certain Conventional Weapons from 2014-2019,[3137] Pakistan has not acceded to the Convention.

Human Rights

Freedom House's 2022 annual report rates Pakistan as "Partly Free" (37 out of 100). The report points out that, despite the competitive multiparty political system in the country, Pakistan's military exerts substantial influence over security and other policy issues, intimidation of

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[3132] Announcement video uploaded to the National Center of Artificial Intelligence – Pakistan facebook page on Feb. 18, 2023, https://www.facebook.com/ncai.pk/posts/674605906623523/?paipv=0&eav=AfZNCXsz VIDHOdy6FdhC4vpD16RhvqTjhW8vlO3wY5DtavQoPD_904pjc-oc7KIu0PY&_rdr

[3133] Interview with Dr. Yasar Ayaz conducted March 14, 2023 by Manail Anis & Matthew Ogbeifun, video recording available with the authors

[3134] Human Rights Watch, *Stopping Killer Robots. Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control* (Aug. 10, 2020), https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and

[3135] Ibid.

[3136] Ibid.

[3137] Human Rights Watch, *Stopping Killer Robots: Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control* (Aug. 10, 2020), https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and

media outlets, and use of indiscriminate or extralegal use of force to manage religious militancy and attacks on religious minorities and opponents.[3138]

Pakistan is rated "Not Free" in Freedom House's 2022 report on global internet freedom. Pakistan frequently blocks content critical of Islam, the military, pornography or nudity websites, and other political and social content. There are also allegations that the Pakistani government uses censorship equipment to block and regulate its citizens' internet access.[3139] In addition, the report claims: "People are frequently prosecuted for their online activities, often receiving harsh sentences. The death penalty was imposed in a case of online blasphemy during the coverage period, and previous cases in which the death penalty was imposed are under appeal."

Pakistan is signatory of several human rights conventions.[3140] Pakistan is one of the original signatories of the Universal Declaration of Human Rights and signed the International Covenant on Civil and Political Rights (ICCPR) in 2008, which also upholds the right to privacy. In 1989, Pakistan adopted the Convention on the Rights of the Child, which include the right to privacy. In 1990, Pakistan signed the Cairo Declaration on Human Rights in Islam.[3141] In 2004, the country signed the International Covenant on Economic, Social and Cultural Rights (ICESR).[3142].

The UN Office of the High Commissioner for Human Rights, in its 2022 Universal Periodic Review of Pakistan,[3143] highlighted the commitment of the country to the promotion and protection of human rights. Pakistan submitted to the OHCHR statements to committees on racial discrimination, human rights, rights of the Child, and committees against

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[3138] Freedom House, *Freedom in the World 2022 Pakistan Country Report,* https://freedomhouse.org/country/pakistan/freedom-world/2022

[3139] Freedom House, *Freedom on the Net 2022 Pakistan Country Report,* https://freedomhouse.org/country/pakistan/freedom-net/2022

[3140] Ministry of Human Rights, *Information and Learning Material on Core Human Rights Conventions Ratified by Pakistan* (2022), https://mohr.gov.pk/SiteImage/Misc/files/Information%20and%20Learning%20Material%20on%20Core%20Human%20Rights%20Convention.pdf

[3141] Privacy International, *The Right to Privacy in the Islamic Republic of* Pakistan, Stakeholder Report, Universal Periodic Review, 28th Session – Pakistan, https://privacyinternational.org/sites/default/files/2017-11/UPR28_Pakistan.pdf

[3142] The Office of the United Nations High Commissioner for Human Rights (OHCHR), *United Nations Human Rights Treaty Bodies, UN Treaty Body Database*, https://tbinternet.ohchr.org/_layouts/15/TreatyBodyExternal/Treaty.aspx?CountryID=131&Lang=EN

[3143] OHCHR. *Universal Periodic Review Working Group to commence fourth cycle with holding of its forty-first session from 7 to 18 November 2022* (Nov. 2, 2022), https://www.ohchr.org/en/press-releases/2022/11/universal-periodic-review-working-group-commence-fourth-cycle-holding-its

torture. The OHCHR issued 18 recommendations for the Government of Pakistan, concluding on the need to take administrative and legislative measures to improve the state of human rights in the country, to be integrated systematically in national implementation and monitoring plans.[3144]

OECD / G20 AI Principles

Pakistan is not a member of the OECD,[3145] and has not endorsed the OECD AI principles as a non-member.[3146] Pakistan does not submit reports to the OECD AI Policy Observatory in relation to policies, strategies or activities associated with AI.[3147]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Pakistan is a UNESCO member since 1949 and therefore one of the 193 countries that endorsed the UNESCO Recommendation on the Ethics of AI.[3148] Pakistan was part of the Member States providing input on the first Draft of the Recommendation.[3149] There is no evidence yet of measures (to be) adopted for the implementation of the Recommendation.

Evaluation

Pakistan is still in the early days of taking concrete measures to regulate AI. The country has announced the introduction of a national AI policy which has still to be formulated. Pakistan's endorsement of the 2021 UNESCO Recommendation on the Ethics of AI and the 2022 Riyadh AI Call for Action Declaration on ethics of AI gives the country an opportunity to adopt a human-centered approach to AI in its future national strategy. The drafting of a Personal Data Protection Bill is also a positive step towards protecting data subjects' rights, although the right to algorithmic transparency is not provided for. The future establishment of a national data

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[3144] OHCHR, *United Nations Human Rights. Office of the High Commissioner- Universal Periodic Review Pakistan* (Nov. 10, 2022), https://documents-dds-ny.un.org/doc/UNDOC/GEN/G22/581/81/PDF/G2258181.pdf?OpenElement

[3145] OECD, *Our global reach. Member Countries* (2023), https://www.oecd.org/about/

[3146] OECD, *Forty-two countries adopt new OECD Principles on Artificial intelligence* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[3147] OECD.AI, *Country Dashboards and Data* (2023). https://oecd.ai/en/

[3148] UNESCO, *UNESCO Member States Adopt the First Ever Global Agreement on the Ethics of Artificial Intelligence* (Apr. 21, 2022), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence

[3149] UNESCO. *Compilation of Comments Received from Member States on the first Draft of the Recommendation* (2021), https://unesdoc.unesco.org/ark:/48223/pf0000376747

protection authority, although its status is still uncertain, is a positive sign and might help address in part some of the issues related to the use of AI systems for surveillance purposes. However, the widespread use of AI technology for surveillance purposes, coupled with political instability and endemic problems of discrimination against women, minorities and disadvantaged groups, are serious causes for concern. With the country benefitting from burgeoning and tech-savvy young, predominantly urban and rapidly-urbanizing population, strengthening civic participation, promoting democratic values, facilitating the development of literacy (including digital literacy) and enabling digital access could go a long way in fostering the adoption of ethical, trustworthy and humane AI and digital policies.

Peru

National AI Strategy

      In 2021, the Government and the Digital Transformation Secretariat of the Presidency of the Council of Ministers, issued Peru's draft National Artificial Intelligence Strategy (ENIA) for the period of 2021-2026. As a leader in research, development and deployment of AI in Latin America, Peru's vision is to accelerate national development while promoting digital inclusion and ensuring the reduction of social gaps. ENIA aims to foster the necessary conditions to take advantage of the opportunities presented by developments in AI, and create value for the private and public sector, while mitigating potential risks.[3150] However, after the consultation period ended in June 2021, Peru's efforts to establish and implement a formal National Strategy have stalled.

    The key objectives of ENIA are:

(1) Training and Talent Attraction: To enhance Peru's human talent in the research and development of AI, with focus on reducing the gap of participation of women and minorities and enhance the country's capacity as a leader in AI in key sectors of the country.

(2) Economic Model: Promote the development of AI and its adoption as a tool to boost the country's development and welfare, including to minimize the effect of job displacement due to adoption of AI.

(3) Technological Infrastructure: Facilitate the creation and strengthening of digital and telecommunications infrastructure to support the development of AI.

(4) Data: Facilitate the development of a data infrastructure to make high quality public data available in an open, reusable, and accessible format.

(5) Ethics: Adopt ethical guidelines for sustainable, transparent, and replicable use of AI with clear definitions of responsibilities and data protection. As a signatory of the OECD AI Principles, Peru aims to adapt these recommendations to fit the country's realities and prioritize research and development that stimulates the innovation of a reliable and accessible AI. Additionally, Peru aims to create a unit to monitor and promote the responsible and ethical use of AI, create an observatory to monitor and report on rankings indicators for the responsible use of AI such as the Oxford Insight

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[3150] First Draft of Peru's National Artificial Intelligence Strategy (2021), https://cdn.www.gob.pe/uploads/document/file/1909267/National%20Artificial%20Intelligence%20Strategy%20-%20Peru.pdf

Responsible AI ranking, and implement a registry platform for AI algorithms to be used in the public sector.

(6) Collaboration: Facilitate a collaborative AI ecosystem at the national and international level. Through a National Center for Innovation and AI, Peru seeks to promote collaboration in training, research, development, and innovation of AI between the public and private sectors, academic and alliances with prestigious foreign institutions.[3151]

Public Participation

In 2020, The Digital Government Secretariat of the Presidency of the Council of Ministers requested consultation from the public and private sectors, civil society, academia, and citizens to participate in the co-design of the National AI Strategy with the purpose of driving the digital transformation of the country for the benefit of all people. Registration was open to all, and consultation took place from August 5 to August 12, 2020 via Zoom.[3152] In 2021, the government presented a draft of the National Strategy and requested additional consultation from the public. No further public participation has been requested after the collection and analysis of the contributions in June 2021. [3153]

The Peruvian Government and Digital Transformation Lab launched the platform "Participate Peru", to obtain suggestions and comments from citizens regarding current and potential regulations. Citizens can also send policy proposals on issues that interest them, and make complaints regarding corruption in the public sector. To report the latter, citizens must provide an email address, where they will receive a report number, which they can then use to inform themselves about the status of their complaint.[3154]

[3151] First Draft of Peru's National Artificial Intelligence Strategy (2021), https://cdn.www.gob.pe/uploads/document/file/1909267/National%20Artificial%20Intelligence%20Strategy%20-%20Peru.pdf

[3152] Gov.Pe, *Co-Design Strategies for National Digital Transformation Policy and Strategy* (March 12, 2023), https://www.gob.pe/10522-estrategias-de-co-diseno-para-la-politica-y-estrategia-nacional-de-transformacion-digital

[3153] Gob.Pe, *Participating in the National Artificial Intelligence Strategy* (March 12, 2023), https://www.gob.pe/13517-participar-de-la-estrategia-nacional-de-inteligencia-artificial

[3154] Gob.Pe, *Participa Peru*, https://www.gob.pe/participa

Data Protection

　　The Personal Data Protection Law, passed in 2011, guarantees the fundamental right to personal data protection provided in Article 2, paragraph 6 of the Peruvian Constitution.[3155] The law was amended in 2017 to provide Peruvians with an updated level of data protection.[3156] The law covers personal data, automated or not, regardless of the medium, regardless of the form or modality of their creation, formation, storage, organization and access.[3157] The law has established various principles that data controllers and processors who process the personal data of Peruvian citizens must comply with when processing personal data.[3158] These principles include the following:

- Legality– All collection and processing of personal data must be carried out in accordance with the Protection of Personal Data. The collection or processing of personal data that is conducted via unfair, unlawful, or illegal means is strictly prohibited.
- Purpose– The collection and processing of personal data must be done for purposes that are explicit, specific, and legitimate. "The processing of personal data should not be extended to other purposes than those established at the time of collection, except in cases of historical, statistical or scientific activities, where dissociation or anonymization processes are applied".
- Proportionality– The collection and processing of personal data must be done in a manner that is relevant, adequate, and non-excessive with respect to the purposes for which it was collected.
- Quality– Personal data must be collected and processed in a manner consistent with the principles of truthfulness and accuracy. Personal data must also be updated, when possible, as well as kept appropriate and

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[3155] Hunton Privacy Blog, *Law for Personal Data Protection* (June 9, 2010), https://www.huntonprivacyblog.com/wp-content/uploads/sites/28/migrated/Peru%20Data%20Protection%20Law%20July%2028_EN%20_2_.pdf

[3156] Caseguard.com, *New Found Privacy Regulations for Peruvian Citizens* (Nov. 10. 2021), https://caseguard.com/articles/new-found-privacy-regulations-for-peruvian-citizens/

[3157] Hunton Privacy Blog, *Law for Personal Data Protection* (June 9, 2010), https://www.huntonprivacyblog.com/wp-content/uploads/sites/28/migrated/Peru%20Data%20Protection%20Law%20July%2028_EN%20_2_.pdf

[3158] Hunton Privacy Blog, *Law for Personal Data Protection* (June 9, 2010), https://www.huntonprivacyblog.com/wp-content/uploads/sites/28/migrated/Peru%20Data%20Protection%20Law%20July%2028_EN%20_2_.pdf

relevant in relation to the purposes for which said personal data was collected and processed.

- Security– Data controllers and processors are responsible for implementing technical, physical, and organizational measures for the purposes of protecting personal data.
- An adequate level of protection– In terms of cross-border transfers of personal data, the person who is responsible for the processing of said personal data must ensure that the data is protected sufficiently. This level of protection must be comparable or on par with either the law or international standards.

In 2011, The National Personal Data Protection Authority (ANPD) was established within the Ministry of Justice to enforce and impose sanctions for violations of the law. Sanctions include administrative and monetary penalties against parties who are found to have violated the provisions of the law.[3159] The ANPD hears, investigates, and resolves complaints lodged by the data subjects for the violation of the rights granted to them and issues provisional and/or corrective measures, as established in the regulation. The ANPD is also responsible for recommending any minor or major amendments to the data protection law to ensure it keeps up with both technological advancements and potential legal challenges. The ANPD established a National Register of Personal Data Protection, which keeps a public record of all the data processors and the type of data being collected on Peruvian residents. The ANPD is also required to publish a yearly report on the state of data protection within the country as well as recommendations for organizations on how to better adhere to the Peruvian legislation related to data protection.[3160] The Peruvian Data Protection Authority (DPA) has been a member of the Global Privacy Assembly since 2012 but has not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[3161] the 2020 GPA Resolution on AI

[3159] Dataguadiance.com, *Peru - Data Protection Overview* (July, 2022), https://www.dataguidance.com/notes/peru-data-protection-overview

[3160] Securiti, *Peru's Data Protection Law* (Apr. 26, 2022), https://securiti.ai/peru-data-protection-law/

[3161] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

Accountability,[3162] or the 2022 GPA Resolution on Facial Recognition Technology.[3163]

In August 2002, Peru adopted the Law of Transparency and Access to Public Information, which guarantees the right of every individual to request information in any medium, from any public authority, regardless of identity or motive.[3164] The National Authority for Transparency and Access to Information was established in 2017 to enforce and ensure compliance of the law.[3165]

In June 2021, Peru's Council of Ministers approved and presented to Congress a bill that creates the National Authority for Transparency, Access to Public Information and Protection of Personal Data (NDPA) which would incorporate the current authorities in the field, namely the National Personal Data Protection Authority and the National Authority for Transparency and Access to Information, as well as the administrative court of transparency.

Peru has also ratified the 1981 Council of Europe (Convention 108) for the protection of individuals with regard to the processing of personal data but not the 2018 Protocol modernizing the Convention.[3166]

Algorithmic Transparency

Peru's Data Protection Law does not contain a general right of algorithmic transparency and does not explicitly state the right to receive information about automated-decision systems or to object to a decision

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[3162] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[3163] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[3164] World Bank, *Law of Transparency and Access to Public Information* (Feb. 3, 2003), https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/documents/peru_rti_law_2002_english.pdf

[3165] Latamjournalismreview.org, *Experts criticize entity created by the Peruvian government to regulate access to public information in the country* (Jan. 17, 2017), https://latamjournalismreview.org/articles/experts-criticize-entity-created-by-the-peruvian-government-to-regulate-access-to-public-information-in-the-country/

[3166] Council of Europe, *Chart of signatures and ratifications of Treaty 223* (status as of March, 12, 2023), https://www.coe.int/en/web/conventions/full-list?module=signatures-by-treaty&treatynum=223

based solely on automatic data processing methods.[3167] However, Article 23 of the Law on the rights of the data subject states that the data subject has the right not to be subjected to a decision with legal effects on him or affecting him significantly, supported only by a processing of personal data intended to evaluate certain aspects of his personality, unless it occurs within the negotiation, execution or performance of a contract or in cases of evaluation with purposes of incorporation into a public entity, pursuant to the law, without prejudice to the possibility of defending his point of view for the protection of his legitimate interest. The data subject also has the right to obtain information processed about him in publicly or privately administered databases, the way his data were compiled, the reasons for their compiling and at whose request the compiling was done, as well as the transfers made or planned to be made of such data.[3168]

While Peru's draft National AI Strategy highlights the development of a registry of AI algorithms in the public sector, and datasets used in use cases under its strategic objective of ethics, it remains unclear if the registry would be open to the public.[3169]

Digitization of Peru's Public Sector

The National Strategy proposal highlights not only the value creation for the private sector, but also for the public sector which must meet the new demands of a digital citizenship.[3170] However, large economic groups have been the main driver of adoption of AI in Peru with fewer attempts made by the public sector.[3171] The Peruvian Public Sector AI Status Survey conducted in January 2021 revealed that only 39 out of 488 public institutions use AI. Common uses include prediction of criminal acts, facial recognition, risk management and virtual assistants with most of this use attributed to local governments.

[3167] ICLG.com, *Data Protection Laws and Regulations in Peru 2022-2023,* https://iclg.com/practice-areas/data-protection-laws-and-regulations/peru

[3168] Hunton Privacy Blog, *Law for Personal Data Protection* (June 9, 2010), https://www.huntonprivacyblog.com/wp-content/uploads/sites/28/migrated/Peru%20Data%20Protection%20Law%20July%2028_EN%20_2_.pdf

[3169] Gob.Pe, *First Draft of Peru's National Artificial Intelligence Strategy* (June 2021), https://cdn.www.gob.pe/uploads/document/file/1909267/National%20Artificial%20Intelligence%20Strategy%20-%20Peru.pdf

[3170] CDN, *First Draft of Peru's National Artificial Intelligence Strategy* (2021), https://cdn.www.gob.pe/uploads/document/file/1909267/National%20Artificial%20Intelligence%20Strategy%20-%20Peru.pdf

[3171] CDN, *First Draft of Peru's National Artificial Intelligence Strategy,* (2021), https://cdn.www.gob.pe/uploads/document/file/1909267/National%20Artificial%20Intelligence%20Strategy%20-%20Peru.pdf

Facial Recognition

Peru has deployed facial recognition technology across various sectors. On July 14, 2022, Peru's Victoria Municipality was sanctioned by the Personal Data Protection Authority (ANPD) for not complying with security measures in the use of surveillance cameras.[3172] The sanction followed an investigation instituted as a result of a complaint filed by civil society organizations Access Now and Hiperderecho in 2019 regarding the existence of facial recognition cameras in Victoria, which the organizations alleged were processing biometric data in contravention of Peru's Personal Data Protection Law. Although the investigation concluded that facial recognition software was not in use, and the cameras were only used to record and store images and videos to identify criminal activity reported to the National Police of Peru, the Authority sought to put corrective measures in place to address dangers that may arise in future because of the storing of personal data captured in the municipality's biometric system.[3173]

Additionally, the director of APDP administered a fine to the municipality for failing to add safeguards in place to secure the images captured and for failing to provide information on how the images would be stored, and which entities could access them. The resolution also found that the municipality's conduct fell short of provisions in the Personal Data Protection Law relating to verification and management procedures for personal information. The municipality had 55 days to put in place appropriate documentation concerning the management of privileges and periodic verification of those privileges for the processing of personal data carried out within the video surveillance system.[3174]

On October 5, 2020, the APDP announced that it had launched an investigation into the National University of San Marcos, following a complaint alleging that the personal data of applicants was inadequately processed, and biometric data was collected. In the event that facial recognition technology was used in the university's admissions process, ADPD would administer a fine in accordance with the Personal Data

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[3172] Power Singh Inc, *Peru: Municipality sanctioned for illegitimate use of personal data in video surveillance system* (July 28, 2022), https://powersingh.africa/2022/07/28/peru-municipality-sanctioned-video-surveillance/

[3173] Power Singh Inc, *Peru: Municipality sanctioned for illegitimate use of personal data in video surveillance system* (July 28, 2022), https://powersingh.africa/2022/07/28/peru-municipality-sanctioned-video-surveillance/

[3174] Power Singh Inc, *Peru: Municipality sanctioned for illegitimate use of personal data in video surveillance system* (July 28, 2022), https://powersingh.africa/2022/07/28/peru-municipality-sanctioned-video-surveillance/

Protection law.[3175] At the time of publishing, ADPD has yet to release a final report on this investigation.

Disinformation

In January, 2023, Peru signed together with 32 other countries of the Community of Latin American and Caribbean States (CELAC), the "Buenos Aires Declaration," through which they pledged to deepen integration, climate action, democratic institutions, and multilateralism.[3176] The signatories to the Declaration recognized disinformation and the visible increase in cyber-attacks, including those through artificial intelligence and the use of algorithms, as generating risks to the stability of the essential infrastructure of States and companies and to the well-being of individuals. Furthermore, the signatories agreed that disinformation on social networks can create parallel realities and induce political radicalization, creating a threat to democratic values and the rule of law, all leading to the need to expand cooperation and coordination among States to advance in the fight against disinformation and illegal content on the Internet.[3177]

The COVID-19 epidemic and the fake news "infodemic" that it created presented a real challenge for Peru as it was among the top 15 countries in the world in reported COVID-19 cases and second in Latin America, only after Brazil.[3178] The excessive and unfounded disinformation that spread on social media in Peru and other countries hindered an appropriate public health response. The American Journal of Tropical Medicine and Hygiene highlighted the Peruvian government's response to the spread of disinformation and stated that disinformation about COVID-19 that occurred at the beginning of the pandemic became almost non-existent after the Ministry of Justice and Human Rights (MJDH) of Peru announced on April 8, 2020 via Twitter that "persons who share fake news and misinform others to obtain a benefit or to perturb the public tranquility

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[3175] Data Guidance, *Peru: APDP investigates university for alleged inadequate processing of personal data and biometric data collection* (Oct. 6, 2020), https://www.dataguidance.com/news/peru-apdp-investigates-university-alleged-inadequate

[3176] Telesur.net, *CELAC's Buenos Aires Declaration Promotes LATAM Integration* (Jan. 25, 2023), www.telesurenglish.net/news/CELACs-Buenos-Aires-Declaration-Promotes-LATAM-Integration-20230125-0001.html

[3177] CELAC Summit, *Declaration of Buenos Aires* (Jan. 24, 2023), https://www.cancilleria.gob.ar/userfiles/prensa/declaracion_de_buenos_aires_-_version_final.pdf

[3178] The American Journal of Tropical Medicine and Hygiene, *The Peru Approach against the COVID-19 Infodemic: Insights and Strategies,* (May 20, 2020), https://www.ajtmh.org/view/journals/tpmd/103/2/article-p583.xml

can be sanctioned with a prison sentence". The Ministry urged people to share only official information, accompanied by the hashtag "Don't Spread #FakeNews." It further indicated that those who create and/or share false information to benefit themselves or cause perjury to others will receive a 2- to 4-year prison sentence, and if the fake news causes panic and perturbs the public tranquility, the sentence may be 3–6 years. Peru became the first country in Latin America to implement prison sentences for creating and disseminating fake news.

To evaluate the legitimacy of MJDH's statement, the organization Enfoque Derecho interviewed Peruvian lawyers. In conversation with César Landa, professor of Constitutional Law of the Catholic University of Peru and former President of the Constitutional Court, he concluded: "In this sense, in the context of COVID-19 pandemic, given that we are facing a situation of danger and threat, the dissemination of untruthful information is not a legitimate exercise of the right to freedom of expression or information. César Landa stated that such "news" seek to generate distress and disrupt public order. Thus, this type of information, which is practically inciting crime rather than protest, is obviously condemned by our constitutional legal system." [3179] This approach was widely applauded, as it appeared to result in a dramatic drop in fake news accounts.[3180]

Lethal Autonomous Weapons

At the 77th UN General Assembly First Committee meeting in October 2022, Peru joined 69 other countries to endorse a joint statement on autonomous weapons systems. Peru stated that "Progress in military technology towards increasing autonomy has led us to a scenario where machines have the power and discretion to put an end to human life. This is morally unacceptable, but still uncertain in legal terms. LAWS are of great concern to humanity; they call for a legal and political response, which is urgent, from the international community. For Peru there is no other way than establishing legally binding prohibitions. Regulation through a new treaty is the most effective way of dealing with the increasing uncertainty about what is or is not acceptable for the increasingly complex systems of autonomous weapons".[3181]

[3179] M. Pita, UNESCO, *Disinformation During the Pandemic and Latin America's Regulatory Response* (2021), p.9,
https://unesdoc.unesco.org/ark:/48223/pf0000377721_eng
[3180] The American Journal of Tropical Medicine and Hygiene, *The Peru Approach against the COVID-19 Infodemic: Insights and Strategies* (May 20, 2020),
https://www.ajtmh.org/view/journals/tpmd/103/2/article-p583.xml
[3181] Fully Automated Research, *Peru*,
https://automatedresearch.org/news/state_position/peru/

The joint statement addressed the need for "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations, and constraints." "We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force,"[3182] declared the States in the joint statement.

In February 2023, Peru endorsed, along with more than 30 other Latin American and Caribbean states, the Belén Communiqué,[3183] which calls for "urgent negotiation" of a binding international treaty to regulate and prohibit the use of autonomous weapons to address the grave concerns raised by removing human control from the use of force. On this occasion, Peru issued a statement affirming the country's commitment to multilateralism, disarmament and

non-proliferation, with the defense of international law - including international human rights law - as well as with the purposes and principles of the Charter of the United Nations.[3184]

Human Rights

Peru ratified the Universal Declaration of Human Rights in 1979.[3185] In 2022, the Freedom House scored Peru at 72/100 with 30/40 for political rights and 42/60 for civil liberties. Peru's status improved from partially free at 71/100 in 2021 to free because of the country's successful election of a new president despite allegations of electoral fraud made by the opposition party's right-wing candidate.[3186]

[3182] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[3183] *Communiqué of the Latin American and the Caribbean Conference of Social and Humanitarian Impact of Autonomous Weapons* (Feb. 24, 2023), https://www.rree.go.cr/files/includes/files.php?id=2261&tipo=documentos

[3184] Regional Conference on Latin America and the Caribbean States on the Social and Humanitarian Impact of Autonomous Weapons, *Peru Statement* (Feb. 2023), https://conferenciaawscostarica2023.com/wp-content/uploads/2023/02/Peru-Draft_Statement_Peru__en-Costa-Rica_24Feb23_rev-1.pdf

[3185] Danish Institute of Human Rights, *Signatories for Universal Declaration of Human Rights*, https://sdg.humanrights.dk/en/instrument/signees/24

[3186] Freedom House, *Freedom in the World 2022*, https://freedomhouse.org/country/peru/freedom-world/2022

In 2022, Transparency International scored Peru at 36/100 on the Corruption Perceptions Index (CPI) and ranked the country at 105 out of 180 countries scored for being able to stop corruption.[3187] The CPI is the most widely used global corruption ranking in the world. It measures how corrupt each country's public sector is perceived to be, according to experts and businesspeople.

OECD / G20 AI Principles

In 2019, Peru, alongside 41 other countries, adopted the OECD Principles on Artificial Intelligence, and agreed to uphold international standards that aim to ensure AI systems are designed to be robust, safe, fair and trustworthy.[3188] According to OECD AI Principle 2.5 regarding international co-operation for trustworthy AI, "Governments, including developing countries and with stakeholders, should actively cooperate to advance these principles and to progress on responsible stewardship of trustworthy AI. Governments should work together in the OECD and other global and regional fora to foster the sharing of AI knowledge, as appropriate."

The OECD acknowledges the work of the Inter-American Development and its "fAIr LAC" initiative to promote the responsible and ethical use of AI and improve the public services e.g., education, health, and social protection, in Latin American and Caribbean (LAC) countries."[3189] In 2022, the OECD, in partnership with the Development Bank of Latin America (CAF) also published a report on "The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean" The report examined the strategic approach to AI adopted by LAC governments including assessment of Peru's National AI Strategy draft submitted in May 2021.[3190]

[3187] Transparency International, *Corruption Perceptions Index*, https://www.transparency.org/en/cpi/2022/index/per

[3188] OECD, *Forty-two countries adopt new OECD Principles on Artificial Intelligence* (May, 22, 2019), *https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm*

[3189] OECD, *State of implementation of the OECD AI Principles* (June 2021), p. 76, https://www.oecd-ilibrary.org/docserver/1cd40c44-en.pdf?expires=1679145707&id=id&accname=guest&checksum=4A7E8011553F4B626AD9EF4C04ACCDE1

[3190] OECD, *LAC Artificial Intelligence Strategies* (March 22, 2022), https://www.oecd-ilibrary.org/sites/636827ae-en/index.html?itemId=/content/component/636827ae-en

UNESCO Recommendation on the Ethics of Artificial Intelligence

In November 2021, Peru, alongside 192 other states, adopted the Recommendation on Ethics of AI.[3191] The CAF-Development Bank of Latin America and UNESCO signed a letter of intent to work together on the implementation of the Recommendation on the Ethics of Artificial Intelligence (AI) in Latin America and the Caribbean. They pledged to create a Regional Council composed of national and local governments in the region which will support their implementation efforts. There is currently no indication with regard to Peru's participation in the Regional Council.

Evaluation

Peru endorsed the OECD AI Principles and the UNESCO Recommendation on the Ethics of AI. Peru has a fully fledge data protection legal regime that it modernized a few year ago. However, the lack of national AI strategy is of concern in a context marked by surveillance practices and the multiplication of fake news, often amplified by AI. There is a need for Peru to adopt a national AI strategy that protects the rights of the Peruvian citizens.

[3191] UNESCO, *Recommendation on the Ethics of Artificial Intelligence* (Nov. 23, 2021), https://unesdoc.unesco.org/ark:/48223/pf0000381137

Philippines

National AI Strategy

  In May 2021, the Philippines' Department of Trade and Industry (DTI) launched the country's national AI roadmap,[3192] which aims to make the Philippines a regional AI "powerhouse", accelerating "the adoption and utilization of AI in the country to advance industrial development, generate better quality entrepreneurship, and higher-paying opportunities for Filipinos."[3193] The roadmap was developed by the Philippines Council for Industry, Energy and Emerging Technology Research and Development (DOST-PCIEERD) under the country's Department of Science and Technology.[3194] The roadmap identifies various intended applications of AI, including its use in "real estate, banking and financial services, surveillance, retail and e-commerce, education, space exploration, agribusiness, urban planning, manufacturing, healthcare, and logistics and transportation."[3195]The national AI roadmap describes the four important dimensions for AI readiness for implementation, infrastructure and investment, namely:

1) Digitization and Infrastructure;
2) Research and Development;
3) Workforce Development; and
4) Regulation.[3196]

  Central to the DTI's roadmap is the establishment of the National Center for AI Research (NCAIR), whose full-time scientists and research engineers will assist micro, small, and medium enterprises (MSMEs) interested in using AI technology — an element of the country's approach to inclusive AI development. The roadmap also includes plans to build a national data center (NDC).[3197]

[3192] Philippines' Department of Trade and Industry, *Artificial Intelligence Roadmap* (2021), http://innovate.dti.gov.ph/resources/roadmaps/artificial-intelligence/

[3193] Kris Crismundo, *DTI eyes PH as AI powerhouse in region* (May 5, 2021), https://www.pna.gov.ph/articles/1139198

[3194] Philippines Council for Industry, Energy and Emerging Technology Research and Development, *Artificial Intelligence and Information & Communications Technology: Roadmapping Executive Report*, (DRAFT Aug. 2020) http://projects.pcieerd.dost.gov.ph/roadmaps/AIICT.pdf

[3195] Kris Crismundo, *DTI eyes PH as AI powerhouse in region* (May 5, 2021), https://www.pna.gov.ph/articles/1139198

[3196] *Ibid*.

[3197] Philippines' Department of Trade and Industry, *Artificial Intelligence Roadmap* (2021), http://innovate.dti.gov.ph/wp-content/uploads/2021/05/National-AI-Strategy-infographic-2048x1105.jpg

In November 2021, an AI bill was filed under House Bill No. 10457 "Artificial Intelligence Development Act" [3198] establishing a National Strategy for the Development of Artificial Intelligence and Related Technologies, Creating for this Purpose the National Center for Artificial Intelligence Research, and for Other Purposes. The bill seeks to support and institutionalize the DTI's Artificial Intelligence roadmap to help realize the potential of Al in the Philippines.

Furthermore, in February 2020, the DOST launched the Smarter Philippines through Data Analytics, Research and Development, Training and Adoption (SPARTA) initiative to retool and upgrade the skills of an initial 30,000 workers by 2022.[3199] In a press release dated November 2, 2022, the Development Academy of the Philippines shared that more than 40,000 scholarships have been awarded.[3200]

Public Participation

There is some evidence of a public consultation process in the development and implementation of the country's national AI policy. The roadmap mandates the establishment of a "committee of experts in data and AI ethics who will guard against abuse/misuse of data and AI algorithms," but it is unclear whether this committee has been formed and if it will have a mechanism for public consultation.[3201] On October 28th, 2021, pursuant to the DTI's Inclusive Innovation Strategy, the DTI hosted "Artificial Intelligence: Opportunities and Challenges for Philippine Industries," a virtual session open to the public intended to "bring together participants from the government, industries, and academe not only to deliberate on matters of common interest concerning AI but more so to bring everyone into the fold as we embrace and adapt to our new economic realities."[3202] The National Privacy Commission's website includes opportunities for the public to vocalize data-related concerns through its "AskPRIVA" tool and includes contact information to file complaints or to contact relevant

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[3198] House of Representatives, *HB 10457* (Nov. 9, 2021), https://hrep-website.s3.ap-southeast-1.amazonaws.com/legisdocs/basic_18/HB10457.pdf
[3199] *Smart Philippines through Data Analytics R&D and Adoption*, https://sparta.dap.edu.ph/
[3200] *Development Academy of the Philippines* (November 2, 2022), https://sparta.dap.edu.ph/news/advisory-future-sparta
[3201] Philippines' Department of Trade and Industry, *Artificial Intelligence Roadmap* (2021), http://innovate.dti.gov.ph/resources/roadmaps/artificial-intelligence/
[3202] Philippines' Department of Trade and Industry, *Artificial Intelligence: Opportunities and Challenges for Philippine Industries* (Oct. 22, 2021), https://www.dti.gov.ph/advisories/artificial-intelligence-opportunities-challenges-ph-industries/

authorities.[3203] It includes contact information to file complaints or to contact relevant authorities.[1273] DOST and other government agencies will launch programs to help formulate AI policies, laws, and standards to create transparency, accountability, and fairness through its DOST Artificial Intelligence Programs and Technologies of June 2021.[3204]

DTI which is the primary government agency that developed the Philippines' National AI strategy is working on a white paper for a "Philippine AI Governance Framework" led by Mr. Peter A. Sy from the University of the Philippines. A live version of the white paper is open for stakeholder consultation, review, comments, and suggestions.[3205]

Data Protection

The Philippines the Data Privacy Act of 2012 (DPA) "to protect the fundamental human right of privacy, of communication while ensuring free flow of information to promote innovation and growth." The Act also ensures that "personal information in information and communications systems in the government and in the private sector are secured and protected."[3206] Penalties are imposed for violations of the Data Privacy Act under Rule XIII of the DPA IRR with imprisonment and fine.[3207]

The Act mandated the creation of the National Privacy Commission, an independent body, "To administer and implement the provisions of [the Data Privacy Act of 2012], and to monitor and ensure compliance of the country with international standards set for data protection."[3208] It was established in March 2016 and is required to rule-make, provide advice and

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[3203] AskPriva, https://www.privacy.gov.ph/askpriva/

[3204] *DOST Artificial Intelligence and Technologies*, (June 24, 2021), https://www.dost.gov.ph/transparency/about-dost/the-secretary/23-announcements/2315-dost-ai-programs-technologies.html

[3205] Department of Trade and Industry, *Developing an AI Governance Framework for the Philippines: a Report of Preliminary Stakeholder Consultations* and *Review of the Literature* (Sept. 4, 2022), https://innovate.dti.gov.ph/resources/roadmaps/artificial-intelligence/, https://drive.google.com/file/d/1ALGWppX9PnDvAlEMNi8IHyuOqAGvGiwb/view

[3206] *Republic Act 10173*, Data Privacy Act of 2012, Section 1, https://www.privacy.gov.ph/data-privacy-act/#1

[3207] National Privacy Commission, *NPC Circular No. 2022-01:Guidelines on Administrative Fines* (Aug. 8, 2022) https://www.privacy.gov.ph/wp-content/uploads/2022/08/NPC-CIRCULAR-NO.-2022-01-GUIDELINES-ON-ADMINISTRATIVE-FINES-dated-08-AUGUST-2022-w-SGD.pdf

[3208] *Republic Act 10173*, Data Privacy Act of 2012, Section 7, https://www.privacy.gov.ph/data-privacy-act/#7

guidance, and public education, in addition to its compliance, monitoring, and enforcement duties.[3209] Its mission is to:

1) Be the authority on data privacy and protection, providing knowledge, know-how, and relevant technology.
2) Establish a regulatory environment that ensures accountability in the processing of personal data and promotes global standards for data privacy and protection.
3) Build a culture of privacy, through people empowerment, that enables and upholds the right to privacy and supports the free flow of information.

The Commission appears to be active. According to the Commission, by 2018, it had "a total of 23,081 registered Data Protection Officers (DPOs). The number of privacy-related cases the agency received so far, [in 2018] has also increased by 145% from 2017. Of the 542 cases in 2018, 35.52% involved unauthorized processing while 36.44% were on data breaches."[3210]

The National Privacy Commission, the Philippines' independent data protection enforcement agency, is a cosponsor to the Global Privacy Assembly (GPA)'s 2018 Resolution on AI and Ethics and its 2020 GPA Resolution on AI and Accountability. Through its co-sponsorship, the Commission endorses accountability, human rights, transparency, auditability, security, and multi-stakeholder discussions — largely in accordance with OECD AI principles. It is unclear how these principles have been implemented in the country.

A proposal to amend the Data Privacy Act under House Bill No. 5612[3211] was issued last November 2019. It intends to redefine the categories of "sensitive personal information" to include biometric and genetic data, and political affiliation, considering the innate sensitivity of these classes of personal data. Generally, the DPA amendment proposal seeks to improve the Data Privacy Act's implementation and alignment with international standards for data privacy and security. It also aims to address current data privacy challenges as concerns about privacy and other aspects of cross-border data processing are impediments to the country's digital transformation strategy and the creation of a knowledge-based economy.

[3209] *Republic Act 10173*, Data Privacy Act of 2012, Section 1, https://www.privacy.gov.ph/data-privacy-act/#1
[3210] National Privacy Commission, *NPC Eyes fully digital PH by 2040* (Sept. 19 2018), https://www.privacy.gov.ph/2018/09/npc-eyes-fully-digital-ph-by-2040/
[3211] House of Representatives House Bill No. 5612 (Nov. 25, 2019), https://issuances-library.senate.gov.ph/bills/house-bill-no-5612-18th-congress-republic

Meanwhile, the NPC also issued in August 2022 the Advisory on the Adoption of International Data Protection Standard[3212] based on ISO/IEC standards recommending its adoption for information and communication technology (ICT) systems or services where privacy controls are required for personal data processing. This framework is a representation of international privacy principles which include:

1. Consent and choice;
2. Purpose legitimacy and specification;
3. Collection limitation;
4. Data minimization;
5. Use, retention, and disclosure;
6. Accuracy and quality;
7. Openness, transparency, and notice;
8. Individual participation and access;
9. Accountability;
10. Information security;
11. Privacy compliance.

The National Privacy Commission issued NPC Circular No. 2022-04[3213] as of December 2022 updating the requirement on registration of "Automated Decision-Making Systems". The Circular establishes the framework for the registration of data processing systems in the Philippines and imposes other requirements to achieve the following objectives:

- Ensure that personal information controllers (PICs) and personal information processors (PIPs) keep a record of their data processing activities;
- Make information about data processing systems operating in the country accessible to both the Commission, for compliance monitoring, and data subjects, to facilitate the exercise of their rights under the DPA; and
- Promote transparency and public accountability in the processing of personal data.

[3212] National Privacy Commission , *Advisory on the Adoption of International Data Protection Standard No. 2021-001 ISO/IEC 29100* (July 19, 2021), https://www.privacy.gov.ph/wp-content/uploads/2021/07/ISO-IEC_Standard_Adoption_ISOIEC29100_pcrel.pdf.

[3213] National Privacy Commission, *NPC Circular 2022-04: Registration of Data Processing Systems and Notifications Regarding Automated Decision-Making* (December 5, 2022), https://www.privacy.gov.ph/npc-circular-17-01-registration-data-processing-notifications-regarding-automated-decision-making/

Algorithmic Transparency

The Philippines' national AI policies do not explicitly promulgate any commitments to transparency, but its Data Privacy Act mandates "adherence to the principles of transparency, legitimate purpose, and proportionality."[3214] It also includes provisions related to transparent automated processing. Notably, Section 16 furnishes citizens have the right to be informed whether their personal information pertaining is being or has been processed, with the right to information regarding the "[m]ethods utilized for automated access, if the same is allowed by the data subject, and the extent to which such access is authorized," and the right "to access, correction, as well as the right to complain to the Commission."[3215] These are all elements of transparency, which the National Privacy Commission has formally endorsed through its co-sponsorship of the 2020 and 2018 Global Privacy Assembly resolutions[3216] noted above.

Biometric Identification

The government is in the process of registering 105 million citizens, including infants, in its biometric national ID system, PhilSys, which is to include facial, iris, and thumbprint biometrics.[3217] Law enforcement in the Philippines has also implemented and encouraged the use of real-time facial recognition software to identify "persons with Warrants of Arrest, High-Value Targets, and members of communist terror groups evading law enforcers."[3218] According to Crizaldo Nieves, the regional director of the Cagayan Valley Police, all police will eventually have smartphones that enable real-time tracking, and "appropriate awards [will be given] to the first 10 police stations that will affect an arrest through this technology."[3219]

[3214] *Republic Act 10173*, Data Privacy Act of 2012, Section 11, https://www.privacy.gov.ph/data-privacy-act/#7

[3215] *Republic Act 10173*, Data Privacy Act of 2012, Section 16, https://www.privacy.gov.ph/data-privacy-act/#7

[3216] Global Privacy Assembly, *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence* (October 2020),   https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[3217] Congress of the Philippines, *Republic Act No. 11055*, Section 5(c), (July 24, 2017), https://psa.gov.ph/system/files/kmcd/RA11055_PhilSys.pdf

[3218] Artemio Dumlao, *Cagayan Valley cops roll out facial recognition system vs crime*, (Oct. 21, 2020), https://www.philstar.com/nation/2020/10/21/2051265/cagayan-valley-cops-roll-out-facial-recognition-system-vs-crime

[3219] Ibid.

Lethal Autonomous Weapons

Last July 2022, the Philippines along with 10 other countries submitted a draft treaty[3220] that would ban autonomous weapon systems incapable of being controlled by humans to the UN Group of Government Experts (GGE) under the framework of the UN Convention on Conventional Weapons (CCW). Together with countries like Argentina, Costa Rica, Ecuador, El Salvador, Kazakhstan, Nigeria, Panama, Sierra Leone, and Uruguay, the Philippines collaborated in drafting and submitting the draft treaty to the Group of Government Experts (GGE) tasked with discussing proposals to address the issue of autonomous weapon systems under the framework of the UN Convention on Conventional Weapons (CCW). The proposed ban also includes autonomous weapon systems that violate international humanitarian law. It requires countries to regulate other autonomous weapon systems to ensure "meaningful human control is retained" throughout their entire life cycle.

Human Rights

The Philippines has adopted the Universal Declaration of Human Rights, having taken part in its formulation in 2008.[3221] However, its human rights implementation record is highly contested. The country is ranked "Partly Free" on the Freedom House Global Freedom Scores Index, earning a middling score of 56/100.[3222] The Index explains that the "rule of law and application of justice is haphazard and heavily favor political and economic elites" in the country.[3223]

Moreover, a 2020 Amnesty International report found instances of harassment, detention, unjust charges, and extrajudicial executions of human rights defenders and political activists, as well as other human rights violations, and "severe" curtailing of media freedom.[3224]

Additionally, Republic Act (RA) 11934, or the "SIM Registration Act" was signed into law by President Ferdinand Marcos Jr. last October 10, 2022, wherein users register all mobile subscriber identity module

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[3220] Philippines News Agency, *PH, 10 others propose draft treaty on autonomous weapon systems*. (July 27, 2022), https://www.pna.gov.ph/articles/1179967

[3221] Secretary of Foreign Affairs Alberto G. Romulo, *Behind a Common Cause: Advancing with Resolve, Finding Strength in Synergy*, (March 2008), https://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session7/HLS/Philippines-E.pdf

[3222] Freedom House, *Philippines, 2021*, https://freedomhouse.org/country/philippines/freedom-world/2021

[3223] Ibid.

[3224] Amnesty International, *Philippines*, https://www.amnesty.org/en/location/asia-and-the-pacific/south-east-asia-and-the-pacific/philippines/

(SIM) cards with respective public telecommunications entities within 180 days from December 2022. Privacy advocates raised concerns about the potential for abuse of the massive data collection mandated by the new regulation.[3225]

OECD / G20 Principles

The Philippines is not a member of the OECD or the G20, and its roadmap makes little direct mention of the OECD or G20 AI principles. Despite having no explicit endorsement of these international principles, comments from leaders and provisions from the roadmap embody a commitment to OECD principles for human rights, inclusive growth, and transparency. In a keynote speech, DTI Secretary Ramon Lopez remarked how regulation "will protect human rights and put into place equitable AI-activating opportunities into place."[3226]

In the same speech, Lopez noted that the roadmap itself is the "manifestation"[3227] of the Philippine Innovation Act, which articulates and mandates commitments to "innovation efforts to help the poor and the marginalized, enable micro, small and medium enterprises (MSMEs) to be a part of the domestic and global supply chain, and catalyze the growth of Philippine industries and local economies."[3228] To this end, the roadmap itself includes plans to:[3229]

- Build a national data center (NDC) with reliable and robust data infrastructure and data management system;
- Encourage government agencies, research institutions, top universities, and big state universities to main their own data centers linked to the NDC;

[3225] Congress of the Philippines, *RA 11934* (July 25, 2022), https://www.officialgazette.gov.ph/downloads/2022/10oct/20221010-RA-11934-FRM.pdf

[3226] Department of Trade and Industry, *Keynote Speech of Secretary Ramon M. Lopez, National Artificial Intelligence Roadmap Launch*, (5 May 2021), https://www.dti.gov.ph/archives/national-artificial-intelligence-roadmap-launch/

[3227] *Ibid.*

[3228] National Economic and Development Authority, *JOINT NEDA-DOST-DTI ADMINISTRATIVE ORDER NO. 01 SERIES OF 2020*, (Feb. 19, 2020), https://neda.gov.ph/the-philippine-innovation-act/#:~:text=11293%20otherwise%20known%20as%20the,signed%20by%20President%20Rodrigo%20R.&text=The%20law%20mandates%20the%20creation,in%20the%20country's%20innovation%20governance

[3229] Philippines' Department of Trade and Industry, *Artificial Intelligence Roadmap* (2021), http://innovate.dti.gov.ph/wp-content/uploads/2021/05/National-AI-Strategy-infographic-2048x1105.jpg

- Make internet accessible and affordable and improve its quality
- Promote data literacy for all; and
- Identify jobs that are vulnerable to automation and other Industry 4.0 technologies and map the skills that need upgrading or retooling.

UNESCO Recommendation on the Ethics of Artificial Intelligence

As a member of UNESCO, the Philippines along with 192 other member states have adopted the Recommendation on the Ethics of Artificial Intelligence in November 2021, the first global standard on the ethics of artificial intelligence. However, no measures have been put in place by the country to implement the Recommendation.[3230]

Evaluation

The Philippines continues to make strides in national AI policy, being among the 193 countries to endorse the UNESCO Recommendation on the Ethics of AI.[3231] AI is in use across several initiatives in the country, including law enforcement,[3232] healthcare,[3233] autonomous vehicles, infrastructure, and data processing.[3234] The diligent work of the Philippines National Privacy Commission on both domestic issues and at the Global Privacy Assembly contributes to the country's overall favorable score.

[3230] *UNESCO Adopts First Global Standard on the Ethics of Artificial Intelligence | UNESCO.* (Nov 6, 2022)
 https://www.unesco.org/en/articles/unesco-adopts-first-global-standard-ethics-artificial-intelligence.

[3231] Philippine News Agency, *193 countries adopt 1st global agreement on Ethics of AI* (Nov. 26, 2021), https://www.pna.gov.ph/articles/1161070

[3232] Artemio Dumlao, *Cagayan Valley cops roll out facial recognition system vs crime* (Oct. 21, 2020), https://www.philstar.com/nation/2020/10/21/2051265/cagayan-valley-cops-roll-out-facial-recognition-system-vs-crime

[3233] DOST-Science for Change Program, *Launching of DOST AI Programs and Technologies: AI for a Better Normal*, (23 June 2021), https://www.facebook.com/dost.s4cp/videos/3690780667689337/; Newsbytes, *DOST rolls out technologies for AI National Roadmap* (June 24, 2021), https://newsbytes.ph/2021/06/24/dost-rolls-out-technologies-for-ai-national-roadmap/

[3234] The Philippine Council for Industry, Energy, and Emerging Technology Research and Development, *DOST-PCIEERD LAUNCH 9 NEW AI R&D PROJECTS*, (Apr. 8, 2021), https://pcieerd.dost.gov.ph/news/latest-news/422-dost-pcieerd-launch-9-new-ai-r-d-projects

Poland

National AI Strategy

In September 2020, the Polish Council of Ministers Committee for Digital Affairs[3235] adopted the Policy for the Development of Artificial Intelligence in Poland.[3236] The Policy was then adopted by the Council of Ministers as a whole in December 2020.[3237]

The Policy is designed to support and complement the work of the EU and the OECD in AI. Strategic documents the Policy takes into account include: the EU Communication's Coordinated Plan on Artificial Intelligence;[3238] the High-Level Expert Group on AI's Ethics Guidelines for Trustworthy Artificial Intelligence;[3239] the High-Level Expert Group on AI's Policy and Investment Recommendations for Trustworthy Artificial Intelligence;[3240] and the OECD Council Recommendation on Artificial Intelligence.[3241]

The Policy establishes goals and actions for Poland in the field of AI in the short-term (until 2023), medium-term (until 2027), and long-term (after 2027).[3242] Six key thematic areas are identified: AI and society; AI

[3235] Komitet Rady Ministrów do Spraw Cyfryzacjisss (KRMC). The KRMC is an auxiliary body of the Council of Ministers and the Prime Minister. The Council of Ministers serves as Poland's Cabinet with the Prime Minister acting as the President of the Council of Ministers. https://www.gov.pl/web/digitalization/council-of-ministers-committee-for-digital-affairs

[3236] Developed by the Ministry of Digital Affairs, Ministry of Development, Ministry of Science and Education, Ministry of Funds and Regional Policy and Chancellery of the Prime Minister, https://www.gov.pl/attachment/a8ea194c-d0ce-404e-a9ca-e007e9fbc93e.

[3237] OECD, STIP Compass, *Poland's National AI Strategy* (2020), https://stip.oecd.org/stip/policy-initiatives/2019%2Fdata%2FpolicyInitiatives%2F24268

[3238] European Commission, *Coordinated Plan on Artificial Intelligence* (Dec. 7, 2018), https://ec.europa.eu/transparency/regdoc/rep/1/2018/EN/COM-2018-795-F1-EN-MAIN-PART-1.PDF

[3239] European Commission, *Ethics Guidelines for Trustworthy AI* (Apr. 8, 2019), https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai

[3240] European Commission, *Policy and investment recommendations for trustworthy Artificial Intelligence* (June 26, 2019), https://ec.europa.eu/digital-single-market/en/news/policy-and-investment-recommendations-trustworthy-artificial-intelligence

[3241] OECD Legal Instruments, *Recommendation of the Council on Artificial Intelligence* (May 21, 2019), https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449

[3242] Government of Poland, *The development of artificial intelligence in Poland - an important decision* (Sept. 14, 2020), https://www.gov.pl/web/cyfryzacja/rozwoj-sztucznej-inteligencji-w-polsce--wazna-decyzja; European Commission (AI Watch), *Poland AI Strategy Report*, https://knowledge4policy.ec.europa.eu/ai-watch/poland-ai-strategy-

and innovative companies; AI and science; AI and education; AI and international cooperation; and AI and the public sector

The Polish strategy is providing strategic guidance and identifies some key policy initiatives to develop a holistic AI ecosystem. The main objectives are: Reforming the educational system and providing lifelong learning opportunities in AI-related fields; Encouraging growth and innovation of AI companies through dedicated support in AI research, including the provision of sufficient financial resources; Increasing national and international partnerships in AI; Creating a data ecosystem with trustworthy and high-quality data and increased data exchange mechanisms.

In response to the invitation to comment on the draft Policy, the Virtual Chair of Ethics and Law criticized the draft Policy document and recommended significant changes.[3243] In addition to criticizing the structure of the Draft Policy, the Virtual Chair of Ethics and Law called for increased detail regarding strategic goals and objectives and the legal acts required to implement policy.

The Polish Council of Ministers Committee for Digital Affairs is in charge of steering the implementation of the strategy and evaluating its implementation on a yearly basis.

The Polish strategy was drafted on the basis of the 2018 "Assumptions to AI Strategy in Poland" [3244] released by the Minister for Digital Affairs. The Assumptions states that Poland's approach to ethical and legal issues with AI should: be proactive in creating ethical standards and legislation; be inclusive and cooperative; take into account the specific circumstances in Poland; be flexible; instate consistent supportive measures; engage in discussion and consultation; and be firm in response to violations of ethical and legal standards.

The primary goals to be achieved listed in the Assumptions include: developing transparent and effective mechanisms ensuring the protection of fundamental rights, gaining understanding of the social effects of AI, setting ethical standards, and creating high-quality legislation. The Assumptions identify key fundamental rights and values for the development of a legal and ethical approach to AI in Poland: dignity; freedom (described as

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report_en#:~:text=In%20December%202020%2C%20the%20Council,2020%20(Poland%2C%202020).&text=Reinforcing%20the%20digital%20infrastructure%2C%20regulatory,the%20development%20of%20AI%20innovations

[3243] The Council of the Virtual Chair of Ethics and Law, *Comments on the Policy for the Development of Artificial Intelligence in Poland for the years 2019 - 2027* (Nov. 11, 2019), http://cpptint.wpia.uni.opole.pl/rada-wirtualnej-katedry-etyki-i-prawa-zabiera-glos-w-sprawie-ai/

[3244] Ministry for Digital Affairs, *Assumptions for the AI Strategy in Poland* (Nov, 9, 2018), https://www.gov.pl/attachment/1a3fba75-c9f9-4aff-96d8-aa65ce612eab

including freedom to understand processes with which individuals interact and the making of free and independent decisions); privacy and data protection; equality; and justice. The Assumptions call for the development of an ethical impact assessment mechanism. Where AI projects are supported by public funds, ethical impact assessments should take place at various stages of a project's implementation, not just at the application stage. The Assumptions also propose the establishment of an entity designed to, amongst other things: monitor the social impact of AI; recommend regulatory actions; participate in the development of regulations and ethical standards; and perform ethical impact assessments on publicly funded projects. It is envisioned that such an entity would include representatives from science, government, business, and NGOs.

Article 30 of the Polish Constitution – which protects the inherent and inalienable dignity of the person – forms the basis of the Policy approach. While Poland recognizes the importance of the Charter of Fundamental Rights and international human rights treaties in providing a foundation for ethical principles, the Policy suggests that Article 30 of the Polish Constitution provides broader protection.

In response to the EU Commission's White Paper on Artificial Intelligence, Poland professed to sharing the Commission's view on the need to define a clear European regulatory framework that would contribute to building confidence in the AI among consumers and businesses, thereby accelerating the spread of this technology, while ensuring socially, environmentally, and economically optimal results and compliance with EU's laws, principles, and values. However, Poland suggests limiting regulatory action "to the areas of intervention that are only necessary and that promote legal certainty and relations, ensure coordination within the EU, and limit any negative social impact."[3245] Poland states that regulation "should be sufficiently effective to achieve their objectives, but should not be overly prescriptive, as this could lead to disproportionate burdens, especially for SMEs and MSMEs." Poland endorsed incentives for voluntary ex ante control rather than mandatory control. In particular, Poland cautioned against the imposition of mandatory certification regimes.

Public Participation

Documents relating to Poland's development of its AI policy are accessible on the internet. The process that led to the drafting of the Assumptions to AI Strategy in Poland involved the participation of a broad

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[3245] Government of Poland, *Poland's position in the consultations on the White Paper on Artificial Intelligence - a European approach to excellence and trust* (June 12, 2020), https://www.gov.pl/attachment/583eb32c-7344-4317-b607-fee0532c3eeb

range of stakeholders, from science, business, social organizations and public administration.[3246] The subsequent draft Policy document was released for public consultation in August 2019 until September 2019.[3247] According to the government website, 46 entities took part in the consultation.

Data Protection

Since Poland is an EU Member State, the General Data Protection Regulation (GDPR)[3248] is directly applicable in Poland and to Poles. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[3249] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018. The Polish Personal Data Protection Act (PDPA) of 10 May 2018 also entered into force on 25 May 2018. It aims to help implement the GDPR in Poland. The old Personal Data Protection Act of 29 August 1997 has been repealed. The PDPA is accompanied by the 2019 GDPR Implementation Act. The Implementation Act amended Polish sectoral laws, such as labor, consumer protection, insurance, banking or telecommunication laws, in order to ensure compliance with the GDPR.

Regarding the activities of law enforcement authorities, Poland transposed the EU Data Protection Law Enforcement Directive (LED)[3250]. "The directive protects citizens' fundamental right to data protection

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[3246] Digitization of the Chancery of the Prime Minister, *Artificial Intelligence - Poland 2018* (Nov. 9, 2018), https://www.gov.pl/web/cyfryzacja/sztuczna-inteligencja-polska-2118

[3247] Digitization of the Chancery of the Prime Minister, *Public consultations on the project "Policy for the Development of Artificial Intelligence in Poland for 2019-2027"* (Aug. 21, 2019), https://www.gov.pl/web/cyfryzacja/konsultacje-spoleczne-projektu-polityki-rozwoju-sztucznej-inteligencji-w-polsce-na-lata-2019--2027

[3248] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

[3249] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[3250] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[3251] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[3252] The LED also requires for Member States, including Italy, to enable data subjects to exercise their rights via national data protection authorities.[3253]

"Consistency and a high level of protection among Member States is key in order to ensure effective judicial cooperation in criminal matters and police cooperation. The LED provides for the European Data Protection Board (EDPB) [of which the Polish data protection authority is a member] to issue guidelines, recommendations and best practices (on its own initiative or at the Commission's request) in order to ensure that the Member States apply the LED consistently."[3254] The EDPB has produced guidelines on the use of facial recognition technologies in the area of law enforcement.[3255] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[3256]

[3251] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[3252] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[3253] Article 17 of the LED.

[3254] Communication from the Commission to the European Parliament and the Council, *First report on application and functioning of the Data Protection Law Enforcement Directive (EU) 2016/680 ('LED')*, COM/2022/364 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0364&qid=1658824345764#footnote136

[3255] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

[3256] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*,

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Poland is also a member of the Council of Europe and ratified the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[3257]

The Polish data protection authority (DPA) is called the Office of Personal Data Protection.[3258] In December 2022, President of the Personal Data Protection Office approved the first Polish code of conduct compliant with the GDPR. The code of conduct, developed by the Federation of Healthcare Employers' Unions (FZPOZ), concerns the protection of personal data processed in small medical facilities. The Polish supervisory authority has also granted accreditation to RS Jamano, which will act as a monitoring body for the application of the code. The Polish DPA stated, "the purpose of the code of conduct is to ensure the protection of the personal data of patients and other persons in healthcare facilities. Certainly, the adopted code of conduct will not only help medical facilities to comply with the requirements of the GDPR, but also raise awareness of data protection among patients. Raising awareness and broadening of knowledge of the role of personal data protection and building appropriate attitudes among both controllers and citizens is a process in which the Personal Data Protection Office is actively involved."[3259]

The Polish DPA is a member of the Global Privacy Assembly (GPA) since 2002. The DPA co-sponsored the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence[3260] and the 2020 GPA

Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

[3257] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[3258] President of the Office of Personal Date Protection, https://uodo.gov.pl/en

[3259] Polish Data Protection Authority, *The first Polish code of conduct compliant with the GDPR approved* (Dec. 12, 2022), https://uodo.gov.pl/en/553/1325

[3260] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

Resolution on AI Accountability.[3261] However, it did not endorse the 2022 GPA Resolution on Facial Recognition Technology.[3262]

Regarding data retention, the Polish DPA took the position that a controller should delete the data, right after a relationship with a data subject ends. As a result, the controller cannot claim it has a legitimate interest to keep the data for the purpose of potential future legal claims. Polish courts overturned such decisions, stating a controller cannot predict if and when a data subject may raise a claim. But this does not exclude such claims being raised in the future, and the controller has a right to store data to defend itself or exercise its claims.[3263]

In March 2019, the Polish DPA fined Bisnode, a digital marketing company, €220,000 for not notifying data subjects it had acquired their personal data through data scraping methods. The data protection authority ordered the company to reach out directly to these individuals, stating that a notice on its website would not be sufficient notification. It is to be noted that the company had reached out to 679,000 persons whose email addresses it had access to, but did not reach out directly to the data subjects in relation to the 5.7 million other records, which it had estimated would cost it €8 million.[3264]

Algorithmic Transparency

Poland is subject to the GDPR and Convention 108+. Poles have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[3265]

[3261] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[3262] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[3263] The International Association of Privacy Professionals (IAPP), *2022 Global Legislative Predictions*, https://iapp.org/media/pdf/resource_center/2022_iapp_global_legislative_predictions.pdf

[3264] Szymon Sieniewicz, *Data Protected – Poland* (Aug. 2022), https://www.linklaters.com/en/insights/data-protected/data-protected---poland

[3265] See Recital 63 and Article 22 of the GDPR. Article 9 c) of the Convention 108+ as well as Recital 77, *Explanatory Report, Convention 108+*, p. 24, https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[3266] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[3267]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[3268]

In 2019, while taking steps to implement the GDPR, Poland provided all banking customers with the right to an explanation regarding

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[3266] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154
[3267] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154
[3268] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

their creditworthiness assessment when applying for a loan.[3269] STIR – *System Teleinformatyczny Izby Rozliczeniowej* – is a government tool that analyses information collected by financial institutions to detect illegal activity. If suspicion arises, the financial institution can block a flagged account for 72 hours at the request of the tax authorities.[3270]

Unemployment Scoring System

In 2014, an unemployment scoring system was introduced in Poland. The profiling system was dividing unemployed people into three categories based on their responses to a series of questions asked during a computer-based interview.[3271] In a report on the issue, the NGO, Panoptykon, described the process as the computer system calculating the "employment potential" of a given person on the basis of the provided answers.[3272] The amount of assistance the individual received was determined by their categorization. The Polish data protection supervisory authority expressed reservations regarding the use of profiling in this context.[3273] In particular, concerns were raised regarding the protection of personal data and the absence of a transparent procedure to facilitate appeals.[3274] In addition, concerns were raised by the Polish Supreme Audit Office (Najwyższa Izba Kontroli) and the Human Rights Commissioner.

[3269] Article 46 of the GDPR, http://orka.sejm.gov.pl/opinie8.nsf/nazwa/3050_u/%24file/3050_u.pdf; Panoptykon Foundation, *The right to explanation of creditworthiness assessment – first such law in Europe* (June 12, 2019), https://en.panoptykon.org/right-to-explanation.

[3270] Algorithm Watch, *Automating Society 2020* (Oct. 2020), https://automatingsociety.algorithmwatch.org/report2020/poland/; https://www.gov.pl/web/kas/sukces-analityki-stir

[3271] Amendment to the Act on the Promotion of Employment and Labor Market Institutions and Ordinance on the Profiling of Assistance for the Unemployed; https://panoptykon.org/sites/default/files/leadimage-biblioteka/panoptykon_profiling_report_final.pdf

[3272] Amendment to the Act on the Promotion of Employment and Labor Market Institutions and ordinance on the profiling of assistance for the unemployed; https://panoptykon.org/sites/default/files/leadimage-biblioteka/panoptykon_profiling_report_final.pdf

[3273] See, for example, https://archiwum.mpips.gov.pl/download/gfx/mpips/pl/defaultopisy/8216/1/1/Uwagi%20GIODO-IV.pdf; https://panoptykon.org/sites/default/files/leadimage-biblioteka/panoptykon_profiling_report_final.pdf

[3274] Fundacja Panoptykon, *Profiling the Unemployed in Poland: Social and Political Implications of Algorithmic Decision Making* (2015), https://panoptykon.org/sites/default/files/leadimage-biblioteka/panoptykon_profiling_report_final.pdf. See also https://legislacja.rcl.gov.pl/docs//2/171820/171829/171833/dokument89898.pdf.

Eventually, Poland's Constitutional Court found the system to be in breach of the Polish Constitution. The system was abolished by the end of 2019.[3275]

Ultima Ratio

Poland has begun an online arbitration court which incorporates AI techniques. Ultimately, according to *Polish Science*, "artificial intelligence will automatically prepare a ready draft judgment together with justification, processing for this purpose the data and positions of the parties collected in the course of the proceedings."[3276] The first modules began in 2020. Ultimately, artificial intelligence will automatically prepare a ready draft judgment together with justification, processing for this purpose the data and positions of the parties collected in the course of the proceedings. The Ultima Ratio judgment has the same legal force as a decision before a common court.[3277] The main legal issue raised by the use of Ultima Ratio is whether it is compatible with Article 47 of the EU Charter on Fundamental Rights which guarantees the right to a fair trial before an independent and impartial court.

Lethal Autonomous Weapons

Poland was among the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[3278]

[3275] AlgorithmWatch, *Poland: Government to scrap controversial unemployment scoring system* (Apr. 16, 2019). https://algorithmwatch.org/en/story/poland-government-to-scrap-controversial-unemployment-scoring-system/.

[3276] Polish Science, *Ultima Ratio- the first online court of arbitration in Poland to implement Artificial Intelligence* (Jan. 2, 2020), http://polishscience.pl/en/ultima-ratio-the-first-online-court-of-arbitration-in-poland-to-implement-artificial-intelligence/

[3277] Warsaw Business Journal, *Online arbitration as remedy for closed common courts and pandemics* (March 16, 2020), https://wbj.pl/online-arbitration-as-remedy-for-closed-common-courts-and-pandemics/post/126416

[3278] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

In February 2023, Poland participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Government representatives, including Poland, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[3279] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[3280]

Human Rights

Poland is a member of the European Union and Council of Europe and is, accordingly, committed to the upholding of the Charter of Fundamental Rights and the European Convention on Human Rights. In addition, Poland has acceded to international human rights treaties and has signed the Universal Declaration of Human Rights. The Polish Constitution also grants basic rights to citizens and includes prohibitions against discrimination.[3281] While Poland is considered as "free", credited with a score of 81/100 in the Freedom House 2023 Country Report, concerns were raised about the fairness of parliamentary elections, media freedom, judicial

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[3279] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release,
https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action
[3280] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action
[3281] *The Constitution of the Republic of Poland, Article 32,*
https://www.sejm.gov.pl/prawo/konst/angielski/kon1.htm

reforms, and LGBT+ rights.[3282] "Since taking power in 2015, a coalition led by the populist, socially conservative Law and Justice (PiS) party has exerted significant political influence over state institutions and damaged Poland's democratic progress. Recent years have seen an increase in nationalist and discriminatory rhetoric." Poland's ranking on the World Press Freedom Index has dropped from 18th to 66th place since 2015.[3283]

In 2020, the Presidency of the Council of the EU failed to secure unanimous support from the Member States for its conclusions on the application of the Charter of Fundamental Rights in the AI context.[3284] Poland objected to the inclusion of "gender equality." Poland was the only member state in the European Union to oppose the resolution on AI and fundamental rights.[3285] Although Ambassador Andrzej Saros said that Poland will work to support the conclusions in the future, he also stated that: "The Treaties refer to equality between women and men, similar to the Charter of Fundamental Rights. The meaning of 'gender' is unclear; the lack of definition and unambiguous understanding for all member states may cause semantic problems. Neither the Treaties nor the Charter of Fundamental Rights use the term 'gender'."[3286]

The position occurs in the context of the Polish government opposition to the Convention on Preventing and Combating Violence against Women and Domestic Violence.[3287] While consensus was not reached as regards the Presidency's conclusions, the Presidency stressed that the core elements of the conclusions, anchoring the Union's fundamental rights and values in the age of digitalization, fostering the EU's

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[3282] Freedom House, *Freedom in the World 2021 – Poland* (2021), https://freedomhouse.org/country/poland/freedom-world/2021. See also Case C-791/19 R *Commission v Poland* and Case C-619/18 *Commission v Poland*.

[3283] Reporters Without Borders, *World Press Freedom Index 2022*, https://rsf.org/en/index

[3284] European Council, *Artificial intelligence: Presidency issues conclusions on ensuring respect for fundamental rights* (Oct. 21, 2020), https://www.consilium.europa.eu/en/press/press-releases/2020/10/21/artificial-intelligence-presidency-issues-conclusions-on-ensuring-respect-for-fundamental-rights/; https://www.consilium.europa.eu/media/46496/st11481-en20.pdf

[3285] Warsaw Business Journal, *Poland rejects artificial intelligence because of gender* (Oct. 29, 2020), https://wbj.pl/poland-rejects-artificial-intelligence-because-of-gender/post/128788

[3286] Samuel Stolton, *Poland rejects Presidency conclusions on Artificial Intelligence, rights*, Euroactiv (Oct. 26, 2020), https://www.euractiv.com/section/digital/news/poland-rejects-presidency-conclusions-on-artificial-intelligence-rights/

[3287] Eline Schaart, *Poland to withdraw from treaty on violence against women*, Politico (July 25, 2020), https://www.politico.eu/article/poland-to-withdraw-from-istanbul-convention-treaty-on-violence-against-women/

digital sovereignty and actively participating in the global debate on the use of artificial intelligence with a view to shaping the international framework, were shared by all delegations.[3288]

OECD / G20 AI Principles

As a member of the OECD, Poland is committed to the OECD Principles on Artificial Intelligence and references the OECD principles in its AI Policy document.

In December 2020, Poland joined the Global Partnership on AI (GPAI), a multi-stakeholder initiative which aims to foster international cooperation on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[3289]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Poland is a member of the UNESCO and has endorsed the 2021 UNESCO Recommendation on AI Ethics,[3290] the first ever global agreement on the ethics of AI

Evaluation

Poland has yet to release its official national policy for the development of Artificial Intelligence. The precursor documents, including the draft policy, address the legal and ethical implications of AI, but it is difficult to predict what form the final policy will take. As a member of the EU, the Council of Europe, and the OECD, Poland has made commitments to upholding human rights and ethics in and endorsed the OECD AI Principles. Despite these commitments, Poland opposed the Council of Europe's Resolution on AI and fundamental rights. Also of concern is the prospect of the administration of justice by opaque AI techniques.

[3288] Council of the European Union, *Presidency conclusions - The Charter of Fundamental Rights in the context of Artificial Intelligence and Digital Change* (Oct. 21, 2020), https://www.consilium.europa.eu/media/46496/st11481-en20.pdf

[3289] Digital Affairs – Chancellery of the Minister, *Poland joins the Global Partnership on Artificial Intelligence* (Dec. 8, 2020), https://www.gov.pl/web/digitalization/poland-joins-the-global-partnership-on-artificial-intelligence

[3290] UNESCO, *Recommendation on the Ethics of Artificial Intelligence* (Nov. 23, 2021), https://unesdoc.unesco.org/ark:/48223/pf0000381137

Portugal

National AI Strategy

In February 2019, Portugal released its national artificial intelligence (AI) strategy under the name "AI Portugal 2030".[3291] The strategy is promoted by the technical coordination of the National Initiative Digital Competencies e.2030 program,[3292] in cooperation with the Portuguese Science and Technology Foundation, the National Innovation Agency, the Living Science Academy and the Agency for Administrative Modernization (AMA). The implementation of the national strategy is supposed to be monitored by a committee coordinated by the FCT and reviewed annually.[3293] To date, there is no sign of such monitoring mechanism.

AI Portugal 2030 is considered an important milestone for AI in Portugal. The aim is to promote research and innovation in AI for its development and application in the public and private sectors. One of the main goals of AI Portugal 2030 is to "foster a strong investment in AI at national and European levels, mobilise key actors, identify key areas for development and mitigate risks for the citizens and society."[3294]

The general objectives to reach by 2030 are: (1) Added economic growth;[3295] (2) Scientific excellence;[3296] (3) Human development, which includes increasing "the qualifications of the labour force, in particular the technological qualifications, while promoting inclusion and awareness at all levels of education"[3297] and taking into account the need for "societal robustness by building a clear vision of the impacts of AI on democracy, privacy, security, fairness, the labour market, governmental and commercial

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[3291] Portugal INCoDe.2030, *AI Portugal 2030* (Feb. 2019), https://www.portugal.gov.pt/pt/gc21/comunicacao/documento?i=estrategia-inteligencia-artificial-2030.

[3292] Portugal INCoDe.2030 is an integrated public policy initiative dedicated to strengthening digital skills. It aims to increase the knowledge, qualifications and skills of the population, as well as to improve Portugal's positioning and competitiveness in the international context. In order to achieve these goals five lines of action have been defined: inclusion, education, qualification, specialization, and research. INCoDe.2030, https://www.incode2030.gov.pt/.

[3293] *AI Portugal 2030*, p. 35.

[3294] *AI Portugal 2030*), p. 14.

[3295] *AI Portugal 2030,* p. 24.

[3296] *AI Portugal 2030*, p. 24.

[3297] *AI Portugal 2030*, p. 24.

transparency and equity. Although AI is highly disruptive in all these dimensions it also provides, if made ethical-by-design, a set of powerful tools to actually improve society and democracy."[3298]

 The defined action lines to achieve these objectives comprise:

- Inclusion and education. These are considered essential to provide the Portuguese population with minimum knowledge and skills to use the tools available, understand the benefits thereof and also "the risks and threats they have to face, from being screened and targeted with false information to being driven to options that are not necessarily in their benefit."[3299] It is further stated that "safety and privacy are critical issues where an acute sense of risk and responsibility should be achieved."[3300] "Young students should understand the risks and threats that they face in the same way as the rest of the community aggravated with the fact that they spend most of their time immersed in cyberspace with the false feeling that since they are "digital natives", so at ease with technology and devices, their – frail and superficial - expertise protects them from hazards and attacks."[3301]

- Qualification and specialisation**:** AI brings enormous potential for productivity growth in several sectors, but it requires a qualified workforce trained to identify AI opportunities, develop engineering solutions, adapt working environments, and deploy solutions following safe and ethical standards.[3302]

- Research, which should also address the challenges involved in "building trust through data curation in order to avoid biases assuring transparency in the way judgements are made promoting accountability and explainability."[3303]

 AI Portugal 2030 features a human-centered approach. "Portugal's AI Strategy will be based on the fundamental principle of not compromising the dignity of citizens, strongly anchored by the promotion of wellbeing, fairness and quality of life."[3304] "People are the central element of research, innovation, deployment and usage of any AI manifestation."[3305] According with the vision set forth in the AI Portugal 2030, "AI will improve the

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[3298] _AI Portugal 2030_, p. 9.
[3299] _AI Portugal 2030_, p. 12.
[3300] _AI Portugal 2030_, p. 12.
[3301] _AI Portugal 2030_, p. 12.
[3302] _AI Portugal 2030_, p. 13.
[3303] _AI Portugal 2030_, p. 13.
[3304] _AI Portugal 2030_, p. 15.
[3305] _AI Portugal 2030_, p. 16.

quality of services and the efficiency of processes while guarantying fairness, wellbeing and quality of life."[3306] The promotion of a better society should be encompassed by "strong ethical guidelines" protecting "the fundamental rights of citizens and core values."[3307]

AI Portugal 2030 also establishes specific steps to uphold its core values, such as human-centered AI, and to understand its impact on society. These steps are to:

1. "Define regulatory frameworks (also through the creation of regulatory sandboxes);"
2. "Define and deploy guidelines for ethical-by-design AI through an ethical committee for AI and automation;"
3. "Spread awareness on AI and technology in the entire population to promote inclusion;" and
4. "Study the impacts of AI on society (i.e., employment, democracy, and fairness) through focused observations and by promoting research in the respective scientific areas."[3308]

In order to face "societal challenges brought by AI" in terms of "Ethics and safety", the AI Portugal 2030 mentions that it will be necessary to apply "best practices to assess AI projects in terms of risks to safety and ethics and mechanisms to detect and prevent misuse of advanced AI techniques. The legal framework will have to be adjusted to determine liability in conflicts with the involvement of AI decision making".[3309]

At European and international levels, AI Portugal 2030 also lists some related objectives such as "Guarantee[ing] that AI is safely and ethically applied to the various domains;" "Help[ing] companies and regulators find appropriate legal frameworks;" "Further promot[ing] the participation in the European effort for developing regulation and protocols for an Ethical and Secure AI;" and "Develop[ing] regulatory sandboxes articulated with the EU."[3310]

In October of 2020, the Portuguese government, along with thirteen other EU Member States published a position paper on innovative and trustworthy AI.[3311] This paper sets out two visions for the EU's

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[3306] *AI Portugal 2030*, p. 22.
[3307] *AI Portugal 2030*, p. 22.
[3308] *AI Portugal 2030*, p. 26.
[3309] *AI Portugal 2030*, p. 35.
[3310] *AI Portugal 2030*, p. 29.
[3311] Denmark, Belgium, the Czech Republic, Finland, France Estonia, Ireland, Latvia, Luxembourg, the Netherlands, Poland, Portugal, Spain and Sweden, *Innovative and trustworthy AI: two sides of the same coin* (2020), https://eportugal.gov.pt/noticias/portugal-no-grupo-de-paises-europeus-mais-digitais and

development of AI: (1) promoting innovation, while managing risks through a clear framework and (2) establishing trustworthy AI as a competitive advantage. The countries call for a borderless single market for AI in the EU. They state that "[t]he main aim must be to create a common framework where trustworthy and human-centric AI goes hand in hand with innovation, economic growth, and competitiveness in order to protect our society, maintain our high-quality public service, and benefit our citizens and businesses. This can help the EU to protect and empower its citizens, stimulate innovation and progress in society, and ensure its values are protected."

Regarding public administration and its modernization, AI Portugal 2030 also recalls the objective of ensuring the ethical use of AI.[3312] Portugal further implemented such objective by means of the Guide for an Ethical, Transparent and Accountable AI in Public Administration developed by AMA and published in February 2022.[3313]

The AI Guide sets out the main guidelines for implementing AI solutions in the Public Administration. The Guide outlines a set of values and principles in line with human rights protection, and addresses the themes of inclusion, equality, sustainable development and well-being. Harmful effects associated to the use of AI systems are also tackled, along with the importance of implementing rigorous monitoring, auditing, security and safety mechanisms in such cases. Although it was developed for the public sector, the AI Guide is also intended to serve as a reference for the private sector: "[F]rom a reflection that considers both discussions, it is intended to ensure the protection of democracy, the rule of law and fundamental rights, with the operationalization of these concepts in the way AI services are thought, designed, and provided, both in the public and private sectors."[3314] Relatedly, a risk assessment app has been developed based on two aspects: identification and mitigation, thus allowing support to public policies related to Data Science, Big Data, Machine Learning ("ML"), and AI, namely, to disseminate best practices and to establish

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https://www.permanentrepresentations.nl/documents/publications/2020/10/8/non-paper---innovative-and-trustworthy-ai

[3312] _AI Portugal 2030_, p. 32.

[3313] Agência para a Modernização Administrativa (AMA), _GuIA para a Inteligência Artificial Ética, Transparente e Responsável na Administração Pública_ (Feb. 2022), https://tic.gov.pt/documents/37177/293193/GuIA+Respons%C3%A1vel+para+a+IA+na+AP.pdf/9bc6b247-ffbb-6c3c-4b7c-7f7dc579525f

[3314] _GuIA para a Inteligência Artificial Ética, Transparente e Responsável na Administração Pública_, p. 6 (unofficial translation).

assessment criteria that may support prior opinions and funding applications.[3315]

The AI Guide provides an extensive list of safeguards that the government must establish concerning the implementation of AI. These are:
- The respect for privacy, the inviolability of human rights and the principle of social equity;
- The planning of security mechanisms to protect systems from errors, such as distortions, discrimination, manipulation and misuse of data;
- The mitigation of risks associated with its implementation and change;
- The regulation of data use;
- Compliance with a code of ethics;
- The efficiency and sustainability of technologies while enabling them to create benefits for the citizen, society, the environment, the economy and the country;
- Individual participation, social inclusion, freedom of action and self-determination of each citizen in relation to AI;
- Encouraging investment in AI research and development;
- Promoting the potential of emerging technologies;
- The growth of the business fabric, including small and medium enterprises;
- The creation of value in public administration and society; and
- The integration of an employment policy that facilitates the transition.[3316]

The AI Guide further highlights concerns about the impact of AI programs and applications on human rights, and the importance of regulation to address them. The Guide specifies that "the values and principles should be respected by all actors during the life cycle of AI systems, should be promoted through continuous evaluation and evolution of existing laws, regulations, and various international guidelines, notably in relation to human rights, and be aligned with the goals of social, political, environmental, educational, scientific, and economic sustainability."[3317]

[3315] Agência para a Modernização Administrativa (AMA), *Documentos*, https://tic.gov.pt/pt/web/tic/guia

[3316] Agência para a Modernização Administrativa (AMA), *GuIA para a Inteligência Artificial Ética, Transparente e Responsável na Administração Pública* (Feb. 2022), https://tic.gov.pt/documents/37177/293193/GuIA+Respons%C3%A1vel+para+a+IA+na+AP.pdf/9bc6b247-ffbb-6c3c-4b7c-7f7dc579525f, p. 32 (unofficial translation).

[3317] *GuIA para a Inteligência Artificial Ética, Transparente e Responsável na Administração Pública*, p. 40 (unofficial translation).

One of the key pillars of the 2020 Action Plan for Digital Transition[3318] consists in the "Digitalization of the State." The Action Plan refers to the need to define and implement a "National Smart Cities Strategy." A working group was established to present a proposal for a national strategy. The working group has defined some guidance,[3319] however, no further development has taken place to date.

Public Participation

AI Portugal 2030 clearly acknowledges that "[T]he opacity often seen around the implications of AI may be an obstacle for the wider society to make sense of it and take part in the dialogue. AI needs to integrate cognitive diversity to foster social inclusion and transformation. Therefore, we need a diversity of specialists that will foster different perspectives to better solve complex problems. But we also need the whole population to take part in the debate and to get involved in designing AI by voicing priorities of what AI should address in a human-centered approach."[3320]

The definition and adoption of AI Portugal 2030 was preceded by several public discussions,[3321] notably:

- The First National Forum on Digital Skills - INCoDe.2030, including specific sessions on AI (7 December 2017);
- The preparatory meetings and consultations for developing new research activities and further developing competences in AI within Public Administration in Portugal, leading to the approval of the AI Guide (January - February 2018);
- The preparatory meetings and consultations for AI Portugal 2030 strategy (November 2018);
- Consultations with different entities and business enterprises (January to February 2019);
- Presentation and public discussion of the AI Portugal 2030 strategy at FCUP, Porto, with representatives of research centers working on AI (February 15th, 2019);

[3318] Portugal Digital, *Moving Forward. Moving with a Purpose, Portugal's Action Plan for Digital Transition* (5 March 2020), https://portugaldigital.gov.pt/wp-content/uploads/2022/01/Portugal_Action_Plan_for_Digital_Transition.pdf
[3319] Portugal Digital, *National Smart City Strategy* (20 June 2022), https://portugaldigital.gov.pt/en/promote-more-digital-public-services/more-digital-territories/national-smart-city-strategy/
[3320] Portugal INCoDe.2030, *AI Portugal 2030* (Feb. 2019), p. 15, https://www.portugal.gov.pt/pt/gc21/comunicacao/documento?i=estrategia-inteligencia-artificial-2030,.
[3321] *AI Portugal 2030*, pp. 4-5.

- Presentation and public discussion of a draft version of AI Portugal 2030 in the second National Forum on Digital Skills - INCoDe.2030 (December 12th, 2018);
- Launch of a call within the System to Support the Modernisation and Capacitation of Public Administration (SAMA2020) to finance Data Science and Artificial Intelligence projects within Public Administration (January 14th, 2019);
- Presentation and public discussion of the AI Portugal 2030 strategy at INL, Braga, with EC´s Deputy DG Connect (February 12th, 2019);
- Presentation and public discussion of the AI Portugal 2030 strategy in Porto, together with the presentation of OECD 2018 S&T Outlook (February 25th, 2019); and
- Presentation and public discussion about the implications of AI Portugal 2030 strategy in "Fórum de Governação da Internet 2022" in Lisboa, with multiple stakeholders.

The strategy adopted by Portugal involves a multisectoral approach that brings together many representatives from research, academia, companies, and public administration.[3322] Some sectoral initiatives are also worth mentioning.

The AI Guide mentions the goal of bringing "into public discussion the need to establish the pillars of regulation, supervision, leadership, and governance, develop a code of ethics, and foster regulation and laws that provide guidance and support for technological developments."[3323] Additionally, recognizing that the risk assessment app is an "evolving platform" and should gather contributions from its users, AMA allows users to report, at any time, any errors or elements that may benefit its development, e.g. regarding assessment dimensions or issues crucial for the risk assessment of intelligent systems.[3324] After the AI Guide was first announced in late January 2022, AMA launched a public consultation on the text of the document in February 2022, with the goal of enriching the AI Guide with the contributions of experts and society as a whole.[3325]

[3322] *AI Portugal 2030*, p. 10.

[3323] Agência para a Modernização Administrativa (AMA), *GuIA para a Inteligência Artificial Ética, Transparente e Responsável na Administração Pública* (Feb. 2022), p. 7, https://tic.gov.pt/documents/37177/293193/GuIA+Respons%C3%A1vel+para+a+IA+na+AP.pdf/9bc6b247-ffbb-6c3c-4b7c-7f7dc579525f, (unofficial translation).

[3324] *GuIA para a Inteligência Artificial Ética, Transparente e Responsável na Administração Pública*, p. 58.

[3325] *Guia para a Inteligência Artificial na Administração Pública em consulta pública até 28 de fevereiro*

In 2019, the Shared Services of the Ministry of Health[3326] launched a public consultation on a strategic document entitled "From big data to smart health: putting data to work for the public's health" ("Health Data Strategy")[3327] for the use of National Health Service ("NHS") data. The purpose of the consultation was inter alia to "encourage participation of citizens, professionals, associations, companies, as well as National Health Service institutions and Ministry of Health agencies, in the secondary use of health data and AI in Portugal" and "ensure an articulated and aligned strategy, highlighting constrains, concerns and solutions in the secondary use of health data in Portugal."[3328]

In 2021, the Office for Strategy and Planning of the Ministry of Labor, Solidarity and Social Security and the Institute of Employment and Vocational Training launched a public consultation on a Green Paper on the Future of Work. [3329] The goal was to move towards a broad and comprehensive discussion of the Green Paper with the "engagement of academics, thinkers, civil society, and social partners, creating guidelines to prepare the country for the challenges of the future of work, transform uncertainties into opportunities, respond to the challenges posed by the digital revolution."[3330] The final version of the Green Paper mentions that "the entire Paper, from the beginning to the final stages, was based on a process of participatory consultation – of social partners, experts, research centers, international organizations, companies, other stakeholders,

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[3326] A legal entity under public law, subject to the supervision of the members of the Government responsible for the areas of finance and health, whose main objective is to provide shared services in the areas of procurement and logistics, financial services, human resources, and information and communication systems and technologies in the area of health to establishments and services of the National Health Service.

[3327] Shared Services of the Ministry of Health (SPMS), Advanced Analytics and Intelligence Unit Information Systems Department, *From Big Data To Smart Heatlh, Putting Data To Work For The Public's Health* (Dec. 2019), https://www.spms.min-saude.pt/wp-content/uploads/2020/07/Data-Strategy_VERSAOFINAL_07.01.2020.pdf

[3328] Shared Services of the Ministry of Health (SPMS), *Public Consultation on Data Strategy and Artificial Intelligence in the National Health Service*, https://www.spms.min-saude.pt/2019/08/public-consultation-on-the-health-data-usage-strategy/

[3329] Gabinete de Estratégia e Planejamento (GEP) and& Instituto do Emprego e Formação Profissional (IEFP), *Green Paper on the future of work 2021* (Mar. 2022), http://www.gep.mtsss.gov.pt/documents/10182/79392/livro_verde_do_trabalho_2021_EN.pdf/7e63e982-8a4e-45a1-bc0c-ad707fbbe1b2

[3330] Portuguese Government, *Livro Verde sobre o Futuro do Trabalho* (June 2, 2021), https://www.portugal.gov.pt/pt/gc22/comunicacao/documento?i=livro-verde-sobre-o-futuro-do-trabalho.

different areas of government - culminating in the public consultation it underwent."[3331]

Between June and July of 2022, the Portuguese Securities and Exchange Commission (CMVM) launched a public consultation on AI in the financial sector, more precisely regarding capital markets, inviting all interested parties to contribute to the public discussion.[3332] The objective was to "deepen knowledge on implementing this technology in the Portuguese market and identify AI tools that may be used in areas under CMVM supervision."[3333] It was also CMVM's goal to "foster the use of responsible AI and improve the services and tools that investors can access to have more efficiency gains and create new business models."[3334]

The opening of the consultation was accompanied by the launch of a consultation and reflection document, in which the CMVM presented a possible definition of AI and listed the economic developments it enables and the laws that frame it. It clarified that, in the specific case of capital markets, AI has a "transformative potential", namely with the implementation of applications that offer advice to the general public or make automated decisions "based on the analysis of large amounts of data " or "on the interpretation of information."[3335] It further acknowledged risks relating to the use of AI in capital markets: "alongside the potential benefits there are risks that may arise or be enhanced by the use of AI. At the investor level, if AI systems are not properly implemented and monitored, they can lead to potentially discriminatory outcomes, unfairly rewarding certain

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[3331] Gabinete de Estratégia e Planejamento (GEP) and Instituto do Emprego e Formação Profissional (IEFP), *Green Paper on the future of work 2021* (Mar. 2022), http://www.gep.mtsss.gov.pt/documents/10182/79392/livro_verde_do_trabalho_2021_E N.pdf/7e63e982-8a4e-45a1-bc0c-ad707fbbe1b2, p. 15.

[3332] Comissão do Mercado de Valores Mobiliários (CMVM), *CMVM lança consulta pública sobre Inteligência Artificial (IA)* (June 7, 2022), https://www.cmvm.pt/pt/Comunicados/Comunicados/Pages/20220607n.aspx?v=.

[3333] Comissão do Mercado de Valores Mobiliários (CMVM), *CMVM lança consulta pública sobre Inteligência Artificial (IA)* (June 7, 2022), https://www.cmvm.pt/pt/Comunicados/Comunicados/Pages/20220607n.aspx?v= (unofficial translation).

[3334] Comissão do Mercado de Valores Mobiliários (CMVM), *CMVM lança consulta pública sobre Inteligência Artificial (IA)* (June 7, 2022), https://www.cmvm.pt/pt/Comunicados/Comunicados/Pages/20220607n.aspx?v= (unofficial translation).

[3335] Comissão do Mercado de Valores Mobiliários (CMVM), *Artificial Intelligence and Capital Markets: Consultation and Reflection Document* (*Inteligência Artificial e o Mercado de Capitais: Documento de Reflexão e Consulta*) (Jun. 2022), p. 3, https://www.cmvm.pt/pt/Comunicados/Comunicados/Documents/Documento%20de%20 Reflex%C3%A3o%20e%20Consulta%20sobre%20Intelig%C3%AAncia%20Artificial% 20e%20o%20Mercado%20de%20Capitais.pdf, (unofficial translation).

groups at detrimental to others. Additionally, the collection, storage and extensive use of data may raise privacy and data protection issues, for example if exploited inappropriately."[3336]

Data Protection

Since Portugal is an EU Member State, the General Data Protection Regulation (GDPR)[3337] is directly applicable in Portugal and to Portuguese. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[3338] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018. Law no. 58/2019 of 8 August 2019 ("Portuguese Data Protection Law" - PDPL) adapts Portuguese law to the GDPR. The Portuguese Data Protection Law revoked the 1998 data protection law, Law no. 67/98, of 26 October 1998. In September 2019, the National Commission for Data Protection (CNPD) issued a resolution stating that it will disregard the parts of the PDPL which do not comply with the GDPR.[3339]

Regarding the activities of law enforcement authorities, Portugal transposed the EU Data Protection Law Enforcement Directive (LED)[3340] in 2019.[3341] "The directive protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement

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[3336] *Artificial Intelligence and Capital Markets: Consultation and Reflection Document*, p. 6 (unofficial translation).

[3337] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

[3338] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[3339] CNPD, *Resolution no. 2019/494*. See Carlos Pinto Correia, *Data Protected – Portugal* (July 2022), https://www.linklaters.com/en/insights/data-protected/data-protected---portugal

[3340] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[3341] *Law no. 59/2019 of 8 August 2019 on the protection of natural persons regarding processing of personal data connected with criminal offences or the execution of criminal penalties, and on the free movement of such data.*

authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[3342] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[3343] The LED also requires for Member States, including Portugal, to enable data subjects to exercise their rights via national data protection authorities.[3344]

"Consistency and a high level of protection among Member States is key in order to ensure effective judicial cooperation in criminal matters and police cooperation. The LED provides for the European Data Protection Board (EDPB) [of which the Portuguese data protection authority is a member] to issue guidelines, recommendations and best practices (on its own initiative or at the Commission's request) in order to ensure that the Member States apply the LED consistently."[3345] The EDPB has produced guidelines on the use of facial recognition technologies in the area of law enforcement.[3346] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[3347]

[3342] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[3343] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[3344] Article 17 of the LED.

[3345] Communication from the Commission to the European Parliament and the Council, *First report on application and functioning of the Data Protection Law Enforcement Directive (EU) 2016/680 ('LED')*, COM/2022/364 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0364&qid=1658824345764#footnote136

[3346] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

[3347] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Portugal is also a member of the Council of Europe and ratified the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[3348]

AI Oversight

Portugal does not have an exclusive and mandatory agency responsible for AI oversight. For the time being, multiple lateral bodies are competent such as the CNPD, the National Communications Authority, the Portuguese Commission for Human Rights, and the National Cyber Security Centre. However, the CNPD is considered the main responsible body when it comes to the control and supervision of AI, given the powers conferred to it by data protection law[3349] in order to safeguard data subjects' rights with regard to the processing of their personal data.[3350]

The CNPD is a member of the Global Privacy Assembly (GPA) since 2002. The CNPD co-sponsored the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[3351] as well as the 2020 GPA Resolution on AI Accountability.[3352] However, it did not endorse the 2022 GPA Resolution on Facial Recognition Technology.[3353]

[3348] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[3349] Notably under the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC ("General Data Protection Regulation" or "GDPR").

[3350] Comissão Nacional de Proteção de Dados (CNPD), *O que somos e quem somos*, https://www.cnpd.pt/cnpd/o-que-somos-e-quem-somos/.

[3351] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[3352] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[3353] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology (Oct. 2022)*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-

Algorithmic Transparency

Portugal is subject to the GDPR and Convention 108+. Portuguese have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[3354]

AI Portugal 2030 also considers that AI-based systems must be able to explain their decisions, on top of promoting a high level of adaptability and accountability of their decision-making, advancing accountability and fairness. In order to face "societal challenges brought by AI" in terms of "Ethics and safety", it is clearly recognized in AI Portugal 2030 that "AI systems will make important and critical decisions autonomously" and that "(…) society will demand transparency (the ability to explain the decisions) and audibility (the ability to trace the flow of decisions and actions from humans to algorithm) in order to promote safety and ethical principles, including privacy protection and fairness."[3355]

Regarding policies involving algorithmic transparency, Portugal has proposed an Open Data Strategy in the scope of Portugal INCoDe.2030 to create knowledge in the scientific area and promote the efficient use of public resources as well as transparency within public administration. The strategy takes a pragmatic approach to "build social and technical bridges that enable the sharing and reuse of data."[3356] The view is that the multisectoral and transversal strategy can bring together academia, so that it can propose practical principles and limits to the implementation of the open data policy; the economic agents that will be able to exploit such data; the public administration that will use such data in its accountability and transparency mechanisms; and society that has the right to be informed and participate in the decision-making processes that involve its data.[3357]

Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[3354] See Recital 63 and Article 22 of the GDPR. Article 9 c) of the Convention 108+ as well as Recital 77, *Explanatory Report, Convention 108+*, p. 24, https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1

[3355] *GuIA para a Inteligência Artificial Ética, Transparente e Responsável na Administração Pública*, p. 35.

[3356] Portugal INCoDe.2030, *Open Data Strategy INCoDE.2030: Preliminary Report* (*Estratégia de Dados Abertos INCoDE.2030 - Relatório Preliminar*) (Jan. 20, 2021), https://www.incode2030.gov.pt/sites/default/files/relatorio-preliminar-estrategia-dados-abertos_0.pdf, p. 3 (unofficial translation).

[3357] *Open Data Strategy*, p. 3.

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[3358] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[3359]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[3360]

[3358] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (April 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[3359] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (April 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[3360] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (April 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

Use of AI in Covid-19 Response

In 2020, the Portuguese government intended to deploy a system called "Smart Crowd", which sought to help control the occupation rates of the Portuguese beaches in the context of the Covid-19 pandemic. The system involved using cameras that collected images and processed them on the basis of machine learning (ML) technology in order to inform users regarding the occupancy level of a particular beach was. The Portuguese Agency for Environment (APA) requested the CNPD to analyze the Smart Crowd system.

In June 2020, the CNPD issued a deliberation in response to APA's request.[3361] The CNPD acknowledged that "people on beaches are particularly exposed, and therefore the capture of images is likely to lead to improper use with direct repercussions on their private lives."[3362]

With regards to the ML technology used by the system, the CNPD noted, "The documentation provided refers in this respect to "an ML (and others) algorithm", which run internally in the computer without recourse to external libraries or functions. However, it is neither explained which algorithm is to be applied, nor what the others are. The use of AI, in particular when it involves self-learning techniques, requires an effort of transparency precisely to create indispensable trust in its use, especially in the context of the processing of personal data. Even if one may admit that the algorithm has only the purpose of adapting the characteristics of the photograph to the external environmental conditions (e.g., luminosity, wind), as it is alleged, it is up to those who develop the system and use it to demonstrate that these technologies are not able to generate discriminatory treatments to people. Moreover, in this context, it is incomprehensible how one can refer to 'others', without specifying what is at stake."[3363]

The CNPD continues explaining that: "[I]n the same way, the processing carried out on the server - which only accepts invocations from certain IP addresses - also applies a Machine Learning algorithm, "trained through the variables it collects, namely identifying the effective areas of sand and taking into account the useful variations of the same throughout the day due to the tidal effect, so that the result returned is as reliable as possible. The machine learning algorithm is trained to learn over time with different occupation patterns." Now, this explanation of the rationality of

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[3361] Comissão Nacional de Proteção de Dados (CNPD), *Resolution 2020/251* (3 June 2020) *https://www.cnpd.pt/umbraco/surface/cnpdDecision/download/121802*.
[3362] *GuIA para a Inteligência Artificial*
Ética, Transparente e Responsável na Administração Pública, p.4 (unofficial translation).
[3363] *GuIA para a Inteligência Artificial*
Ética, Transparente e Responsável na Administração Pública, p.3 (unofficial translation).

the algorithm, although relevant, does not demonstrate the existence of guarantees that it is sufficiently shielded against the possible application of other factors that may generate discrimination. And this is a question that is not and cannot be ignored by those who use self-learning technologies. Furthermore, nothing is made clear as to how the learning is carried out over time, and it seems essential, in order for this to occur, to confirm the acuity of the learning (by the quality of the conclusions) and change the algorithm accordingly, which, unless otherwise demonstrated, will always require human intervention."[3364]

The CNPD then concluded that it "believes that the responsible party should be able to demonstrate that the machine learning algorithms are sufficiently shielded against the possible application of other factors that may generate discrimination."[3365]

Facial Recognition

In September 2021, a legislative proposal aimed at regulating the use of video surveillance for security purposes was submitted to the Portuguese Parliament.[3366] The draft Article 18 allowed for the use of an "analytical management system for the data captured, by application of technical criteria under the purposes for which the systems are intended"; authorized the collection of biometric data for such purposes; and established that the analytical management system "may not allow the reversal, decoding and digitalized reproduction of the image of the biometric characteristic."[3367]

Upon consultation by the Committee on Constitutional Affairs, Rights, Freedoms and Guarantees of the Portuguese Parliament, the CNPD issued an opinion on the Proposal on November 4, 2021.[3368] The CNPD concluded that Article 18 contains a covert provision for the use of facial

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[3364] *GuIA para a Inteligência Artificial*
Ética, Transparente e Responsável na Administração Pública, p.3 (unofficial translation).
[3365] *GuIA para a Inteligência Artificial*
Ética, Transparente e Responsável na Administração Pública, p.3 (unofficial translation).
[3366] Portuguese Parliament, *Law Proposal 111/XIV/2* (Sep. 2021), https://www.parlamento.pt/ActividadeParlamentar/Paginas/DetalheIniciativa.aspx?BID=121083 and https://app.parlamento.pt/webutils/docs/doc.pdf?path=6148523063484d364c793968636d356c6443397a6158526c6379395953565a4d5a5763765247396a6457316c626e6527663306c7561574e7059585270646d4576596d46695a4751324d5451744d7a4a6a4e693030596d4d344c57466a6d4d4451745a444531597a686c4e546b314f4463354c6c42765265933673d&fich=babdd614-32c6-4bc8-ac04-d15c8e595879.docx&Inline=true
[3367] *Law Proposal 111/XIV/2*, Article 18 (unofficial translation).
[3368] Comissão Nacional de Proteção de Dados (CNPD), *Opinion 2021/143* (4 November 2021), https://www.cnpd.pt/umbraco/surface/cnpdDecision/download/121933

recognition and criticized such provision. "The circumstance that the national legislator, in the present Proposal, incorporates in the same article the permission to use data analytics technology and the permission to process biometric data, without expressly stating the permission to use facial recognition technology, is certainly surprising, when in a democratic State governed by the rule of law the restrictions to rights, freedoms and guarantees must be clearly and exhaustively determined by law."[3369]

The CNPD continues, "it is, in fact, about giving a green light to mass surveillance by security forces and services, denying any dimension of privacy that might still remain in public space (and in private space open to the public). It allows the tracking of citizens enhanced by the possibility of relating the information available in the video-surveillance systems of public and private establishments and other private spaces open to the public, to which is added the use in the daily activity of the security forces and services of portable cameras also with drones. The impact that such control can have on any democratic society is clear, due to the ease with which this tool can be used as a means of repression of freedom of expression, demonstration and assembly, as recent examples from other parts of the world have shown".[3370] The CNPD further considered that the error rates associated with facial recognition technologies, "and especially with the relevance that ethnic or racial origin assumes in its promotion, the risk of discrimination is too great to be taken lightly in our legislation."[3371]

The CNPD concluded: "In short, Article 18 of the Proposal provides for a mass surveillance system through the generic use of data analytics and facial recognition technologies, which represents a restriction of citizens' fundamental rights, without complying with the rule of law, even as regards the essential clarity and transparency regarding the provision of these restrictions, and without providing any guarantees of these rights, and therefore proves to be in breach of the requirements set out in paragraphs 2 and 3 of Article 18 of the CRP [Portuguese Constitution]. This is contrary to the requirements laid down in Article 18(2) and (3) of the Charter of Fundamental Rights of the European Union and is liable to affect the essential content of the right to respect for private life, manifestly infringing the principle of proportionality."[3372]

The Proposal also suffered criticism from civil society organizations. On 15 November 2021, European Digital Rights (EDRi)

[3369] *Opinion 2021/143*, para. 125 (unofficial translation).
[3370] *Opinion 2021/143*, para. 126 (unofficial translation).
[3371] *Opinion 2021/143*, para. 132 (unofficial translation).
[3372] *Opinion 2021/143*, para. 140 (unofficial translation).

released a statement[3373] in which it mentioned that the Proposal put "(...) forward sweeping measures which would permit the constant video and biometric mass surveillance of each and every person" and that such law was "likely to be incompatible with the essence of Portugal's constitutional obligations to ensure that restrictions on fundamental rights are necessary and proportionate (Article 18(2) CRP); with Portugal's obligations under the Charter of Fundamental Rights of the European Union (including but not limited to articles 1, 7, 8, 11, 12, 20, 21, 41, 47, 48 and 49); and the European Convention on Human Rights."[3374]

The following aspects of the Proposal were especially criticized by EDRi: (i) the removal of "current legal safeguards limiting the use of invasive video surveillance"; (ii) the possibility of "video surveillance by aerial drones without limits"; and (iii) the possibility of combining the video surveillance networks "with facial recognition and other AI-based systems in public spaces."[3375] EDRi maintained that the combination of these measures "would be highly likely to unduly restrict the rights and freedoms of large parts of the Portuguese population and to constitute unjustified biometric mass surveillance practices."[3376]

After all the public scrutiny and intense discussion in Parliament,[3377] the Proposal was sent to the Committee for final drafting and on December 29, 2021, Law 95/2021 was passed with several significant changes to the initial wording. The installation of these systems now follows several additional principles of use and general obligations, namely:

- The video surveillance systems can only be used for the purposes provided in the Internal Security Law, approved by Law No. 53/2008 of August 29, and only for specific cases established in Article 3(1);
- The use of video cameras should be regulated by the principle of proportionality (Article 4(1));

[3373] European Digital Rights (EDRi), *Letter re. Serious fundamental rights concerns about proposed Portuguese video surveillance Law 111/XIV/2* (Nov. 15, 2021), https://edri.org/wp-content/uploads/2021/11/EDRi-Civil-Society-letter-to-Portuguese-Parliament-on-proposed-video-surveillance-law.pdf.

[3374] European Digital Rights (EDRi), *Letter re. Serious fundamental rights concerns about proposed Portuguese video surveillance Law 111/XIV/2*, p. 1.

[3375] European Digital Rights (EDRi), *Letter re. Serious fundamental rights concerns about proposed Portuguese video surveillance Law 111/XIV/2*, p. 1.

[3376] European Digital Rights (EDRi), *Letter re. Serious fundamental rights concerns about proposed Portuguese video surveillance Law 111/XIV/2*, p. 2.

[3377] For more information and details about the Proposal approval process, https://www.parlamento.pt/ActividadeParlamentar/Paginas/DetalheIniciativa.aspx?BID=121083

- When considering, on a case-by-case basis, the specific purpose for which the video-surveillance system is intended, the possibility and degree of affectation of personal rights arising from the use of video cameras should be considered (Article 4(3));
- The capturing of images and sounds is forbidden when such capturing directly and immediately affects the sphere of the privacy of intimate and private life (Article 4(6));
- The installation of video surveillance systems using fixed cameras is subject to authorization by the member of the government that exercises control over the requesting security force or service or the National Authority for Emergency and Civil Protection (Article 5(1));
- The application for authorization to install video surveillance systems must be accompanied by the following elements – Article 6(1):
    o Justification of the need and convenience of installing the surveillance system by video cameras;
    o Identification of the location and area covered by the capture;
    o Identification of the camera installation points;
    o Technical characteristics of the equipment used;
    o Identification of the security force service responsible for the conservation and treatment of the data;
    o Procedures for informing the public about the existence of the system;
    o Description of the criteria used in the analytic management system of the captured data;
    o Mechanisms to ensure the correct use of the recorded data;
    o Proof of approval, capacity or guarantee of financing for the installation of the equipment used and the respective maintenance costs;
    o Assessment of the impact of data processing on personal data protection;
- The authorization decision is preceded by an opinion from the CNPD on the request regarding compliance with the rules on the security of the processing of the data collected and those foreseen in cases involving sensitive data (Article 5(3)); and,
- For the purposes set out in Article 3, the data processing may be underpinned by an analytical management system for the data

captured, by applying technical criteria in accordance with the purposes for which the systems are intended. In this context, the capture and processing of biometric data is not permitted (Article 16 (1) and (2)).

In 2022, the Legislative Assembly of the Azores Region requested the CNPD to issue an opinion on Law Proposal 15/XII, on the first amendment to Law 95/2021, of December 29 ("Regional Proposal").[3378] This proposal was aimed exclusively at extending the purposes of Article 3 of the proposed legislation to allow for the installation and use of systems for the protection and conservation of marine environments and the conservation and recovery of marine living resources. The CNPD recommended that the capture be prohibited as required and that a specific regime be established for the use of drones for this specific purpose, with the exclusion of the coastal zone. The Regional Proposal has not yet been voted by the Legislative Assembly of the Azores Region.[3379]

Use of AI in Education

In April 2020, in the context of the Covid-19 pandemic and the restrictive measures that followed, the CNPD issued guidance for the use of technologies supporting distance learning.[3380] The CNPD considered that distance learning could enhance "the automated collection of information and the subsequent analysis and prediction of aspects related, namely, to intellectual skills, professional skills, personality traits, professional performance and even the users' health. This is especially evident in platforms that provide educational content specifically tailored to each user, which results in automated decision-making based on artificial intelligence systems that analyze student behaviour and performance (learning analytics)".[3381]

[3378] Legislative Assembly of the Azores Region, *Law Proposal 15/XII, first amendment to Law no. 95/2021, of December 29, which regulates the use and access by the security forces and services and by the ANEPC to surveillance systems for capturing, recording and processing images and sound* (Nov. 2021), http://base.alra.pt:82/4DACTION/w_pesquisa_registo/3/3467.

[3379] Comissão Nacional de Proteção de Dados (CNPD), *Parecer/2023/2* (Jan. 10, 2023), https://www.cnpd.pt/umbraco/surface/cnpdDecision/download/122041

[3380] Comissão Nacional de Proteção de Dados (CNPD), *Orientações para utilização de tecnologias de suporte ao ensino à distância* (Apr. 8, 2020), https://www.cnpd.pt/media/1encswse/orientacoes_tecnologias_de_suporte_ao_ensino_a_distancia.pdf.

[3381] Comissão Nacional de Proteção de Dados (CNPD), *Orientações para utilização de tecnologias de suporte ao ensino à distância*, p. 1 (unofficial translation).

The CNPD further noted that the use of such technologies could pose "risks for the fundamental rights of users, in particular, the right to respect for private and family life and the right to equality, in terms of non-discrimination."[3382] The guidance document intends to address such risks, framing the use of technology to "a set of legal obligations and good practices that mitigate the risks to privacy and prevent discrimination against students and professionals."[3383]

The guidance was especially aimed at data controllers and processors, as well as public bodies taking decisions involving the use of technologies that encompass automated decision-making. In this context, it encompasses a set of specific recommendations aimed at minimizing the impact on the privacy of students and teachers. Regarding the use of automated decision-making technologies, "the use of any performance analysis algorithms (learning analytics) should always be judicious and done in a fair and transparent way to the data subjects and only if any of the conditions for the lawfulness of this treatment are met. It is important to reinforce here that no educational establishment can impose the use of this specific artificial intelligence technology on its students, as such use depends on the informed, free, specific and explicit will of the student or, when minor, of the person representing them. Clear information should be given to the bearers regarding how the analysis algorithms work, namely when automated decisions are involved. And the data subject's right to obtain human intervention in the process should always be guaranteed."[3384]

In November 2020, the Council of Europe Consultative Committee of Convention 108 issued Guidelines on Children's Data Protection in an Education Setting, also applicable to remote e-learning solutions and services.[3385] The Committee recalls that "[t]he UN Convention Committee on the Rights of the Child set out in 2001, that "Education must be provided

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[3382] Comissão Nacional de Proteção de Dados (CNPD), *Orientações para utilização de tecnologias de suporte ao ensino à distância*, p. 2 (unofficial translation).

[3383] Comissão Nacional de Proteção de Dados (CNPD), *Orientações para utilização de tecnologias de suporte ao ensino à distância*, p. 2 (unofficial translation).

[3384] Comissão Nacional de Proteção de Dados (CNPD), *Orientações para utilização de tecnologias de suporte ao ensino à distância*, pp. 4-5 (unofficial translation).

[3385] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data Convention 108, *Guidelines on Children's Data Protecion in an Education Setting* (Nov. 20, 2020), https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

in a way that respects the inherent dignity of the child and enables the child to express his or her views freely.'"[3386]

The Committee also states that: "Stakeholders should collaborate to create a rights-respecting environment, to uphold Article 8 of the European Convention on Human Rights and protect the human dignity and fundamental freedoms of every individual, in respect of data protection.

"Children cannot see or understand how large their digital footprint has become or how far it travels to thousands of third parties across or beyond the education landscape, throughout their lifetime. While children's agency is vital and they must be better informed of how their own personal data are collected and processed, there is at the same time a consensus that children cannot be expected to understand a very complex online environment and to take on its responsibilities alone."[3387]

"Processing must not involve more data than necessary to achieve the legitimate purpose. This is particularly important when consent cannot be freely given because the choice is to use a product and receive remote instruction or refuse and receive none."[3388] Identified as a key principle of data processing is: "A precautionary approach and a strengthened protection towards sensitive, special categories of data, including genetic and biometric data, and ethnic origin, or relating to sexual orientation, or offences, recognising children's additional vulnerability."[3389]

"Profiling of children should be prohibited by law. In exceptional circumstances, States may lift this restriction when it is in the best interests

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[3386] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data Convention 108, *Guidelines on Children's Data Protecion in an Education Setting* (Nov. 20, 2020), p. 3, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

[3387] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data Convention 108, *Guidelines on Children's Data Protecion in an Education Setting* (Nov. 20, 2020), p. 4, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

[3388] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data Convention 108, *Guidelines on Children's Data Protecion in an Education Setting* (Nov. 20, 2020), p. 5, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

[3389] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data Convention 108, *Guidelines on Children's Data Protecion in an Education Setting* (Nov. 20, 2020), p. 8, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

of the child or if there is an overriding public interest, on the condition that appropriate safeguards are provided for by law"[3390] "The Guidelines on artificial intelligence and data protection should be followed in educational settings, with regard to the automatic processing of personal data to ensure that AI applications do not undermine the human dignity, the human rights and fundamental freedoms of every child whether as an individual, or as communities, in particular with regard to the right to non-discrimination."[3391]

"Recognising that legislation on educational settings and other domestic and international law have an impact on how the data protection rules are applied, including the rights of data subjects, educational institutions need strong legislative frameworks and Codes of Practice to empower staff, and to give clarity to companies to know what is permitted and what is not, when processing children's data in the context of educational activities, creating a fair playing field for everyone. Policy makers and practitioners, including legislators, supervisory authorities in accordance with Article 15 (2)(e) of the Convention 108+, educational authorities and industry should follow and promote these Guidelines and implement measures to meet data protection and privacy obligations."[3392]

In September 2022, the United Nations Educational, Scientific and Cultural Organization (UNESCO) released the Report "K-12 AI curricula: A mapping of government-endorsed AI curricula", which sought to investigate "current practices of developing and implementing AI curricula in primary and secondary school education from a global perspective."[3393] Portugal was among the countries identified as having developed specific

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[3390] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data Convention 108, *Guidelines on Children's Data Protecion in an Education Setting* (Nov. 20, 2020), p. 19, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

[3391] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data Convention 108, *Guidelines on Children's Data Protecion in an Education Setting* (Nov. 20, 2020), p. 19, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

[3392] Council of Europe Consultative Committee of the Convention for the Protection of individuals with regard to automatic processing of personal data Convention 108, *Guidelines on Children's Data Protecion in an Education Setting* (Nov. 20, 2020), p. 4, https://rm.coe.int/t-pd-2019-6bisrev5-eng-guidelines-education-setting-plenary-clean-2790/1680a07f2b

[3393] United Nations Educational, Scientific and Cultural Organization (UNESCO), *K-12 AI curricula: a mapping of government-endorsed AI curricula* (Sep. 2022), p. 6, https://unesdoc.unesco.org/ark:/48223/pf0000380602,

AI curricula for the purpose of enabling citizens to "recognize AI in their environments, understand its benefits and potential challenges, and be empowered to advocate for safe, beneficial and transparent AI technologies."[3394] In this regard, the representative for Portugal stated, "We have a clear vision of the impact of technology in the future, and the need for a workforce and citizens who relate to technology in a healthy way on a daily basis. This includes the concepts, awareness, and skills to improve these areas, work with machines, and see robotics as complementary to society. This is the big picture."[3395]

Use of AI in the Health Sector

The 2019 Health Data Strategy "sets out the vision, key areas and principles for secondary use of data, advanced analytics and artificial intelligence to improve the Portuguese population´s health."[3396] One of the key areas identified in the Strategy concerns the legal and ethical framework that should apply to the use of a data-driven national health service. "To ensure the best possible ethical framework for secondary use of data and sustainable AI, our strategy endorses strong commitment to the foundational values of the NHS and the rule of law, as well as to the ethical principles set out in the European Commission "Ethics Guidelines for trustworthy AI.""[3397]

"The positive impact that big data and AI systems already have and will continue having, both in public health and healthcare must ensure that the risks and other adverse impacts with which these technologies are associated are properly and proportionately handled. Citizens and health professionals will only have confidence in information and technology development and its applications if a clear and comprehensive framework for achieving trustworthiness is in place."[3398] It is further stressed that:

[3394] United Nations Educational, Scientific and Cultural Organization (UNESCO), *K-12 AI curricula: a mapping of government-endorsed AI curricula*, p. 22.

[3395] United Nations Educational, Scientific and Cultural Organization (UNESCO), *K-12 AI curricula: a mapping of government-endorsed AI curricula*, p. 22.

[3396] Shared Services of the Ministry of Health (SPMS), Advanced Analytics and Intelligence Unit Information Systems Department, *From Big Data To Smart Heatlh, Putting Data To Work For The Public's Health* (Dec. 2019), p. 4, https://www.spms.min-saude.pt/wp-content/uploads/2020/07/Data-Strategy_VERSAOFINAL_07.01.2020.pdf

[3397] Shared Services of the Ministry of Health (SPMS), Advanced Analytics and Intelligence Unit Information Systems Department, *From Big Data To Smart Heatlh, Putting Data To Work For The Public's Health*, p. 18.

[3398] Shared Services of the Ministry of Health (SPMS), Advanced Analytics and Intelligence Unit Information Systems Department, *From Big Data To Smart Heatlh, Putting Data To Work For The Public's Health*, p. 18.

"Trustworthy secondary use of data and AI must ensure compliance with all applicable laws and regulations, ethical principles and values and robustness both from a technical and social perspective. Development, deployment and use of health information technologies and AI systems must be made in a way that adheres to ethical principles (respect for human autonomy, prevention of harm, fairness and explicability); pays attention to situations involving more vulnerable groups such as children, persons with disabilities and others at risk of exclusion; and acknowledges that these systems pose risks that may be difficult to measure or anticipate".[3399]

The Strategy also foresees the creation of an internal Health Information and Technology Ethics Board to ensure accountability with these principles and frameworks.[3400] The Strategy provides that "accountability frameworks, including disclaimers as well as review and redress mechanisms should be facilitated by traceability and auditability procedures, particularly when dealing with AI systems in critical contexts or situations."[3401] Such a Board however has not yet been created.

Use of AI in Labor Relations

The 2022 Green Paper points out ways "to use artificial intelligence to minimize new risks, ensuring privacy and data protection, and also to take advantage of new technologies as a way of eliminating bureaucracy and ensuring greater effectiveness in the relationship between the State and citizens and businesses."[3402]

The document comments on risks involved in the use of AI in the labour market, noting, for instance, that "AI is also expected to impact more strongly on social groups such as young people and women, since the risk of automation is higher among jobs performed by these groups. Moreover, women are under-represented in the STEM professional fields and AI can reinforce algorithmic gender bias and discrimination, especially if the

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[3399] Shared Services of the Ministry of Health (SPMS), Advanced Analytics and Intelligence Unit Information Systems Department, *From Big Data To Smart Heatlh, Putting Data To Work For The Public's Health*, p. 18.

[3400] Shared Services of the Ministry of Health (SPMS), Advanced Analytics and Intelligence Unit Information Systems Department, *From Big Data To Smart Heatlh, Putting Data To Work For The Public's Health*, p. 18.

[3401] Shared Services of the Ministry of Health (SPMS), Advanced Analytics and Intelligence Unit Information Systems Department, *From Big Data To Smart Heatlh, Putting Data To Work For The Public's Health*, p. 18.

[3402] Gabinete de Estratégia e Planejamento (GEP) and Instituto do Emprego e Formação Profissional (IEFP), *Green Paper on the future of work 2021* (Mar. 2022), p. 10, http://www.gep.mtsss.gov.pt/documents/10182/79392/livro_verde_do_trabalho_2021_E N.pdf/7e63e982-8a4e-45a1-bc0c-ad707fbbe1b2

machine learning teams that define how the algorithm works are not more diverse in terms of socio-economics, gender and ethnicity."[3403]

"The lack of transparency and explanation about how the algorithms' decisions and predictions work can lead to the exclusion of jobseekers due to factors unrelated to the profile of the job to be filled. This can also lead to workers' insecurity. AI, by enabling the monitoring of workers' performance, can increase pressure on workers and increase stress regarding productivity and how bosses interpret information."[3404]

The Green Paper further acknowledges risks relating to automated management. "The use of algorithmic management has been on the rise and was strongly boosted with the COVID-19 pandemic through the use of remote working software that enables the collection and monitoring of work performance data. Although this type of algorithmic management has essentially emerged in the collaborative economy for work on digital platforms, as Adams-Prassl (2020) points out, it is now commonplace in various industries, and is used to support management in information gathering, information processing and worker control based on that gathered information, often in a non-transparent manner."[3405]

The Green Paper contains a section with guidelines for reflection on public policies for the future of work in Portugal. The guidelines concerning technological diversity, AI and algorithms include a recommendation to "regulate the use of algorithms in their different dimensions, so as to promote transparency and responsibility in their use, particularly in the context of employment relations."[3406] This is followed by a recommendation to "encourage, in particular, regulation of the use of algorithms in collective bargaining, involving social partners and ensuring that the issue is dealt with at the level of collective bargaining agreements, so as to ensure the appropriate adequacy of AI and to reflect the specific needs of each sector."[3407]

The Green Paper also includes a recommendation to "introduce provisions in legislation that minimise the new risks associated with

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[3403] Gabinete de Estratégia e Planejamento (GEP) and Instituto do Emprego e Formação Profissional (IEFP), *Green Paper on the future of work 2021*, pp. 77-78.
[3404] Gabinete de Estratégia e Planejamento (GEP) and Instituto do Emprego e Formação Profissional (IEFP), *Green Paper on the future of work 2021*, p. 78.
[3405] Gabinete de Estratégia e Planejamento (GEP) and Instituto do Emprego e Formação Profissional (IEFP), *Green Paper on the future of work 2021*, p. 78.
[3406] Gabinete de Estratégia e Planejamento (GEP) and Instituto do Emprego e Formação Profissional (IEFP), *Green Paper on the future of work 2021*, p. 169.
[3407] Gabinete de Estratégia e Planejamento (GEP) and Instituto do Emprego e Formação Profissional (IEFP), *Green Paper on the future of work 2021*, p. 169.

autonomous AI behaviour by setting requirements to ensure the protection of privacy and personal data, equality and non-discrimination (see specific points for further details), ethics, transparency and the explainability of algorithm-based systems, both in the selection of job applicants and in the performance of the work contract and the monitoring of the worker's professional activity."[3408]

Another recommendation seeks to "promote trusted AI by investing in infrastructure development, the integrated and regulated progress of the algorithmic bases of AI, improved use of public and industry data and the creation of data repositories."[3409]

Finally, the Green Paper recommends that Portugal "invest, in coordination with universities, research centers and other agents, in building the skills of the State and Public Administration in the use of AI and its potential, so as to ensure the existence of public competence centers and the capacity for adequate regulation and supervision of the use of AI in different domains, including the labour market; encourage the use of AI in the public sector, with full respect for the ethical principles that should underlie it (see point on Public Administration)."[3410]

Lethal Autonomous Weapons

During the 2019 Group of Governmental Experts ("GGE") meeting, Portugal's statement reaffirmed the need for human oversight of such weapons: "The development, use and/or transfer of this specific type of military or security technologies must always safeguard human control and supervision during the entire Lethal Autonomous Weapon Systems ("LAWS") life cycle. The human-machine interaction must be designed and programmed in such a way that ensures that the persons responsible for supervising the use of LAWS are fully accountable for the effects of that use and are able to immediately interrupt an initiated attack should they decide to do so. Therefore, in the autonomy spectrum, the degree of independence of weapons systems has to be limited."[3411]

[3408] Gabinete de Estratégia e Planejamento (GEP) and Instituto do Emprego e Formação Profissional (IEFP), *Green Paper on the future of work 2021*, pp. 169-170.

[3409] Gabinete de Estratégia e Planejamento (GEP) and Instituto do Emprego e Formação Profissional (IEFP), *Green Paper on the future of work 2021*, p. 170.

[3410] Gabinete de Estratégia e Planejamento (GEP) and Instituto do Emprego e Formação Profissional (IEFP), *Green Paper on the future of work 2021*, p. 170.

[3411] Portugal, CCW Group of Governmental Experts on Lethal Autonomous Weapons Systems, *Statement by Portugal* (Mar. 25, 2019), https://unoda-documents-library.s3.amazonaws.com/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_(2019)/PT%2B%2BStatement%2BGGE%2BLAWS%2B25MAR19.pdf, pp. 1-2.

Portugal proposed for the GGE to confer a mandate "to produce a reference document compiling existing norms and principles of International Law applicable to LAWS and identifying related good practices for producers, commanders and operators".[3412] This reference document " would be a useful and practical tool with a clarifying effect"[3413] for the purpose of future negotiations regarding a convention on LAWS.

In August 2020, at the request of the Chair of the 2020 GGE on Emerging Technologies in the Area of LAWS within the Convention on Certain Conventional Weapons ("CCW"), Portugal released commentaries on the operationalization of the 11 guiding principles on LAWS adopted at the 2019 Meeting of the High Contracting Parties to the CCW.[3414] Portugal's commentaries emphasize the need for a human-centred approach to LAWS. "Automation and artificial intelligence should be tools in assisting the human actors (enhancing human perception and human action) rather than being the (non-human) actors themselves – see our comment to Guiding Principle (i). The will and decision to use force must therefore always remain with a human being. Especially during the deployment phase, considering that no weapon is developed without defect or possibility of malfunction, its human users must be trained and able to quickly act in order to avoid or minimize the negative consequences of a malfunctioning LAWS. The use of force must be planned and executed in such a way that it can always be retraceable to the human being operating the machine, in order to prevent any accountability gaps for violations of international law – see our comment to Guiding Principle (d)."[3415]

Portugal was one of the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International

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[3412] Portugal, CCW Group of Governmental Experts on Lethal Autonomous Weapons Systems, *Statement by Portugal*, p. 2.

[3413] Portugal, CCW Group of Governmental Experts on Lethal Autonomous Weapons Systems, *Statement by Portugal*, p. 3.

[3414] Portugal, *Commentaries on "Operationalising all eleven guiding principles at a national level"* (Aug. 2020), https://documents.unoda.org/wp-content/uploads/2020/09/20200831-Portugal1.pdf.

[3415] Portugal, *Commentaries on "Operationalising all eleven guiding principles at a national level"*, pp. 2-3.

Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[3416]

In February 2023, Portugal participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Portugal endorsed a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[3417] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[3418]

Human Rights

According to Freedom House, Portugal is classified as "free", with a score of 95/100. Freedom House defines Portugal as "a stable parliamentary democracy with a multiparty political system and regular transfers of power between rival parties" in which "civil liberties are generally protected."[3419]

[3416] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[3417] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

[3418] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[3419] Freedom House, *Freedom in the World 2022 - Portugal*, https://freedomhouse.org/country/portugal/freedom-world/2022.

Portugal is party to the most important international legal instruments for the protection and defence of human rights.[3420]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[3421]

In May 2021, the Portuguese Parliament adopted the Portuguese Charter of Human Rights in the Digital Age ("Charter") with the aim of promoting the free exercise of human rights and social inclusion in the digital environment.[3422] Article 9 of the Charter concerns the use of AI and establishes that it "must be guided by respect to fundamental rights, ensuring a fair balance between the principles of explainability, security, transparency and accountability, taking into account the circumstances of each specific case and establishing procedures to avoid bias and discrimination."[3423] The Charter further establishes that "decisions with a significant impact on recipients that are taken by the use of algorithms must be communicated to interested parties, be appealable and appealable and auditable, as provided by law."[3424]

[3420] Ministry of Foreign Relations, *Human Rights*, https://portaldiplomatico.mne.gov.pt/en/foreign-policy/human-rights.

[3421] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (April 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[3422] Portuguese Parliament, Law No. 27/2021, *Portuguese Charter on Human Rights in the Digital Age* (*Carta Portuguesa de Direitos Humanos na Era Digital*) (17 May 2021), https://files.dre.pt/1s/2021/05/09500/0000500010.pdf.

[3423] *Portuguese Charter on Human Rights in the Digital Age,* Article 9(1) (unofficial translation).

[3424] *Portuguese Charter on Human Rights in the Digital Age*, Article 9(2) (unofficial translation).

OECD / G20 AI Principles

   Portugal is a member of the Organisation for Economic Co-operation and Development (OECD) and endorsed the OECD AI Principles.[3425] In 2021, the OECD Survey on the implementation of the OECD AI Principles also took note of the Portuguese policy approach to AI.[3426]

   Various Portuguese policy initiatives are inspired by and acknowledge the OECD AI Principles. This is the case of AI Portugal 2030, the AI Guide,[3427] or the SPMS Health Data Strategy.[3428]

   Portugal is not a member of the Global Partnership on AI, a multi-stakeholder initiative which aims to foster international cooperation on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[3429]

UNESCO Recommendation on the Ethics of Artificial Intelligence

   Portugal has endorsed the UNESCO Recommendations on AI, the first ever global agreement on the ethics of AI.[3430]

[3425] Organisation for Economic Co-operation and Development (OECD), *Forty-two countries adopt new OECD Principles on Artificial Intelligence* (May 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm#:~:text=The%20OECD's%2036%20member%20countries,on%20%E2%80%9CHarnessing%20the%20Digital%20Transition.

[3426] Organisation for Economic Co-operation and Development (OECD), *State of Implementation of the OECD AI Principles: Insights from National AI Policies* (Jun. 2021), https://www.oecd.org/digital/state-of-implementation-of-the-oecd-ai-principles-1cd40c44-en.htm, p. 31.

[3427] Agência para a Modernização Administrativa (AMA), *GuIA para a Inteligência Artificial Ética, Transparente e Responsável na Administração Pública* (Feb. 2022), p. 21, https://tic.gov.pt/documents/37177/293193/GuIA+Respons%C3%A1vel+para+a+IA+na+AP.pdf/9bc6b247-ffbb-6c3c-4b7c-7f7dc579525f.

[3428] Shared Services of the Ministry of Health (SPMS), Advanced Analytics and Intelligence Unit Information Systems Department, *From Big Data To Smart Heatlh, Putting Data To Work For The Public's Health* (Dec. 2019), p. 4, https://www.spms.min-saude.pt/wp-content/uploads/2020/07/Data-Strategy_VERSAOFINAL_07.01.2020.pdf

[3429] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/.

[3430] United Nations Educational, Scientific and Cultural Organization (UNESCO), *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (Nov. 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence.

Evaluation

Portugal's has adopted a policy approach to AI based on respect for human rights, democratic values and the rule of law. The AI Portugal 2030, as well as documents released by different government entities, acknowledge the risks posed by AI and the need for AI technologies to take fairness, transparency and accountability into account. The Portuguese data protection has been taking an active role in identifying and intervening in situations in which the use of AI brings a risk to human rights. Portugal however is not a member of the Global Partnership on AI and it remains to be seen how its endorsement of the UNESCO Recommendation on the Ethics of AI will translate in practice.

Qatar

National AI Strategy

The Government of Qatar released a National Strategy for AI on October 2019. The aim of the strategy is to provide a realistic view of AI technologies and their potential in the 21st century. The strategy was developed from a blueprint produced by Qatar Computing Research Institute (QCRI), part of Hamad Bin Khalifa University (HBKU).[3431]

The AI strategy sets two roles for Qatar:[3432]

(1) Qatar must become capable of producing world-class AI applications in areas of national interest and have a business environment enabling the use of AI as a driver for innovation.

(2) Qatar must be an efficient consumer of AI, with a properly educated citizenry, sound laws, and ethical guidelines.

Actions for the government to perform these two roles include reforms in the academic and experiential K-12 curriculum, as the foundation for the development of AI in the future. Proposed actions include the design of apprenticeship pathways (e.g. AI-based medicine), the promotion of start-ups for innovative AI applications, the formulation of policies to develop local AI solutions, and the formulation of strategies to attract international talent.

The AI strategy is divided into six pillars:[3433]

- Pillar 1: Race for Talent in the AI+x era
- Pillar 2: Data Access is Paramount (Data and Computing Infrastructure)
- Pillar 3: The Changing Landscape of Employment (AI Augmented Jobs)
- Pillar 4: New Business and Economic Opportunities (Knowledge Economy)
- Pillar 5: Qatar – AI + X Focus areas

[3431] HBKU, *Minister of Transport and Communications Announces Qatar's National Artificial Intelligence Strategy Developed by HBKU's Qatar Computing Research Institute* (Oct 19, 2019), https://www.hbku.edu.qa/en/news/qitcom-qcri-hbku

[3432] Ministry of Communications and Information Technology, *National Artificial Intelligence Strategy for Qatar,* (2019). https://hukoomi.gov.qa/assets/documents/AI%20Strategy_EN.pdf

[3433] Ashraf Aboulnaga et al., 64(4) *Communications of the ACM* 59-61 (2021); See also *an AI-Enabled Future for Qatar and the Region*, CACM (Apr. 2021), https://cacm.acm.org/magazines/2021/4/251345-an-ai-enabled-future-for-qatar-and-the-region/fulltext

- Pillar 6: Ethics and Public Policy.

Each pillar features components to build an inclusive AI framework. Pillar 6 on Ethics and Public Policy includes recommendations for the introduction of guidelines for Explainability and interpretability of decisions made by AI algorithms, the formulation of an AI Ethics and Governance framework, and enhancing the guidelines on privacy and data sharing. Critical to this pillar is the consistency of the framework with "Qatari social, cultural and religious norms and international guidelines."[3434]

Qatar announced the creation of an artificial intelligence (AI) committee[3435] to ensure that the National AI Strategy is implemented with proper mechanisms and oversight. The country's Cabinet approved the draft decision on March 3, 2019 and set a committee to be under Transport & Communications Ministry (MoTC). Members of the Committee include MoTC representatives, representatives from Ministry of Interior, Ministry of Education & Higher Education, Ministry of Commerce and Industry, Hamad bin Khalifa University, Qatar National Research Fund, and Qatar Development Bank.

The task of the AI committee is to supervise all the State-led AI-centric programs and initiatives and act as a connecting bridge between the ministries and relevant authorities in developing plans and programs "for preparing human cadres in the field of artificial intelligence applications." The first AI committee meeting took place in November 2022[3436] to evaluate best practice cases and discuss aspects of AI ethics. The Committee agreed to develop an implementation plan at the national level, including a roadmap that involves all relevant country authorities.

The national AI strategy is aligned with the four pillars of the Qatar National Vision (QNV) 2030: economic, social, human, and environmental development.[3437]

1. Economic growth through the emergence of new fields and industries

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[3434] Hukoomi, *Qatar's National Artificial Intelligence Strategy* (Oct. 26, 2022), https://hukoomi.gov.qa/en/article/qatars-national-artificial-intelligence-strategy

[3435] Hukoomi, Cabinet approves draft decision setting up Artificial Intelligence Committee (Mar. 4, 2021), https://hukoomi.gov.qa/en/news/cabinet-approves-draft-decision-setting-up-artificial-intelligence-committee

[3436] Ministry of Communications and Information Technology, *The Artificial Intelligence Committee Holds its First Meeting* (Nov. 20, 2022), https://mcit.gov.qa/en/media-center/news/artificial-intelligence-committee-holds-its-first-meeting

[3437] General Secretariat for Development Planning, *Qatar National Vision 2030 QNV* (Jul. 2008), https://www.gco.gov.qa/wp-content/uploads/2016/09/GCO-QNV-English.pdf

2. Social progress through efficient governance, effective management of resources, improved discourse, and better understanding
3. Environmental sustainability through the proper understanding of natural systems and impact
4. Protection and promotion of cultural heritage through initiatives such as Arabic-language translation

Public Participation

Qatar's National Development Strategy has set goals of developing modern public sector institutions, efficient and transparent delivery of services and larger space for civil society.[3438] Relatedly, the national Digital Government 2020 strategy identifies open government as a key strategic objective, and recognizes Open Data, e-Participation, and related policies as key initiatives.[3439] The Open Data Policy of 2014 requires government agencies to ensure that their data is published using an open format both technically and legally.

Qatar has enhanced the GaaS (Government as a service) initiatives, with an array of citizen Digital Government services such as Metrash, Hukoomi, Baladiya/Oun. These applications aim to facilitate Inter/Intra Government Departmental transfer of data to create a modern and efficient public sector. There are 1,400 Hukoomi Services, with 650 services that aim to show higher efficiency, transparency, and openness of the government.[3440] This degree of interaction garnered Qatar the 2018 United Nations e-Gov benchmark as a 'high level of interaction index.'[3441]

Data Protection

The Ministry of Transport and Communications (MOTC) is the authority designated in Article 20 of Decree-Law No 8 of 2016 to propose legislation, policies, and standards necessary to regulate government information technology systems, transactions, and services to enable government agencies to achieve their digital transformation objectives.

[3438] General Society for Development Planning. *Qatar's Second National Development Strategy 2018-2022, https://www.psa.gov.qa/en/knowledge/Documents/NDS2Final.pdf*
[3439] Ministry of Information and Communication Technology. *Qatar e-Government 2020 Strategy* (2020), https://hukoomi.gov.qa/assets/documents/qatar-e-government-2020-strategy-executive-summary-english.pdf
[3440] Thales Group, *Hukoomi: eGovernment services in Qatar, https://www.thalesgroup.com/en/markets/digital-identity-and-security/government/customer-cases/qatar-egov*
[3441] United Nations, *E-government survey 2018* (2018), https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2018-Survey/E-Government%20Survey%202018_FINAL%20for%20web.pdf

Qatar adopted the Law No. (13) of 2016 Concerning Personal Data Protection ("the Data Protection Law").[3442] Qatar became the first Gulf Cooperation Council (GCC) member state to issue an applicable Data Protection Law, supplemented with a set of regulatory guidelines issued by the Compliance and Data Protection Department. The guidelines incorporate concepts from EU data protection legal frameworks providing further clarity for compliance purposes. As of 2022, the MOTC has released 14 guidelines, which have effectively updated the initial Law.

The Data Protection Law (DPL) defines the rights of individuals to the processing of their data within "the framework of transparency, honesty, and respect of human dignity?"[3443] Chapter 4 establishes special permissions required to process Personal Data of Special Nature, namely ethnic origin, children, health, physical or psychological condition, religious creeds marital relations, and criminal offenses.

The latest guidelines of the DPL include provisions about automated decision-making processes, and the need to perform Data Protection Impact Assessments (DPIA) to identify risks associated with the processing of personal data. Fines of US$ 275,000 are levied if data controllers do not comply with the DPIA.[3444] Data Protection Regulations aligned with the GDPR were issued by Qatar Financial Center, Qatar Minister of Commerce and Industry, upon a public consultation in 2021.[3445] The regulations address the right of individuals "not to be subjected to a decision that is based solely on automated processing."

Algorithmic Transparency

The Technical Office of the Ministry of Labour of Qatar announced on February 6, 2023, the use of data algorithms in job localizations, as an initiative supported by United Nations Economic and Social Commission

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[3442] Compliance and Protection Department, *Law No. 13 of 2016, Personal Data Privacy protection* (2016), https://compliance.qcert.org/sites/default/files/library/2020-11/Law%20No.%20%2813%29%20of%202016%20%20on%20Protecting%20Personal%20Data%20Privacy%20-%20English.pdf

[3443] Ibid. Chapter Two.

[3444] Data Guidance. *Qatar: QFC Updates its data protection law in line with the GDPR* (Mar. 2022), https://www.dataguidance.com/opinion/qatar-qfc-updates-its-data-protection-law-line-gdpr

[3445] Data Guidance, *Qatar: QFC Updates its data protection law in line with the GDPR* (Mar. 2022), https://www.dataguidance.com/opinion/qatar-qfc-updates-its-data-protection-law-line-gdpr

for Western Asia (UN ESCWA),[3446] and two corporate partners. The algorithm "automatically recommends Qatari employee percentage given the firms' absorptive capacity,"[3447] tailoring the nationalization % based on the capital, number of employees, average salaries, and the entity's activity. The algorithm provides recommendations of up-skilling suggestions for candidates and develops statistics. The support of ESCWA to the Ministry of Labor and the Digital Transformation Unit includes creating the model, based on ESCWA's Skills Monitor.[3448] There is no disclosure about the specifics of the model and the extent of the complexity, accuracy or reliability of the algorithm.

AI Research & Development

Qatar has one of highest per capita GDP in the world, the third-largest reserves of natural gas, and is the largest exporter of liquefied natural gas.[3449] The Qatari government has set a national vision to transform the country into a knowledge economy by 2030, engaging in projects, partnerships, and initiatives to diversify the economy beyond oil & gas.

The Qatar Center for Artificial Intelligence (QCAI) is an enabler of the Qatar National Vision 2030 and the National AI Strategy with QCAI has a mission to "create and promote cutting-edge AI innovation for the betterment of human society."[3450] QCAI's role is to advise Qatar's leadership on the potential of AI to secure the State's economic and strategic future. One key objective of QCAI is to establish a policy center to coordinate programs and initiatives.

The country has taken steps to become a worldwide innovation center by 2030 and a technical hub for business, transitioning to a digital economy centered on cloud services and data processing. The Qatar Computing Research Institute (QCRI) is engaged in discussions with experts from United Nations Development Program (UNDP), UN International Children's Emergency (Unicef), and the UN Economic and

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[3446] UNESCWA, *Building national capacities on big data policies and applications in Qatar* (Dec. 14, 2021), https://www.unescwa.org/news/building-national-capacities-big-data-policies-and-applications-qatar

[3447] Ministry of Labor Qatar, *The job localization program data algorithm contributes to the access to private functions,* https://twitter.com/MOLQTR/status/1622548471231270912

[3448] Doha Directory, *Electronic System based on AI Launched; aims to develop data related to the nationalization program in the private sector* (Feb. 7, 2023), https://www.doha.directory/electronic-system-based-on-ai-launched-aims-to-develop-data-related-to-the-nationalization-program-in-the-private-sector/1052/n

[3449] CIA. *Qatar.* (Feb 7, 2023). https://www.cia.gov/the-world-factbook/countries/qatar/

[3450] Qatar Computing Research Institute (QCRI), *Our Vision and Mission* (2023), https://qcai-blog.qcri.org/index.php/our-vision-mission/

Social Commission for Western Asia (UN-ESCWA) surrounding the use of AI in monitoring and achieving sustainable development goals (SDGs).

The Government of Qatar has set a focus on Sustainability and conducted a Voluntary National Review in 2021.[3451] Highlighted in the report as achievement of the country is Qatar's National Artificial Intelligence Strategy, alongside Qatar Science & Technology Park (QSTP), Qatar National Research Fund (QNRF), Qatar Research, Development and Innovation Strategy (2030), Qatar University Research, and Hamad Medical Corporation Research.

Facial Recognition

Qatar used AI to manage aspects of the FIFA World Cup such as crowds and control stadium conditions (i.e. temperature).[3452] The "connected stadium" concept implemented during the event[3453] included facial recognition receiving input from 22,000 security cameras installed at FIFA World Cup stadiums. Data was set to predict crowd patterns based on the movement of people. All people attending the FIFA World Cup in Qatar were required to download the Hayya app[3454] to enter stadiums and use public transportation. The system was complemented by experts in cybersecurity, counterterrorism, and transportation, to guarantee a seamless flow of crowds.

[3451] United Nations, *Qatar's Voluntary Review* (2021), https://sustainabledevelopment.un.org/content/documents/280362021_VNR_Report_Qatar_English.pdf

[3452] Osama Bin Javaid, *AI at World Cup 2022 to check crowds, control climate*, Al Jazeera (Nov. 13, 2022), https://www.aljazeera.com/news/2022/11/13/eye-in-the-sky-ai-at-world-cup-to-check-crowds-control-climate#:~:text=With%20more%20than%201.2%20million,and%20even%20control%20stadium%20temperature

[3453] Hazar Kilani, *Artificial Intelligence to help control crowds and climate at Qatar World Cup,* Doha News (Nov. 15, 2022), https://dohanews.co/artificial-intelligence-to-help-control-crowds-and-climate-at-qatar-world-cup/#:~:text=A%20one%2Dof%2Da%2D,regulate%20stadium%20temperatures%2C%20reported%20Aljazeera

[3454] Al Jazeera. *What is a Hayya card and why do you need it for World Cup 2022? Qatar World Cup 2022 News*, https://www.aljazeera.com/sports/2022/10/26/no-hayya-no-entry-fifa-world-cup-2022

Biometric Identification

In 2007, Qatar rolled out biometric-enabled national ID cards and developed an ambitious digital government program.[3455] In 2011, the Ministry of Interior introduced smart card services for expatriates[3456]. These smart cards are of compulsory use as e-gate cards, storing biometric data (e.g. fingerprints and eye scan) on a chip. Residents can also use the smart cards for immigration control. Relevant information is protected under the Data Protection Law.

Human Rights

Qatar has endorsed the Universal Declaration of Human Rights (UDHR). Qatar is signatory to the International Covenant on Civil and Political Rights (ICCPR) and International Covenant on Economic, Social and Cultural Rights (ICESCR) (2018).[3457]

According to Freedom House Qatar is rated "Not Free.", with a score of 25/100. The report highlights "While Qatari citizens are among the wealthiest in the world, the vast majority of the population consists of noncitizens with no political rights, few civil liberties, and limited access to economic opportunity."[3458]

The Qatar Constitution is based on the Sharia Law. The substantive list of rights (or protections) reside in Part 3: Public Rights and Duties, including equality of citizens in rights and duties (Art. 34); equality of "all persons" before the law and without discrimination "whatsoever" on "grounds of sex, race, language or religion" (Art. 35); protection against unlawful arrest or detention (Art. 36); protection of privacy (Art. 37); the right to elect and be elected (Art. 42); the right of assembly (Art. 44) and of association (Art. 45); freedom of expression (Art. 48); freedom of religion (Art. 50).[3459]

Media reports cite issues with human rights in Qatar, associated with deaths of migrant workers in the 10 years since Qatar was awarded World Cup

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[3455] Thales Group, *National ID cards in Qatar: from ID to digital government*, (2022) https://www.thalesgroup.com/en/markets/digital-identity-and-security/government/customer-cases/qatar-id

[3456] Ananda Shakespeare. *MEED. National Identity Card in Qatar* (June 5, 2014), https://www.meed.com/national-identity-card-in-qatar/

[3457] See Declaration by the State of Qatar, *32 INTERNATIONAL REVIEW OF THE RED CROSS 100–100* (1992).

[3458] Freedom House, *Freedom in the World — Qatar Country Report,* https://freedomhouse.org/country/qatar/freedom-world/2022

[3459] State of Qatar, *The Constitution,* (2004) https://www.gco.gov.qa/wp-content/uploads/2016/09/GCO-Constitution-English.pdf

hosting rights.[3460] Qatar has taken steps in passing laws to protect migrant workers, including adjustments in their minimum wage and living conditions.[3461]

The World Bank's Doing Business project, which also makes projections on the Strength of legal rights index (0=weak to 12=strong), scored Qatar as 1.[3462] Qatar's international cooperation with multilateral entities (i.e. UNESCO, UN Development Programmes, World Bank, and others) are set to support the country in "measur[ing] progress towards the national and international development goals, human rights protection, transparency and the fight against corruption.[3463]

OECD / G20 AI Principles

Qatar is not a member of the OECD and did not endorse the OECD AI principles.[3464] The country has not submitted reports to OECD AI Observatory on AI initiatives.[3465]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Qatar is a member state of UNESCO since 1972,[3466] and was one of the 193 countries that endorsed the UNESCO recommendation on the Ethics of AI.[3467] It remains to be seen which steps Qatar will take to honor its commitments.

Evaluation

Qatar is a forward-looking nation with a digital transformation agenda, to propel economic development and sustainability and build a path

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[3460] The Guardian, *Revealed: 6,500 migrant workers have died in Qatar since World Cup awarded* (Feb. 23, 2021), https://www.theguardian.com/global-development/2021/feb/23/revealed-migrant-worker-deaths-qatar-fifa-world-cup-2022

[3461] Amnesty International, *Qatar: New laws to protect migrant workers are a step in the right direction* (2022), https://www.amnesty.org/en/latest/news/2020/08/qatar-annoucement-kafala-reforms/

[3462] World Bank, *Data: Qatar, Strength of legal rights index (0=weak to 12=strong),* https://data.worldbank.org/indicator/IC.LGL.CRED.XQ?locations=QA

[3463] General Society for Development Planning, *Qatar's Second National Development Strategy 2018-2022,* https://www.psa.gov.qa/en/knowledge/Documents/NDS2Final.pdf

[3464] OECD, *Forty-two countries adopt new OECD Principles on Artificial intelligence* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[3465] OECD.AI, *Country Dashboards and Data* (2023), https://oecd.ai/en/

[3466] UNESCO, *Member States: Qatar* (2023), https://www.unesco.org/en/countries/qa

[3467] UNESCO, *UNESCO Member States Adopt the First Ever Global Agreement on the Ethics of Artificial Intelligence* (Apr. 21, 2022) https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence

toward a knowledge-based economy. The formulation of the national AI strategy positions Qatar in a leading space in the Gulf region. Qatar's endorsement of the UNESCO Recommendation on the Ethics of AI might provide the country with an opportunity to develop a trustworthy AI approach to policy developments in the field. The recent establishment of the AI Committee is a promising step in the efforts of Qatar to include civil society in policy decisions, yet there still needs to be an established process for meaningful public participation in the formulation of AI policy. The enactment of the Data Protection Law (DPL) of 2016 signals the commitment of the country to develop data governance rules which needs to be furthered by a commitment to algorithmic transparency sustained by an independent supervisory authority. This is of particular relevance in view of the use of AI for surveillance purposes.

Russia

National AI Strategy

Russian president Vladimir Putin famously said, in a 2017 address to students in Moscow, "Artificial intelligence is the future not only of Russia but of all of mankind. There are huge opportunities, but also threats that are difficult to foresee today. Whoever becomes the leader in this sphere will become the ruler of the world."[3468] Putin then stated that it is better to avoid a monopoly on the sector and promised that if Russia became the leader in developing AI, then Russia will share their technology with the rest of the world, just as they share their atomic and nuclear technology today.

Russia's national strategy for Artificial Intelligence (AI) was announced in October 2019.[3469] This strategy defines the goals and primary objectives of the development of artificial intelligence in the Russian Federation, as well as the measures aimed at its use for the purpose of protecting national interests and implementing strategic national priorities, including those in the field of scientific and technological development.

The goals of the development of AI in the Russian Federation include the improvement of the well-being and quality of life of its population, national security and rule of law, and sustainable competitiveness of the Russian economy, including leading positions the world over in the field of AI. The primary objectives of the Russian development of AI are to support scientific AI research, engineering AI software development, data quality, hardware availability, qualified personnel and integrated system to extend Russian artificial intelligence technology market.[3470]

In the strategy, the basic principles of the development and use of artificial intelligence technologies include the protection of human rights and liberties, security, transparency, technological sovereignty, innovation cycle integrity, reasonable thrift, and support for competition in the field of artificial intelligence.

[3468] CNN, *Who Vladimir Putin thinks will rule the world* (Sept. 2, 2017), Who Vladimir Putin thinks will rule the world
[3469] *Decree of the President of the Russian Federation on the Development of Artificial Intelligence in the Russian Federation* (Oct. 10, 2019), https://cset.georgetown.edu/wp-content/uploads/Decree-of-the-President-of-the-Russian-Federation-on-the-Development-of-Artificial-Intelligence-in-the-Russian-Federation-.pdf
http://www.kremlin.ru/acts/bank/44731 (in Russian)
[3470] *Ibid*

The use of AI technologies in sectors of the economy supports the efficiency of planning, forecasting, and management decision-making processes; the automation of routine production operations; the use of self-contained intelligent equipment, robotic systems, and intelligent logistic management systems; the improvement of employee safety during the performance of business processes; an increase in the loyalty and satisfaction of customers, and; the optimization of the personnel selection and training processes.[3471]

The use of AI technologies in the social sphere facilitates the creation of conditions that favor the improvement of the standard of living of the population including an increase in the quality of healthcare services; the improvement of the quality of education services, and; the improvement of the quality of the provision of public and municipal services, as well as the reduction of the cost of their provision.[3472]

Digital Economy in Russia

Russian government has put high priority and already achieved some remarkable accomplishments in the Digital Transformation. A key strategic objective formulated by its leadership in the May 2018 Presidential Decree (The Decree on the National Goals and Strategic National Development Tasks of the Russian Federation until 2024)[3473] is that policymakers must build on the country's traditional industrial strengths, develop new technology processes for fast implementation in all the main competitive domains and continuously tackle any obstacles.[3474]

Due to limitations on funding related to COVID-19 and sanctions, the funding available for development of AI projects continues to be reduced. Moreover, the findings of 2021 research suggest that Russia's AI strategy has in many ways been stifled by the country's poor climate for innovation and investment, as well as budget cuts due to COVID-19.[3475]

[3471] *Ibid*

[3472] *Ibid*

[3473] The President signed Executive Order on National Goals and Strategic Objectives of the Russian Federation through to 2024,
http://en.kremlin.ru/events/president/news/57425

[3474] World Bank Group, *Competing in Digital Age: Policy Implications for the Russian Federation* (Sept. 2018),
http://documents1.worldbank.org/curated/en/860291539115402187/pdf/Competing-in-the-Digital-Age-Policy-Implications-for-the-Russian-Federation-Russia-Digital-Economy-Report.pdf

[3475] Stephanie Petrella, Chris Miller, Benjamin Cooper, *Russia's Artificial Intelligence Strategy: The Role of State-Owned Firms, Orbis, Volume 65, Issue 1, 2021, Pages 75-100, ISSN 0030-4387,* https://doi.org/10.1016/j.orbis.2020.11.004
(https://www.sciencedirect.com/science/article/pii/S0030438720300648)

Furthermore, as announced by IntelliNews in 2023 military invasion of Ukraine caused Russia to slash its support for the development of AI technologies more than 10-fold.[3476]

AI Strategy for Russian start-up

Russia aims to increase the start-up ecosystem and many companies have been helped by the traditional hard science education in the country.[3477] This report breaks down the importance of Artificial Intelligence in Russian startups, with a large number of startups active in AI. At the same time, the war with Ukraine has had a dramatic effect on the Russian IT industry. It has led to many IT professionals to leave the country, thus impacting the AI industry in the country.[3478]

AI Policy in Russia

In January 2019, Russian President Vladimir Putin had approved a list of instructions[3479] following the meeting of the supervisory board of the Agency for Strategic Initiatives, which included the instruction to the Russian government to create a national AI strategy. A draft version of a national AI strategy, developed by the country's largest bank – Sberbank, was announced September 2019.[3480]

According to the Future of Life Institute,[3481] several projects helped pave the way for a domestic approach throughout 2018. In March 2018, for example, a conference was organised by the Russian Defense Ministry, Education and Science Ministry and the Academy for Science on AI issues and alternatives and a 10-point AI development plan in Russia was subsequently published. The plan involves the establishment of an AI and

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[3476] IntelliNews, *Russia to slash AI development support* (Jan.19, 2023), https://www.intellinews.com/russia-to-slash-ai-development-support-267359/?source=russia

[3477] GMIS, *Artificial Intelligence: A Strategy for Russian start-up* (June 11, 2019), https://cms-files.gmisummit.com/static/pdf/49b5cf7a114d5c6871f90c099ffa8258

[3478] Wachs, Johannes, *Digital Traces of Brain Drain: Developers during the Russian Invasion of Ukraine* (September 2, 2022) https://arxiv.org/pdf/2209.01041.pdf
Tadviser, *Labor market in Russia (IT and telecom)* (January. 13, 2021), https://tadviser.com/index.php/Article:Labor_market_in_Russia_(IT_and_telecom)#Due_to_mobilization.2C_at_least_100_thousand_IT_specialists_may_leave_Russia

[3479] List of instructions following the meeting of the Supervisory Board of the Agency for Strategic Initiatives [GT], http://kremlin.ru/acts/assignments/orders/59758

[3480] Defense One, *Sneak Preview: First draft of Russia's AI strategy* (Sept.19, 2019), https://www.defenseone.com/technology/2019/09/whats-russias-national-ai-strategy/159740/

[3481] Future of Life, *AI Policy – Russia* (Feb. 2020), https://futureoflife.org/ai-policy-russia/

Big Data Consortium among academic and industrial organisations; The development of a fund to assist provide knowledge on automated systems; Increased state aid to AI education and training; The establishment of an AI laboratory at the leading technological university; The establishment of a national AI R&D center.

On April 1, 2020, Russia adopted new law - No. 123-FZ[3482], that was meant to regulate the conditions for developing and implementing AI technologies, though an amendment to the bill disallows foreign firms from applying to participate in the experimental regime, in addition to Russian firms whose share of participating in foreign legal entities registered in offshore zones amounts to 50 percent or more.[3483]

Russia is developing AI regulation in the fields of autonomous vehicles and healthcare. In the area of autonomous vehicles, the Russian Government issued a regulation on highly automated vehicles on public roads in 2018 to allow the testing of autonomous vehicles.[3484] In 2020, Russia adopted the concept of road safety with autonomous vehicles on public roads and in 2021, the Russian government issued a set of measures for the testing of highly automated vehicles on public roads.[3485] In the area of healthcare, Russia established Rules for registering AI systems as medical software devices to simplify AI system registration procedures.[3486]

Russian Government supports the initiative on autonomous vehicle development. In October 2022 Russian Government adopted regulation No. 1849[3487] on "On establishing an experimental legal regime in the field of

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[3482] Official Internet Portal of Legal Information, *Federal Law of 24.04.2020 № 123-FZ* (Apr. 24, 2020)
https://cis-legislation.com/document.fwx?rgn=124089 (unofficial translation in English)
http://publication.pravo.gov.ru/Document/View/0001202004240030 (in Russian)
[3483] CAN, *Artificial Intelligence in Russia, issue 7, page 2* (July 31, 2020),
https://www.cna.org/archive/CNA_Files/centers/cna/sppp/rsp/newsletter/dop-2020-u-027701-final2.pdf
[3484] Library of Congress, *Russia: Government Begins Testing Driverless Cars* (Jan.18, 2019), *https://www.loc.gov/item/global-legal-monitor/2019-01-18/russia-government-begins-testing-driverless-cars/*
[3485] Russia Briefing, *Russia To Road-Test Driverless Vehicles 2021-2024* (March 16, 2021), https://www.russia-briefing.com/news/russia-to-road-test-driverless-vehicles-2021-2024.html/
[3486] WEBIOMED, *On the rules for registering software as a medical device in Russia* (Oct. 02, 2020), https://webiomed.ru/en/blog/on-the-rules-for-registering-software-as-a-medical-device-in-russia/
[3487] Official Internet Portal of Legal Information, *Regulation No. 1849 of Russian Government* (Oct. 17, 2022),
https://cis-legislation.com/document.fwx?rgn=145114 (unofficial Translation in English),

digital innovation and approval of the Program of experimental legal regime in the field of digital innovation for the operation of highly automated vehicles for the implementation of the initiative "Unmanned logistics corridors" on the public highway of federal importance M-11 "Neva"". The regulation provides definition of Automatic driven system, Automatic control mode and Unmanned Cargo Transportation; establishes procedures and requirements for operators of vehicles, describes risks.[3488]

Digital Rights Law and AI Regulation

According to the OECD, Russia's Digital Rights Law, which came into force in October 2019 and introduced several new legal concepts, including digital rights, e-transactions, smart contracts, and big data.[3489] The law aimed to enable the development of an efficient legal framework of digital economy in Russia, reflecting current digital technologies and challenges including big data and AI.

Russia's draft legal framework AI Technologies and Robotics aims to establish a legal framework for the development of AI technologies and robotics in Russia and eliminate excessive legal barriers. The initiative aims to give guidance for regulators and is under the responsibility of the Ministry of Economic Development.[3490]

Considering that AI technology is mainly used by state authority in Russia as a means of digital authoritarianism, the new initiative on the development of AI technology for the public authority needs to be drafted. Thus, in October 2022 the Russian State Duma passed a bill regulating the development of artificial intelligence and information technologies by means of concession agreements and agreements on public-private and municipal-private partnership.[3491]

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http://publication.pravo.gov.ru/Document/View/0001202210200037?index=0&rangeSize=1 (in Russian)

[3488] *Ibid.*

[3489] Government of Russia, Official Internet Portal for Legal Information, *Federal Law of 18.03.2019 No. 34-FZ "On Amendments to Parts One, Two and Article 1124 of Part Three of the Civil Code of the Russian Federation* [GT], http://publication.pravo.gov.ru/Document/View/0001201903180027

[3490] http://sk.ru/foundation/legal/p/11.aspx;https://economy.gov.ru/material/directions/gosudarstvennoe_upravlenie/normativnoe_regulirovanie_cifrovoy_sredy/regulirovanie_primeneniya_tehnologiy_iskusstvennogo_intellekta/

[3491] Tass, *The State Duma passed in the first reading a bill on the development of artificial intelligence with the help of PPPs* (Oct. 19, 2022), https://tass.ru/ekonomika/16099497

Data Protection

There are many laws in Russia that regulate the processing of personal data, including the Constitution of the Russian Federation, The Council of Europe Convention 108, and federal law.[3492] The Law on Personal Data of 2006 is the most comprehensive federal law and sets out broad rights and responsibilities associated with the collection and use of personal data.[3493] The Roskomnadzor, Russia's data protection agency, interprets the federal law and brings enforcement actions.[3494]

Russia is also moving to update and expand its national data protection law.[3495] A draft law on the Protection of Consumer Rights would limit the ability of companies to collect personal data from consumers, unless there is a legal basis or the data is necessary for the transaction. A proposed law in the Duma would expand penalties for breach of personal data confidentiality and infringement of personal data anonymization rules. And the Supreme Court of Russia ruled[3496] in 2020 that the personal data of a Russian citizen posted by the Whois Privacy Corporation, based in the Bahamas, without consent is subject to legal action under the Russian Civil Procedure Code.

Algorithmic Transparency

On March 15ᵗʰ, 2022 the Parliamentary Assembly unanimously adopted an Opinion which considered the cessation of the membership of the Russian Federation to the Council of Europe, under Article 8 of the Statute.[3497] However, ratification of Convention 108 is valid as a non-

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[3492] *Constitution of the Russian Federation* (Articles 23 and 24), http://archive.government.ru/eng/gov/base/54.html

[3493] Roskomnadzor, *Federal Law of 27 July 2006 N 152-FZ on Personal Data,* https://eng.rkn.gov.ru/personal_data/protecting_the_rigthts_of_personal_data_subjects/

[3494] Roskomnadzor, *About the Competent Authority,* http://eng.pd.rkn.gov.ru

[3495] Olga Novinskaya, *Recent changes in personal data regulation in Russia, International Lawyers Network* (Nov. 12, 2020), https://www.jdsupra.com/legalnews/recent-changes-in-personal-data-58095/

[3496] Judicial Collegium for Civil Cases of the Supreme Court of the Russian Federation *No. 58-KG20-2* (July 14, 2020)*,* https://legalacts.ru/sud/opredelenie-sudebnoi-kollegii-po-grazhdanskim-delam-verkhovnogo-suda-rossiiskoi-federatsii-ot-14072020-n-58-kg20-2 /

[3497] Council of Europe, *The Russian Federation is excluded from the Council of Europe* (March 16, 2022) https://www.coe.int/en/web/portal/-/the-russian-federation-is-excluded-from-the-council-of-europe

member state.[3498] Russian data protection law does broadly provide rights of access and transparency to the data subject.[3499]

Facial Recognition Controversy

Russia is moving rapidly to deploy AI-based face surveillance across the country, often with government funding that goes to business associates of President Putin. According to the *Moscow Times*, more than 43,000 Russian schools will be equipped with facial recognition cameras ominously named "Orwell."[3500] The system will be integrated with face recognition developed by NTechLab, a subsidiary of Russian President Vladimir Putin's associate Sergei Chemezov's Rostec conglomerate. NTechLab has already deployed facial recognition technology in Moscow to identify criminal suspects across a network of almost 200,000 surveillance cameras. "Critics have accused the technology of violating citizens' privacy and have staged protests against the system by painting their faces," reported *Moscow Times.*

In September 2020, Kommersant daily reported that CCTV cameras with facial recognition software, already used in Moscow, will be installed by the regional authorities in public spaces and at the entryway of apartment buildings in 10 pilot cities across Russia with the purported aim of protecting public safety.[3501] Moscow authorities are also planning to expand the use of this technology, installing CCTV cameras with facial recognition software in trams and underground trains.[3502]

Human Rights Watch said "The authorities' intention to expand the use of invasive technology across the country causes serious concern over the potential threat to privacy. Russia's track record of rights violations

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[3498] Council of Europe, *Chart of signatures and ratifications of Treaty 108* (Status as of 17/01/2023), https://www.coe.int/en/web/conventions/full-list?module=signatures-by-treaty&treatynum=108

[3499] OneTrust, *Russia – Data Protection Overview* (Nov. 2020), https://www.dataguidance.com/notes/russia-data-protection-overview-0

[3500] Moscow Times, *Russia to Install 'Orwell' Facial Recognition Tech in Every School – Vedomosti* (June 16, 2020), https://www.themoscowtimes.com/2020/06/16/russia-to-install-orwell-facial-recognition-tech-in-every-school-vedomosti-a70585

[3501] Kommersant, *Regions will recognize by sight: Moscow video surveillance system will be launched in ten more cities* (Sept. 25, 2020) [GT], https://www.kommersant.ru/doc/4503379

[3502] Government of Russia, *Unified information system in the field of procurement, Implementation of work on equipping the rolling stock of the State Unitary Enterprise "Moscow Metro" with video surveillance equipment* (Aug. 3, 2020), https://zakupki.gov.ru/epz/order/notice/ea44/view/documents.html?regNumber=0173200001420000752&backUrl=89687dbf-73a1-4346-a608-3634c2a98681

means that the authorities should be prepared to answer tough questions to prove they are not are undermining people's rights by pretending to protect public safety."[3503] HRW also stated that Russian national security laws and surveillance practices enable law enforcement agencies to access practically any data in the name of protecting public safety.

Earlier in the year, Amnesty International criticized Russia's plans to broaden the use of widespread facial-recognition systems, saying their expected deployment during public gatherings will "inevitably have a chilling effect" on protesters.[3504]

The face detection system starts to be used for tracking conscripts in Moscow as stated on BBC in October 2022. According to a recent study by the information and analytical agency TelecomDaily, more than 13 million CCTV cameras in Russia in 2020. The face detection systems are spread over the Russian regions. When it came to the number of cameras per 1,000 people, Russia also ranked third, after the United States and China.[3505] As BBC noted, the Moscow "Unified Data Center" (UDChD), which is connected to the facial recognition system, is planning to transfer data from other regions of Russia to collect and systematize personal data.[3506]

OECD / G20 AI Principles

Russia, a member of the G20, endorsed the G20 AI Principles at the G20 Ministerial in 2019.[3507] According to the OECD, many of the G20 AI Principles are addressed in the Russia AI Strategy.

UNESCO Recommendation on the ethics of Artificial Intelligence

Russia has voted for the UNESCO Recommendation on the Ethics of AI, although it has not implemented it entirety due to several reasons. Russia's online censorship agency Roskomnadzor has been monitoring

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[3503] Human Rights Watch, *Russia Expands Facial Recognition Despite Privacy Concerns - Lack of Accountability, Oversight, Data Protection* (Oct. 2, 2020), https://www.hrw.org/news/2020/10/02/russia-expands-facial-recognition-despite-privacy-concerns

[3504] Radio Free Europe, *Watchdog Warns About 'Chilling Effect' Of Russia's Use Of Facial-Recognition Technology* (Jan. 31, 2020), https://www.rferl.org/a/watchdog-warns-about-chilling-effect-of-russia-s-use-of-facial-recognition-technology/30410014.html

[3505] RadioFreeEurope, *We See You! How Russia Has Expanded Its Video-Surveillance System* (Jan,19, 2021), https://www.rferl.org/a/russia-video-surveillance/31052482.html

[3506] BBC, *From the subway to the front. How Moscow authorities monitor "dodgers" with the help of facial recognition system* (Oct. 24, 2022), https://www.bbc.com/russian/features-63346138?ocid=wsrussian.social.in-app-messaging.telegram..russiantelegram_.edit

[3507] OECD, *2020 G20 Digital Economy Ministers Meeting* (Jul.22, 2020), http://www.oecd.org/digital/g20-digital-economy-ministers-meeting-july-2020.htm

online protest activities since 2020. In every Russian region, local branches of Roskomnadzor trace "points of tension," or events that could cause public discontent. Their primary goal is to identify local troublemakers, whose names they then share with the Federal Security Services (FSB) and the Interior Ministry to ensure they are punished. Roskmnadzor was created with the aim of looking at licensing requirements of telecom companies, which soon developed into a censorship agency.[3508] As per BBC, a facial recognition system has been in operation in the Moscow metro since 2020. In 2022, police detained at least 43 people in the Moscow metro, clearly fearing protests. Among them were journalists and activists, whose photos were clearly marked in the system in a special way. In this case, as soon as the right person enters the station, the system reports this to law enforcement agencies.[3509]

Human Rights

Russia is a signatory to the Universal Declaration of Human Rights. Russia ceases to be a Party to the European Convention on Human Rights on 16th of September, 2022.[3510] Also, as noted, since March 15th, 2022 Russia is no longer a member of the Council of Europe, but ratification of the original Convention 108 is still valid. And a recent decision from the European Court of Human Rights, *Zakharov v. Russia*, found that Russia's legislation on surveillance "does not provide for adequate and effective guarantees against arbitrariness and the risk of abuse."[3511]

Freedom House gives Russia 19 out of 100 marks for political rights and civil liberties and marks as "not free" country.[3512] According to Freedom House, "Power in Russia's authoritarian political system is concentrated in

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[3508] The Moscow time, *How the Kremlin Quietly Built Russia's Surveillance State* (Nov. 18, 2022), https://www.themoscowtimes.com/2022/11/12/how-the-kremlin-quietly-built-russias-surveillance-state-a79307

[3509] BBC, *Anger, fear and silhouettes. Moscow Mayor's Office reveals what algorithms recognize people by their faces* (Aug. 22, 2022), https://www.bbc.com/russian/features-62658404

[3510] European Stability Initiative (ESI), *Why Russia had to be expelled from the Council of Europe* (Nov. 14, 2022), https://www.esiweb.org/proposals/why-russia-had-be-expelled-council-europe

[3511] European Court of Human Rights, *Roman Zakharov v. Russia,* No. 47143/06 (Dec. 4, 2015), https://hudoc.echr.coe.int/fre#{"itemid":["001-159324"]}; Paul De Hert and Pedro Cristobal Bocos, *Case of Roman Zakharov v. Russia: The Strasbourg follow up to the Luxembourg Court's Schrems judgment,* Strasbourg Observers (Dec. 23, 2015), https://strasbourgobservers.com/2015/12/23/case-of-roman-zakharov-v-russia-the-strasbourg-follow-up-to-the-luxembourg-courts-schrems-judgment/

[3512] Freedom House, Freedom in the World 2022 – Russia (2022), https://freedomhouse.org/country/russia/freedom-world/2022

the hands of President Vladimir Putin. With loyalist security forces, a subservient judiciary, a controlled media environment, and a legislature consisting of a ruling party and pliable opposition factions, the Kremlin is able to manipulate elections and suppress genuine dissent. Rampant corruption facilitates shifting links among bureaucrats and organized crime groups."

Moreover, as Human Rights Watch reports, the Russian Supreme Court ordered the closure of Memorial, Russia's most prominent human rights organizations: International Memorial Society and Memorial Human Rights Center for violations of the "foreign agents" law. The liquidation was finalized in February 2022, when the Supreme Court rejected their respective appeals. Moreover, in late December 2021, Russian authorities blocked the website of OVD-Info, a human rights watchdog focusing on freedom of assembly In April 2022, Russian authorities revoked the registration of 15 foreign NGOs and foundations, forcing them to shut their offices in Russia, including Human Rights Watch and Amnesty International.[3513]

Meanwhile, United Nations Human Rights Office of the High Commissioner (OHCHR) documented violations of international human rights law and international humanitarian law (IHL) by the belligerent parties in relation to the treatment of prisoners of war and persons hors de combat.[3514]

Lethal Autonomous Weapons

In the international debate about Lethal Autonomous Weapons Systems (LAWS), Russia officially opposes a ban on LAWS and limitations on the development of weaponized AI. In 2019 the Russian delegation at the United Nations' Group of Governmental Experts on LAWS stated that human control over the operation of [LAWS] is "an important limiting factor", but that "specific forms and methods of human control should remain at the discretion of States".[3515]

[3513] Human Rights Watch, *Russian Federation, Events of 2022,* https://www.hrw.org/world-report/2023/country-chapters/russia#981f12

[3514] OHCHR, *REPORT ON THE HUMAN RIGHTS SITUATION IN UKRAINE* (Sep.27, 2022), https://www.ohchr.org/sites/default/files/documents/countries/ua/2022-09-23/ReportUkraine-1Feb-31Jul2022-en.pdf

[3515] Group of Governmental Experts of Russian Federation, *Potential opportunities and limitations of military uses of lethal autonomous weapons systems, section 7* (March 15, 2019) https://reachingcriticalwill.org/images/documents/Disarmament-fora/ccw/2019/gge/Documents/GGE.2-WP1.pdf

Defense Minister Sergei Shoigu said that Russia has already begun producing "weapons of the future" such as combat robots that are "capable of fighting on their own", just like those shown in science-fiction movies.[3516]

Moreover, Russia has actively used LAWs in Ukraine since February 2022. As Stop Killer Robot stated, Russia has used "one-way attack drone which carries an explosive payload of approximately 36kg/80lb, has a flight range of approximately 2500km, and possesses autonomous flight capabilities."

Evaluation

Russia's development of a National AI Strategy, endorsement of the G20 AI Principles, its efforts to develop laws for digital rights and regulation for AI, as well as initiatives to involve the public in the development of AI policy count favorably. But beyond data protection legislation, the absence of robust measures to limit surveillance and protect human rights, the use of LAWS in the war in Ukraine, coupled with the rapid adoption of facial recognition in public places raise concerns about the future impact of Russia's AI program.

[3516] Nadibaidze Anna, *Russia's Perspective on Human Control and Autonomous Weapons: Is the Official Discourse Changing?* (June 2021), https://www.autonorms.eu/russias-perspective-on-human-control-and-autonomous-weapons-is-the-official-discourse-changing-2/ https://tass.com/science/1292483 (May 2021)

Rwanda

National AI Strategy

Rwanda, with Vision 2050, aspires to increase the quality of life and develop modern infrastructure [3517]by strengthening capacity, service delivery, and accountability of public institutions; increasing citizens' participation and engagement in development; and strengthening justice and rule of law. National Strategy for Transformation (NST1) is the vehicle for achieving Vision 2050.[3518] The government pledges to establish legal frameworks that spur economic development and instill fairness, transparency, and accountability across institutions. The Emerging Technologies Strategy and Action Plan aim to position Rwanda as an emerging technology test bed, solution, and export hub; propel the social and economic application of new technologies; prepare the foundations for new technologies and protect citizens and institutions from the negative consequences.[3519]

As a member of the African Union, Rwanda is taking concrete steps to align the country's efforts to the vision of the Union to build a continental digital transformation strategy.[3520] The Government of Rwanda has published a draft of national AI strategy[3521] to equip government agencies and other stakeholders in the country to empower AI developers, citizens, and users, and support the beneficial and ethical adoption of AI. A report by the Africa Policy Institute (Afripoli) highlights Rwanda's National AI Strategy with an emphasis on data policies and access to public data. Critical

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[3517] Republic of Rwanda, *Vision 2050* (2015)
https://www.minecofin.gov.rw/fileadmin/user_upload/Minecofin/Publications/REPORTS/National_Development_Planning_and_Research/Vision_2050/English-Vision_2050_Abridged_version_WEB_Final.pdf

[3518] Republic of Rwanda, *7 Years Government Programme: National Strategy for Transformation (NST1)* (2022)
https://vision2050.minecofin.gov.rw/root/nst/nst1#:~:text=The%20National%20Strategy%20for%20Transformation%20(NST%201)%20is%20the%20medium,other%20continental%20and%20regional%20commitments.

[3519] Digital Transformation Center Rwanda, *Transforming Rwanda into a living Laboratory of Emerging Technologies: MINICT and DigiCenter develop National Emerging Technology Strategy and Action Plan.* Digital Transformation Center Kigali (June 15, 2020) https://digicenter.rw/transforming-rwanda-into-a-living-laboratory-of-emerging-technologies/

[3520] African Union, *The Digital Transformation Strategy for Africa (2020-2030),* https://au.int/sites/default/files/documents/38507-doc-dts-english.pdf

[3521] African Policy Institute, *AI in Africa: Key Concerns and Policy Considerations for the Future of the Continent,* (May 30, 2022), https://afripoli.org/ai-in-africa-key-concerns-and-policy-considerations-for-the-future-of-the-continent

to Rwanda's progress is the adoption of the Continental Data Policy Framework, under the recommendation of the African Union's Digital Transformation strategy[3522]

In 2020, the Ministry of ICT and Innovation (MINICT)engaged in National AI Policy Stakeholders Workshops with The Future Society (TFS) and GIZ FAIR Forward[3523]. The Future Society supports the development of Rwanda's national artificial intelligence framework and development plans, along with the development of AI ethical guidelines, and a practical implementation strategy fit for the local context.[3524] For implementation, Rwanda has the support of GIZ FAIR Forward – 'Artificial Intelligence for All'[3525]. "FAIR Forward – Artificial Intelligence for All" is a global initiative of German Development Cooperation, working together with Rwanda and four other countries to lay the foundations for developing local AI, to strengthen local skills and knowledge in AI; remove barriers of entry to developing AI and to develop AI policy frameworks on ethical AI, data protection and privacy.[3526] FAIR Forward advocates for ethical AI that is rooted in human rights, international norms such as accountability, transparency of decision-making, and privacy and draws on European experiences such as the EU General Data Protection Regulation (GDPR).

The result of this partnership is the National AI Policy framework, currently under validation by the Government of Rwanda. The Rwanda National AI Policy encompasses six priority areas for effective AI policy in Rwanda.

1) 21st-century skills and high AI literacy.
2) Reliable infrastructure and compute capacity.
3) Robust Data Strategy
4) Trustworthy AI adoption in the public sector
5) Widely beneficial AI adoption in the private sector, and
6) Practical Ethical Guidelines.

[3522] African Union, *AU Data Policy Framework,.* (Feb. 2022), https://au.int/sites/default/files/documents/42078-doc-AU-DATA-POLICY-FRAMEWORK-ENG1.pdf

[3523] OECD, *National AI Policy: Stakeholders Workshops,* (2021). https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27391

[3524] The Future Society, The Development of Rwanda's National Artificial Intelligence Policy, (Aug. 31, 2020) https://thefuturesociety.org/2020/08/31/development-of-rwandas-national-artificial-intelligence-policy/

[3525] GIZ. *FAIR Forward- Artificial Intellligence for All.* (n.d.) https://www.giz.de/expertise/html/61982.html

[3526]FAIR Forward, *Artificial Intelligence for All,* https://toolkit-digitalisierung.de/en/fair-forward/

The cooperation with GIZ FAIR Forward includes an AI Policy Maker network with Ministries of ICT and regulatory authorities from our African countries and India, to exchange knowledge and skills and AI policy experiences.[3527] The FAIR Forward project also supports the formulation of ethical guidelines for the use of AI, under the responsibility of Rwanda Utilities Regulatory Authority (RURA). The guidelines aim to support AI AI developers in Rwanda on risk management to protect against harms and threats of these systems.

Other institutions contributing to the development of human-centric AI initiatives are: The Center for the Fourth Industrial Revolution C4IR Rwanda, as responsible for the formulation of policy frameworks "to maximize the social benefits and minimize the risks of advanced science and technology.[3528] The Centre of Excellence in the areas of Digitalization and AI (CoE), for R&D investment and building human capacity and preparation for transition into future of work.[3529]

Public Participation

Rwanda has yet to develop a systematic process for public consultation on matters of AI policy. The Ministry of ICT and Innovation (MINICT), in partnership with Rwanda Utilities and Regulatory Authority, the Rwanda Information Society Authority, engaged relevant stakeholders from the public and private sectors and civil society in the development of the AI policy framework under validation.[3530] The first workshop in September 2020 had the participation of civil society, private sector leaders, academics, and government representatives, focused on identifying and prioritizing AI opportunities, risks, and socio-ethical implications. A Second Collective Intelligence Workshop took place in 2021 (online due to COVID-19) to discuss seven categories of AI policy.[3531] However, there are no recent reports of the outcomes of the 2nd session or information about new public consultation since then.

[3527]Digital Transformation Center Rwanda [DigiCenter]. *How Rwanda's AI Policy helps to shape the evolving AI ecosystem.* (Oct 11, 2021). https://digicenter.rw/how-rwandas-ai-policy-helps-to-shape-the-evolving-ai-ecosystem/
[3528] OECD, *C4IR Rwanda,* (2022), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27383
[3529] OECD, *Centre of Excellence in the areas of digitalization and AI.* (2021), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27384
[3530]Habumuremyi, E, *AI eyed to transform health care in Rwanda*, Global Information Society Watch, (2019), https://www.giswatch.org/node/6186
[3531] The Future Society, *Rwanda's National AI Policy: Stakeholder Workshop,* (Feb 25, 2021). https://thefuturesociety.org/rwandas-national-ai-policy-stakeholder-workshop/

Rwanda has been absent from other consultative meetings, like the APET African Union High-Level Panel on Emerging Technologies (APET) in 2022. These sessions with representatives of African nations focused on the review of policy implementation frameworks governing AI and demystification of the concept of AI in Africa[3532].

Data Protection

In 2019 Rwanda signed[3533]and ratified the African Union Convention on Cyber Security and Personal Data Protection (Malabo Convention).[3534] In June of that same year Rwanda adopted the Child Online Protection Policy ("the COP Policy") designed to mitigate against risks and harms and to deliver a framework that meets children's needs and fulfills their rights. This enactment makes Rwanda one of the first countries to adopt such protections.[3535] The country had also been part of an initiative of UNICEF that aligned to policy guidance of AI for children.[3536]

In 2021, pursuant to the Malabo Convention, the Ministry of Justice published Law No. 058/2021 of 13/10/2021 Relating to the Protection of Personal Data and Privacy. [3537]The Law established principles of lawfulness, fairness and transparency, purpose limitation, and accuracy,

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[3532] AUDA-NEPAD, *The African Union Artificial Intelligence Continental Strategy for Africa,* (May 30, 2022), https://www.nepad.org/news/african-union-artificial-intelligence-continental-strategy-africa

[3533] African Union, *List of Countries which have signed, ratified/acceded to the African Union Convention on Cyber Security and Personal Data Protection,* (Mar 25, 2022). https://au.int/sites/default/files/treaties/29560-sl-AFRICAN_UNION_CONVENTION_ON_CYBER_SECURITY_AND_PERSONAL_DATA_PROTECTION.pdf

[3534] African Union, *African Union Convention on Cybersecurity (Malabo Convention),* (Jun 27, 2014), https://au.int/en/treaties/african-union-convention-cyber-security-and-personal-data-protection

[3535]Republic of Rwanda, Ministry of ICT & Innovation. *Rwanda Child Online Protection Policy,* (Jun 2019), https://rura.rw/fileadmin/Documents/ICT/Laws/Rwanda_Child_Online_Protection_Policy.pdf

[3536] UNICEF, *Policy Guidance on AI for Children: Pilot testing and case studies,* (02 November 2020), https://www.unicef.org/globalinsight/stories/policy-guidance-ai-children-pilot-testing-and-case-studies

[3537] Republic of Rwanda, *Law No. 058/2021 of 13/10/2021 Relating to the Protection of Personal Data and Privacy.* Official Gazette No. Special of 15/10/2021, https://www.minijust.gov.rw/index.php?eID=dumpFile&t=f&f=30015&token=de65a42ffc706372c7f3f868a88bd27551d6ba75

requiring personal data protection impact assessments. Article 3 of the Privacy Law establishes privacy as a "fundamental right".[3538]

While the legislation did not establish an independent data protection agency, there were provisions for a supervisory authority, defined as a public authority in charge of cyber security. The National Cyber Security Authority (NCSA) was established in 2017, under Law No. 26/2017[3539] but was only operational in 2020.[3540] In 2018, the Law No. 60/2018 addressed prevention and punishment of cybercrimes[3541].

Following the GDPR, the Privacy Law seeks to safeguard fundamental rights to privacy by regulating the processing of data and providing the individual with rights over their data.[3542] The law establishes systems of accountability and clear obligations for those who control the processing of personal data. According to One Trust, "The Bill is relatively comprehensive and would introduce obligations related to data subject rights, data processing notifications, pseudonymization, sensitive data, data transfers, and data breach notifications."[3543]

On March 31, 2022, the National Cyber Security Authority launched the Data Protection Office (DPO).[3544] The role of the DPO is to generate awareness of the Data Protection and Privacy Law and lead activities to ensure the law is followed. Those activities include registering processors and controllers, conducting audits, conducting investigations, and refining best practices to uphold the law. The office is also tasked with ongoing learning and research to keep pace with developments and advancements in the data protection ecosystem of control.

[3538]National Cyber Security Authority, *Rwanda Passes New Law Protecting Personal Data,* (Oct 21, 2021), https://cyber.gov.rw/updates/article/rwanda-passes-new-law-protecting-personal-data-1/

[3539] Republic of Rwanda, *Law No. 26/2017 of 31 May 2017 which establishes NCSA.* Official Gazette No. 31/05/21, *https://cyber.gov.rw/index.php?eID=dumpFile&t=f&f=193&token=388512d958cb10ce5 63a7d2629169b38bdcdafdf*

[3540] National Cyber Security Authority, *About,* (n.d.) https://cyber.gov.rw/about/

[3541] National Cyber Security Authority, *Cyber Crimes Law,* (n.d.), https://cyber.gov.rw/index.php?eID=dumpFile&t=f&f=70&token=8a1cd43626bfcc2b99f ba277aca01e6f2aaa1788

[3542] Julius Bizimungu, *Rwanda moves to tighten data protection, privacy*, the New Times (Nov. 6, 2020), https://www.newtimes.co.rw/news/rwanda-moves-tighten-data-protection-privacy

[3543]One Trust Data Guidance, *Rwanda* (Oct. 29, 2020), https://www.dataguidance.com/jurisdiction/rwanda

[3544] Republic of Rwanda, National Cyber Security Authority, *NCSA officially launches the Data Protection Office*, (March 31, 2022), https://cyber.gov.rw/updates/article/ncsa-officially-launches-its-data-protection-office-2/

The DPO began an important national awareness campaign to help citizens understand the data protection and privacy afforded to them by the new Data Protection Law. The campaign covered basic data literacy topics (e.g., terms and definitions), risk mitigation topics (e.g., misinformation, helping seniors stay safe online, children's data protections), and a series of topics on individual data rights (e.g., portability, rectification, erasure). The office has developed several partnerships to expand the reach of its messaging within schools, public transportation areas, and local townships. The first Data Privacy Day took place on January 28, 2023[3545] and Safer Internet Day on February 7, 2023.[3546] The Safer Internet Day event focused on the discussion of children's privacy in the age of social media, with the participation of parents and community organizations.[3547]

Despite these initiatives, Rwanda has not sponsored any of the Global Privacy Assembly (GPA) resolutions and declarations. The DPO had not been established at the time the Declaration on Ethics and Data Protection in Artificial Intelligence (2018),[3548] and the Resolution on Accountability in the Development and Use of Artificial Intelligence (2020)[3549] were passed. The DPO was functional in March 2022, when the GPA 2022 Declaration on Facial Recognition Technology[3550] was issued, but Rwanda is yet to sign.

[3545] Data Protection Office, *Rwanda's Data Protection Office observes its first Data Privacy Week,* (n.d.), https://dpo.gov.rw/articles/data_privacy_week.html#:~:text=For%20the%20first%20time%20since,data%20protection%20and%20privacy%20law.

[3546] Republic of Rwanda, National Cyber Security Authority, *News and Events* (Nov 11, 2022), https://cyber.gov.rw/updates/news-events/

[3547] Elias Hakizimana, *Safer Internet Day 2023. Parents urged to educate children about safe and positive use of technology.The Rwanda Inspirer* (Feb 7, 2023), https://rwandainspirer.com/2023/02/07/safer-internet-day-2023-parents-urged-to-educate-children-about-safe-and-positive-use-of-technology/

[3548] International Conference of Data Protection & Privacy Commissioners, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[3549] Global Privacy Assembly (GPA), *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence,* (Oct 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[3550] Global Privacy Assembly (GPA), *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology,* (Oct 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

Human Rights

Freedom House scores Rwanda as "Not Free" 22/100 in 2022, with a slight increase compared to 2021[3551] The Ibrahim Index of African Governance scores Rwanda's 2021 record on Participation, Rights, and Inclusion at 28.1 out of 100, and ranks Rwanda at 59.1/100. for overall governance, placing the country 12 out of 45 African countries.[3552]

After the genocide of 1994, Rwanda had to rebuild its infrastructure and relations from the ground up. A unity and reconciliation process was followed by a combination of traditional systems of justice and international tribunals.[3553] The National Commission for Human Rights was created in 1999 as an independent institution responsible for the promotion and protection of human rights in Rwanda.[3554] In 2017 Rwanda withdrew from Protocol to the African Charter on Human and Peoples' Rights which allows individuals and NGOs to bring cases directly to the African Court on Human and Peoples' Rights came into effect.[3555] The European Union concluded in its 2018 human rights report that the "area with the most significant restrictions of human rights were the politically related rights and freedoms such as the freedom of expression/freedom of media, freedom of association and freedom of assembly."[3556]

Ahead of the 2021 UN Universal Periodic Review of Rwanda, the government announced National Action Plan for Human Rights (NHRAP) 2017-2020, formulated through a participatory process. This is the first of its kind in Rwanda and builds on extensive work by the Rwandan government to create an inclusive society where all are valued and have equal opportunities. The government commits that the Universal Declaration of Human Rights should guide all future programs and policies

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[3551] Freedom House, *Global Freedom Scores: Rwanda*, https://freedomhouse.org/country/rwanda/freedom-world/2022
[3552] Ibrahim Index of African Governance, *Rwanda, 2021, Overall Governance"*, https://iiag.online/data.html?loc=RW&meas=GOVERNANCE
[3553] Nkusi, A. *The Rwandan Miracle*, UNICEF, https://en.unesco.org/courier/2019-2/rwandan-miracle
[3554] Republic of Rwanda Ministry of Justice*, The National Human Rights Action Plan of Rwanda 2017-2020* https://minijust.gov.rw/fileadmin/Documents/MoJ_Document/NHRAP_FINAL__version_for_cabinet-1.pdf
[3555] Amnesty International, *Rwanda: More progress needed on human rights commitments. Amnesty International submission for the UN Universal Periodic Review – 37th Session of the UPR Working Group, January-February 2021* (Aug. 2020), https://www.amnesty.org/download/Documents/AFR4728582020ENGLISH.PDF
[3556] European Union, *Annual Report on Human Rights and Democracy in the World 2018 – Rwanda* (May 21, 2019) https://eeas.europa.eu/delegations/rwanda/62839/eu-annual-report-human-rights-and-democracy-world-2018-rwanda_en

in all sectors and all phases of the programming process including monitoring and evaluation. The Rwandan judiciary lacks independence from the executive. Top judicial officials are appointed by the president and confirmed by the Senate[3557] dominated by the governing party.

Smart Cities

Established in 2000 and revised in 2012, the aim of Rwanda Vision 2020 was to "transform Rwanda from an agrarian economy to a knowledge-based society by 2020." Under this vision, Smart Rwanda Master Plan had three goals: economic transformation, job creation, and accountable governance. In 2015, Rwanda adopted a National Urbanization Policy to demonstrate how urban development can drive economic transformation. One of the focuses is to "promote quality of life, mitigation of disaster risks, social inclusion and cultural preservation" through "digital service points for rural settlements, smart urban agriculture projects, sensor-based environmental data, and smart and green building labs.[3558] The policy requires public engagement and open data as building blocks. The Rwanda smart city model is centered around 3 main pillars, 9 strategic building blocks, and 27 action initiatives. The three pillars are smart governance and planning; smart and efficient services and utilities; and localized innovation for social and economic development.

Kigali Innovation City (KIC) is the government's flagship program to create a hi-tech ecosystem, modeling itself on the southeast Asian city-state of Singapore. The City of Innovation is to be built as part of Africa50. It is a 62-hectare development located in Kigali's special economic zone (SEZ). The main goal is to create an innovative business hub in the heart of Africa that will include four first-rate universities, innovative agriculture, healthcare, technology, financial services, biotech firms, and both commercial and residential space.[3559]

The Smart City Masterplan was developed in 2017, with the participation of various stakeholders in Rwanda, including regulatory bodies, local authorities, academia, civil society, and the private sector. The

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[3557] Freedom House, *Global Freedom Scores: Rwanda*, https://freedomhouse.org/country/rwanda/freedom-world/2022
[3558] UN Habitat, *Smart City Rwanda Master Plan*, (May 2019), https://unhabitat.org/sites/default/files/documents/2019-05/rwanda_smart_city-master_plan.pdf
[3559] The Borgen Project,, *Big Plans for Rwandan Infrastructure, The Borgen Project,* (Oct. 6, 2019) https://borgenproject.org/tag/kigali-innovation-city/

development was aligned with the Smart Africa Alliance Smart Sustainable Cities Blueprint for Africa.[3560]

Biometric Identification

Rwanda used biometric identification for its census in 2007 to unify all identity information under a single authority, the National Identification Agency (NIDA), and a unique National Identity Number (NIN). This number is now used for health, education, telecom, banking, electoral lists, social protection programs, and border crossings.[3561] Rwanda's authorities also proposed to create a country-wide DNA database to crack down on crime, raising concerns that the data could be misused by the government and violate international human rights laws.[3562] Rwandan regulations require mandatory SIM card registration and a limit of three cards per national ID per operator. Service providers are required to maintain databases and share information with law enforcement if necessary.

In a country that has bitter memories of genocide along ethnic identity lines, the right to data privacy becomes a crucial issue. The national social protection program, Ubudehe, database, was created in 2001[3563]to classify wealth and identify the poorest households using community assessments. The database is interlinked with the national ID number. The lack of transparency on who makes the determination of wealth category and how this impacts an individual's access to opportunities and resources and the extent of stigmatization remains questionable.

A study by the World Health Organization (WHO) on the use of digital technologies to identify vulnerable populations, included Rwanda's CBHI (Community-based health insurance scheme) as a case study. [3564]

[3560] UN Habitat, *Smart City Rwanda Master Plan* (May 2019). https://unhabitat.org/sites/default/files/documents/2019-05/rwanda_smart_city-master_plan.pdf

[3561] ID4Africa, *Rwanda National ID Strategy*, https://www.id4africa.com/2019_event/presentations/PS1/5-Josephine-Mukesha-NIDA-Rwanda.pdf

[3562] International Association of Privacy Professionals, *Rwanda announces plans for countrywide DNA database* (Mar. 26, 2019) https://iapp.org/news/a/rwanda-announced-plans-for-country-wide-dna-database/

[3563] Republic of Rwanda Ministry of Health & World Health Organization, *Rwanda's Performance in Addressing Social Determinants of Health and Intersectoral Action* (2018) https://www.afro.who.int/sites/default/files/2018-03/Rwanda_s_Performance_in_Addressing_Social_Determinants_of_Health__and%20intersectoral%20action%20final%20Report.pdf

[3564] World Health Organization WHO,. *The use of digital technologies to support the identification of poor and vulnerable populations groups for health coverage schemes.*

WHO concluded that the use of a sophisticated data infrastructure (3MS system) to connect the Ubudehe system to the IREMBO-Rwanda online portal resulted in ease of tracking payments to households, cost savings, and fraud control. In a contrasting study, Algorithm Watch analyzed the Ubudehe case as a prime example of Rwanda's 'centralized, unified and biometric repository of the population.'[3565] The process of collection, analysis, and interpretation and the source of decision-makers of such categorization lack transparency.

Lethal Autonomous Weapons

In 2019 Rwanda entered into a partnership with World Economic Forum[3566] to draft a framework for governing drones at scale and foster an ecosystem of unmanned aircraft systems. This decision followed the successful partnership with a startup, *Zipline,* to deliver blood, vaccines, and other medical supplies to rural hospitals in Rwanda, the country decided to regulate the use of drones. The Rwandan government was the first in the world creating a performance-based regulation focused on safety standards for all drones.[3567]

This partnership also resulted in The Advanced Drone Operations Toolkit which provides a modular approach for governments to enable societally important and safe drone projects.[3568] The country is looking to use these technologies to promote agricultural resilience and food security in Rwanda. It has not called for a prohibition on fully autonomous weapons.[3569]Rwanda is working on another proof-of-concept with the

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Insights from Cambodia, India and Rwanda, (Dec 20, 2022), https://www.who.int/publications/i/item/9789240063990

[3565] Algorithm Watch, *Identity-Management and Citizen Scoring in Ghana, Rwanda, Tunisia, Uganda, Zimbabwe and China,* (Oct 21, 2019), https://algorithmwatch.org/en/wp-content/uploads/2019/10/Identity-management-and-citizen-scoring-in-Ghana-Rwanda-Tunesia-Uganda-Zimbabwe-and-China-report-by-AlgorithmWatch-2019.pdf

[3566]World Economic Forum, *Advanced Drone Operations Toolkit: Accelerating the Drone Revolution* (Feb. 26, 2019) https://www.weforum.org/reports/advanced-drone-operations-toolkit-accelerating-the-drone-revolution

[3567] Russo A., Wolf H., *What the world can learn from Rwanda's approach to drones*, World Economic Forum (Jan.16, 2019) https://www.weforum.org/agenda/2019/01/what-the-world-can-learn-from-rwandas-approach-to-drones/

[3568]World Economic Forum, *Advanced Drone Operations Toolkit: Accelerating the Drone Revolution* (Feb. 26, 2019) https://www.weforum.org/reports/advanced-drone-operations-toolkit-accelerating-the-drone-revolution

[3569]The Campaign to Stop Killer Robots, *Country Views on Killer Robots* (Nov. 13, 2018) https://www.stopkillerrobots.org/wp-content/uploads/2018/11/KRC_CountryViews13Nov2018.pdf

World Economic Forum to apply a framework of ten principles selected from AI ethics and healthcare ethics and interpreted within the context of the use of chatbots in healthcare.[3570]

In February 2023, Rwanda participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Rwanda, together with other countries, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[3571] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[3572]

OECD / G20 AI Principles

Rwanda is not a member of the OECD and has not endorsed the OECD AI Principles.[3573] The OECD AI Observatory reports the progress of the collaborative work of the Rwanda Ministry of ICT and Innovation (MINICT), and the Rwanda Utilities Regulatory Agency (RURA), The

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[3570] How Rwanda Is Shaping The Global Rollout Of Everything From AI Health Bots To Drones (Feb 8,2021) https://medaditus.org/news-articles/how-rwanda-is-shaping-the-global-rollout-of-everything-from-ai-health-bots-to-drones/
[3571] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action
[3572] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action
[3573] OECD, *Forty-two countries adopt new OECD Principles on Artificial intelligence,* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

Future Society and GIZ FAIR Forward.[3574] According to the Observatory, the national AI policy framework is set to address three OECD AI principles: (1) Investing in AI R&d, (2) Fostering a digital ecosystem for AI, and (3) Providing an enabling policy environment for AI.

UNESCO Recommendation on the Ethics of Artificial Intelligence

Rwanda is a member state of UNESCO since November 1962[3575] and is one of the 193 countries endorsing the Recommendation on the Ethics of AI[3576]. According to UNESCO's Artificial Intelligence Needs Assessment Survey, Rwanda has ongoing initiatives to guide the development of AI at national level[3577]. Rwanda is one of 24 countries in Africa that have requested support in the development of policies on AI and one of 21 countries that have requested UNESCO for help in setting standards.[3578] The UNESCO report highlights Rwanda's policies and centers of excellence on AI as policy initiatives completed as of 2022. Strategies, legislation, and ethical guidelines are yet to be implemented.

Evaluation

Rwanda's Vision 2050, the African Union Digital Transformation Strategy, and the SmartAfrica Blueprint, set the framework for the formulation of a national AI strategy. The draft strategy achieved in cooperation with the MINICT, FAIR Forward AI for All and The Future Society set the intent of the country in aligning with the UNESCO Recommendation on the Ethics of AI. An independent AI oversight mechanism could also be a positive step in addressing AI-powered surveillance practices.

[3574] OECD, *National AI Policy: Stakeholders Workshops,* (2021), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27391
[3575] UNESCO. *Rwanda. Interactive Map.* (2023). https://en.unesco.org/countries/rwanda
[3576] UNESCO, *UNESCO Member States Adopt the First Ever Global Agreement on the Ethics of Artificial Intelligence* (April. 21, 2022) https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence
[3577] UNESCO, *Artificial intelligence needs assessment survey in Africa,* (2021), https://unesdoc.unesco.org/ark:/48223/pf0000375322
[3578] UNESCO, *Artificial intelligence needs assessment survey in Africa,* (2021), https://unesdoc.unesco.org/ark:/48223/pf0000375322

Saudi Arabia

National AI Strategy

The Kingdom of Saudi Arabia (KSA)'s AI initiatives are led by the Saudi Data and AI Authority (SDAIA), which reports directly to the Prime Minister and consists of members chosen by the Prime Minister.[3579] A Royal Decree established the Saudi Data and Artificial Intelligence Authority (SDAIA) in 2019,[3580] governed by a Board of Directors chaired by the Deputy Prime Minister. The SDAIA has the aim of fostering "the digital ecosystem while also supporting the suite of values-based G20 AI Principles."[3581]

The role of SDAIA is to lead the national trend for data and artificial intelligence to achieve its vision to elevate the Kingdom to leadership within the data-driven economies.[3582] "Data is the single most important driver of our growth and reform and we have a clear roadmap for transforming KSA into a leading AI and data-driven economy," said Dr. Abdullah bin Sharaf Al Ghamdi, president of SDAIA.[3583]

The SDAIA oversees three organizations: The National Data Management Office (NDMO), the National Information Center (NIC), and the National Center for AI (NCAI). The NDMO is responsible for the regulation of data which includes standardization and regulation of artificial intelligence as well as ensuring compliance. The NIC oversees the operation of government data infrastructure and government analytics. The implementation of the national AI strategy is the main responsibility of the NCAI. This includes facilitating capacity-building, AI innovation, and raising awareness of AI as well as expanding education on AI.[3584,3585]

The SDAIA developed the National Strategy for Data and Artificial Intelligence (NSDAI), approved by the Saudi High Commissioner on July

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[3579] Saudi Gazette, *King Salman issues royal decrees, including setting up of industry and resources ministry (*Aug. 2019), https://saudigazette.com.sa/article/575953
[3580] Arab News, *King Salman issues royal decrees, including creation of industry and resources ministry* (Aug. 30, 2019), https://www.arabnews.com/node/1547546/saudi-arabia
[3581] OECD G20 Digital Economy Task Force, *Examples of AI National Policies* 35, 41, 42 (2020), https://www.oecd.org/science/examples-of-ai-national-policies.pdf
[3582] SDAIA, *National Strategy for Data and AI* https://ai.sa/index.html
[3583] Gulf News, *Saudi Arabia approves policy on Artificial Intelligence, expects SR500b windfall by 2030*, (Aug. 10, 2020), https://gulfnews.com/business/saudi-arabia-approves-policy-on-artificial-intelligence-expects-sr500b-windfall-by-2030-1.1597032000775
[3584] Future of Life, *AI-Policy Saudi Arabia,* https://futureoflife.org/ai-policy-saudi-arabia/
[3585] OECD G20 Digital Economy Task Force, *Examples of AI National Policies* 35, 41, 42 (2020), https://www.oecd.org/science/examples-of-ai-national-policies.pdf

7th, 2020[3586] and published in August 2020.[3587] The National Strategy aims to advance the KSA Vision 2030.[3588,3589] The AI Strategy, also called 'ASPIRE" includes a roadmap includes a multi-phase approach to addressing national priority "a multi-phased approach focused on addressing the national priorities by 2025, building foundations for competitive advantage in key niche areas by 2030, and becoming one of the leading economies utilizing and exporting Data & AI after 2030."[3590]

By 2021, the strategy aims to support national priorities by addressing the urgent needs to enable the transformation of the Kingdom in accordance with the priorities of Vision 2030.[3591] By 2025, the strategy will focus on building specialized capabilities as the foundation for competitive advantage by specializing in specific areas.[3592] And by 2030, the strategy will be directed at developing entrepreneurial competition by competing at the international level and joining the leading economies that benefit from data and artificial intelligence.

The NSDAI, also called ASPIRE, has 6 pillars:[3593]

1. Ambition: Position KSA as the global hub where the best of Data & AI is made a reality, to be amongst the top 15 nations in development and application of AI by 2030.
2. Skills: Transform KSA's workforce with a steady local supply of Data & AI-empowered talents. Train and host more than 20,000 data and AI specialists and experts by 2030.
3. Policies & Regulations: Enact the most welcoming legislation for Data & AI businesses and talents. Partner with leading AI nations, international organizations and private sector.
4. Investment: Attract efficient, stable funding for qualified Data & AI investment opportunities, of over US$20B in data and AI.

[3586] SDAIA, *National Strategy for Data and AI* (site accessed 17 Mar 2023) https://ai.sa/index.html

[3587] Carrington Malin, *Saudi National Strategy for Data and AI* (Aug. 2020), https://www.sme10x.com/technology/saudi-national-strategy-for-data-and-ai-approved

[3588] Government of Saudi Arabia, *Vision 2030* (2020), https://vision2030.gov.sa/en

[3589] Catherine Jewell, *Saudi Arabia embraces AI-driven innovation* (Sept. 2018), https://www.wipo.int/wipo_magazine/en/2018/05/article_0002.html

[3590] SDAIA, *National Strategy for Data & AI: Realizing our best tomorrow* (Oct. 2020), https://ai.sa/Brochure_NSDAI_Summit%20version_EN.pdf

[3591] SDAIA, *National Strategy for Data and AI* (site accessed 17 Mar 2023) https://ai.sa/index.html

[3592] Ibid.

[3593] Access Partnership, *Introducing Saudi Arabia's National Strategy for Data and AI,* (Oct 22, 2022), https://accesspartnership.com/introducing-saudi-arabias-national-strategy-for-data-and-ai/

5. Research & Innovation: Empower top Data & AI institutions to spearhead innovation and impact creation

6. Ecosystem: Stimulate Data & AI adoption with the most collaborative, and forward-thinking ecosystem, of more than 300 active data and AI start-ups, world-class regulatory sandboxes for the development and deployment of AI powered technology

The goals focus on fostering an enabling business and regulatory environment, including education schemes that promote the development of a workforce that fits the industry's new needs. Major educational reforms aim to foster the development of digital skills for jobs in emerging technology including AI.[3594]

As part of the National Strategy, the Kingdom aimed at the creation of a framework to promote and support the ethical development of Data & AI research and solutions. The framework includes guidelines for the development of data protection and privacy standards."[3595] The National Data management Office (NDMO) worked on the development of policies and regulations related todata privacy and freedom of information, with e Open Data platforms as a priority topic. The regulatory framework will include specifications on data collection, classification, sharing, open data policy, and freedom of information."[3596]

KSA's Deputy Minister Dr. Ahmed AL Theneyan emphasized the importance of regulation in the Kingdom's AI Strategy. This includes education plans that promote the development of a workforce that fits the industry's new needs. The government is undertaking major educational reform to foster the development of digital skills for jobs in emerging technology including AI.[3597]

The SDAIA website provides information about the Kingdom's roadmap for AI,[3598] current activities, achievements, and general information about the authority and its work.[3599] Further, the SDAIA

[3594] Catherine Early, *Saudi Arabia signs off on Artificial Intelligence policy* (Aug. 2020), https://www.globalgovernmentforum.com/saudi-arabia-signs-off-on-artificial-intelligence-policy/

[3595] SDAIA, *National Strategy for Data & AI: Realizing our best tomorrow* (Oct. 2020), https://ai.sa/Brochure_NSDAI_Summit%20version_EN.pdf

[3596] SDAIA, *National Strategy for Data & AI: Realizing our best tomorrow* (Oct. 2020), https://ai.sa/Brochure_NSDAI_Summit%20version_EN.pdf

[3597] Early, Catherine, *Saudi Arabia signs off on Artificial Intelligence policy* (Aug. 2020), https://www.globalgovernmentforum.com/saudi-arabia-signs-off-on-artificial-intelligence-policy/

[3598] Saudi Data and AI Authority, Home, https://sdaia.gov.sa/

[3599] SDAIA (SDAIA), https://sdaia.gov.sa/?Lang=en

provides a digitized version of the strategy report.[3600] The Vision 2030 Strategy was developed by the Council of Ministers and the Council of Economic Affairs.[3601] The Vision 2030 website sets out broad policy objectives.[3602] There are indicators and targets for every Theme as well as information on the respective initiatives. Vision 2030, however, encompasses many different objectives, AI is only one of many.

Public Participation

The Saudi AI initiatives are led by the Saudi Data and AI Authority, which reports directly to the Prime Minister and consists of members chosen by the Prime Minister.[3603]

In the most recent UN e-Government Survey of 2022, Saudi Arabia ranked in Cluster II as *top of the class* in the E-Government Development Index (EGDI), and is placed in position # 31 out of 193 countries in the world in EGDI and 2nd in the GCC.[3604] The UN report highlighted the e-participation initiatives at the national and local level and the integration of these programs through the Balady portal. The Balady (Arabic for 'My country') includes information on e-participation functions, including e-consultation, e-information and e-decision making. An interactive platform includes an option of 'your voice is heard', 'self-evaluation' and 'your decision' [3605]

The Bertelsmann Foundation country report 2022,[3606] ranked Saudi Arabia #96 out of 137 in the governance index, with low scores in Rule of Law and "political participation. The report indicates that public debate about political issues is minimal.

The Saudi Data & Artificial Intelligence Authority (SDAIA) announced on 17 August 2022 that it had launched a consultation and is seeking public comments on its project entitled Principles of Ethics of

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[3600] Kingdom of Saudi Arabia, *National Strategy for Data and AI,* https://ai.sa/index-en.html

[3601] Vision 2030, Governance, https://vision2030.gov.sa/en/governance

[3602] Kingdom of Saudi Arabia, *Vision 2030, Programs,* https://vision2030.gov.sa/en/programs#

[3603] Saudi Gazette, *King Salman issues royal decrees, including setting up of industry and resources ministry* (Aug. 2019), https://saudigazette.com.sa/article/575953

[3604] United Nations. *E-government Survey 2022. The future of Digital Government.* (2022). https://desapublications.un.org/sites/default/files/publications/2022-09/Web%20version%20E-Government%202022.pdf

[3605] Government of Saudi Arabia, *Balady Portal,* (2023), https://balady.gov.sa/

[3606] BertelsmannStiftung Foundation, *BTI Transformation Index. Saudi Arabia Country Report 2022,* https://bti-project.org/en/reports/country-report/SAU

Artificial Intelligence.[3607] In particular, SDAIA explained that artificial intelligence ('AI') ethics principles have been developed with the aim to enhance data governance and AI in order to reduce the negative effects of AI systems and their potential threats. The survey ended on 1 September 2022.

Last 2021, the KSA Communications and Information Technology Commission (CITC) sought public comment on the Digital Content Platform Regulations Document." According to the Commission, "The initiative is aimed to regulate, govern, activate, and motivate digital content platforms to expand and grow. In addition to engage the private sector, empower entrepreneurs as well as attract investments and protect users of digital content platforms." They stated: "The commission calls on interested parties from the Kingdom and abroad as well as the public to submit their views on the consultations document before November 30, 2021. The Digital Content Council and CITC value the importance of engaging interested parties, investors and entrepreneurs in the regulations drafting process."[3608]

Data Protection

The KSAPersonal Data Protection Law (PDPL) was created by Royal Decree M/19 of September 2021 and Cabinet Resolution No. 98 of September 2021. The Law entered into effect in 2022. In 2023, the Executive Regulations to the PDPL are set to be released.

The PDPL aims "to protect individuals' personal data privacy and regulate organizations' collection, processing, disclosure, or retention of personal data." The law goes into effect on March 17, 2023.[3609] The PDPL includes provisions that cover: "the rights of the owner of personal data, the processing of personal data or changing the purpose of processing it, the choice of the processing party, specifying periods for exercising the right to access data, data collection, data content, data destruction, data privacy policy adoption, data collection methods and elements, data disclosure, data modification and update, data retention, data preservation, data leakage or

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[3607] Saudi Public Consultation Platform, (poll on) *Principle of artificial intelligence ethics* (accessed 17 Mar 2023)
https://istitlaa.ncc.gov.sa/ar/Transportation/NDMO/AIEthicsPrinciples/Pages/default.aspx#
[3608] KSA Communications and Information Technology Commission, *CITC Publishes a Public Consultation on Digital Content Platform Regulations Document* (2021)
https://www.citc.gov.sa/en/new/publicConsultation/Pages/144304.aspx).
[3609] Bureau of Experts at the Council of Ministers. Personal Data Protection System.
https://laws.boe.gov.sa/BoeLaws/Laws/LawDetails/b7cfae89-828e-4994-b167-adaa00e37188/1

corruption, evaluation of the effects of data processing, health and credit data processing, personal means of communication, photocopying of official documents, data transfer, system application supervision authority, data records, creating an electronic portal, complaints, violations and penalties, violations review committee, controlling violations, maintaining data secrets."

The PDPL, modeled after the EU's General Data Protection Regulation (GDPR), aims to prevent the misuse of personal data and specifically implements principles such as "purpose limitation and data minimization, controller obligations, including registration and maintenance of data processing records, data subject rights, and penalties for breach of provisions."[3610] The law also aims to align the Kingdom with other countries in the region and with international standards.[3611] In the meantime, the National Data Governance Interim Regulations will remain in place.

The Kingdom issued the E-Commerce Law of 2019 focuses on increased transparency and consumer protection to enhance trust in online transactions, and includes provisions for the protection of personal data of customers [3612] The Law sets obligations to service providers to protect the personal data of customers in their possession or 'under their control.[3613] The KSA E-Commerce Law prohibits service providers from using customers' personal data for 'unlicensed or unauthorized' purposes and disclosing personal data to third parties without the customer's consent.

The Saudi Arabia National AI Strategy proposed strong rules for data protection and in October 2020, the SDAIA published the National Data Governance Interim Regulations. The regulations cover five topics: "data classification by public entities, protection of personal data, data sharing between public entities, freedom of information requests, and open data. Much of the document, including the regulation on the protection of

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[3610] Data Guidance, *Saudi Arabia* (2021),
https://www.dataguidance.com/jurisdiction/saudi-arabia
[3611] Bureau of Experts at the Council
Ministers, https://laws.boe.gov.sa/BoeLaws/Laws/LawDetails/b7cfae89-828e-4994-b167-adaa00e37188/1).
[3612] PWC, *Saudi Arabia Data Privacy Landscape* (Nov 2019),
https://www.pwc.com/m1/en/services/tax/me-tax-legal-news/2019/saudi-arabia-data-privacy-landscape-ksa.html
[3613] Ibid.

personal data, draws significantly from international regulations such as the European Union's GDPR."[3614]

For example, individuals will have the "right to be informed of the legal basis and purpose for the collection and processing of their personal data. Personal data cannot be collected or processed without the Data Subject's express consent." Data subjects will also have the "right to access personal data in possession of the Data Controller, including the right to correct, delete, or update personal data, destroy unnecessary data, and obtain a copy of the data in a clear format."

In 2021, the SDAIA initiated the Open Data Strategy 2022-2024 with the aim to "Provide high-value and re-usable Open Data for the nation to increase transparency and foster innovation through collaboration, enabling a data-driven economy."

- With this initiative, the SDAIA also hopes to:[3615]empower governance and regulatory clarity and enable economic growth
- Prioritize and publish accessible, quality, and demanded data sets; and
- Create impact through awareness, innovation as well as international and local partnerships.

Last November 2022, the Saudi Data and Artificial Intelligence Authority (SDAIA) launched[3616] a public consultation on proposed amendments to the Personal Data Protection Law, promulgated by Royal Decree No. M/19, dated 09/02/1443H (PDPL), which was originally published 24th of September 2021. The public consultation lasted until the 20th of December 2022 and all organizations were invited to submit their comments.

The proposed amendments seek to address a number of critical issues in the current version of the PDPL, including

- The regulatory framework for cross-border personal data transfers and in particular the introduction of the concept of adequacy.

[3614] Albright Stonebridge Group, *ASG Analysis: Saudi Arabia Publishes National Data Governance Interim Regulations* (Oct. 21, 2020),
https://www.albrightstonebridge.com/news/asg-analysis-saudi-arabia-publishes-national-data-governance-interim-regulations
[3615] SDAIA, *Open Data Strategy 2022-2024* (2021),
https://sdaia.gov.sa/files/KSAOpenData%20StrategyExecutiveSummary.pdf
[3616] Kelly Blythe, Abdulrahman Aljalan, and Zahi Younes. *Saudi Arabia: Public consultation launched on proposed amendments to Personal Data Protection Law* (Dec 2, 2022) *https://www.globalcompliancenews.com/2022/12/02/https-insightplus-bakermckenzie-com-bm-technology-media-telecommunications_1-saudi-arabia-public-consultation-launched-on-proposed-amendments-to-personal-data-protection-law_1_1_11232022/*

- ▪ The introduction of a further legal basis on which organizations can rely for the processing of personal data (i.e., a similar concept to the controller's legitimate interest in the processing is introduced).
- ▪ The introduction of a right for data subjects to data portability.
- ▪ Clarification of the statutory threshold that must be met to trigger the need to notify a data breach to the Saudi regulator.

The Saudi Data and AI Authority, was welcomed as a new Observer to the Global Privacy Assembly (GPA) in 2021 until 2025.[3617] The Authority is not an endorser of the Global Privacy Assembly's Declaration on Ethics and Data Protection (2018);[3618] the Resolution on Accountability in the Development and Use of AI (2020)[3619] and Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology (2022).[3620]

Algorithmic Transparency

Saudi Arabia has not yet established regulations to ensure Algorithmic Transparency. The existing Personal Data Protection Law (PDPL) does not include specific provisions on automated decision-making. The draft Executive Regulations set to enter into effect in March 2023 do include the right to be informed and right to object to automated decision-making, in addition to the right to be "informed of certain details with respect to the processing of the data subjects' personal data'.[3621]

Example of a KSA public entity adopting a culture of protection of personal data, is the Saudi Tourism Authority. In the website privacy

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[3617] Global Privacy Assembly. *List of Observers.* (2023).
https://globalprivacyassembly.org/participation-in-the-assembly/list-of-observers/

[3618] International Conference of Data Protection & Privacy Commissioners. *Declaration on Ethics and Data Protection in Artificial Intelligence.* Oct. 23, 2018.
https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[3619] Global Privacy Assembly (GPA). *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence.* (Oct 2020).
https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[3620] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition technology,* (Oct 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[3621] Simmons & Simmons, *Draft Executive Regualtions to the Saudi Personal Data Protection Law,* (Mar 17, 2022), https://www.simmons-simmons.com/en/publications/cl0uq7r3u149m0a2203ij28kh/draft-executive-regulations-to-the-saudi-arabia-data-protection-law

statements, the Authority explicitly informs users that no automated decision, including profiling is carried out, and the obligation to notify users "how [they] use automated decision making and/or profiling- when and why."[3622]

  Human Rights Watch conducted a global investigation of EdTech products that were endorsed by 49 governments for children's online education learning during the Covid-19 pandemic. Indonesia was one of the 49 countries analyzed.[3623] Notably, the Saudi Arabian government is among the nine governments included in the study pool that directly built and offered 11 learning apps that had the potential to collect AAID from childre for advertising and monetization. Saudi Arabia iEN was one of the only 12 websites (Out of the 124 websites analyzed) that did not collect and transmit data about children through third-party trackers and preserved their privacy. The iEN app was among the reported 56 government-built EdTech products that sent children's data to AdTech companies, that had the potential to give a third-party company access to a user's 'persistent identifiers (Android Advertising ID), camera.'

Digital Government

  Saudi Arabia has been ranked the best in the region and third globally for its digital government transformation by the World Bank's GovTech Maturity Index for 2022.[3624] The Kingdom scored 96.29 percent in its core government systems, 97.69 percent in fostering enablers, 97.93 percent in service delivery, and 96.62 percent in citizen engagement. The Kingdom has excelled with very high performance in its digital government transformation, putting it in the group of "very developed countries", according to the index report. The GTMI was developed as part of the World Bank's GovTech Initiative to measure digital government maturity in four focus areas; supporting core government systems, enhancing service delivery, mainstreaming citizen engagement, and fostering GovTech enablers. Consisting of 198 countries, the average GTMI score increased from 0.519 in 2020 to 0.552 in 2022 showing a clear overall improvement in economies.

  The Kingdom initiated in 2020 a national data bank to consolidate more than 80 government datasets, the equivalent to 30 per cent of the

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[3622] Saudi Tourism Authority, *Privacy Policy,* https://www.sta.gov.sa/en/privacy-policy
[3623] Human Rights Watch, *How Dare They Peep into My Private Life*, (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments#6693
[3624] World Bank. Saudi Arabia's digital government advances ranked 3rd globally (date) https://www.arabnews.com/node/2201576/business-economy

government's digital assets. It is also planning to build one of the largest clouds in the region by merging 83 data centers owned by more than 40 government bodies.[3625]

In 2017 KSA granted the robot, Sophia, citizenship. This is a first worldwide and was met with mixed reactions.[3626] CNBC said, "Sophia has been touted as the future of AI, but it may be more of a social experiment masquerading as a PR stunt."[3627] Bloomberg noted that "Migrant laborers can't become citizens; android Sophia can."[3628]

Global AI Summits

The Global AI Summit, held in October 2020, is described as the "world's premier platform for dialogue that brings together stakeholders from the public sector, academia, and private sector, to shape the future of Artificial Intelligence (AI)."[3629] Speakers from across sectors explored the themes of "AI for the Good of Humanity." "AI for good," AI for all:[3630]

The President of SDAIA emphasized the importance of working together internationally to ensure the sustainable development of AI[3631] (…) to accelerate AI for sustainable development in low and middle-income countries and to enable the sharing of AI best practices globally to ensure a more inclusive future powered by AI where no one is left behind."

The World Bank Group and SDAIA set out a new partnership to "help finance, stimulate, and accelerate the development and adoption of artificial intelligence technologies to serve people and development, initially in Africa, and globally at a later stage" and "to strengthen Saudi

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[3625] Vishal Chawla, How Saudi Arabia Is Looking To Develop & Integrate Artificial Intelligence In Its Economy, Analytics India Magazine (Aug. 23, 2020), https://analyticsindiamag.com/how-saudi-arabia-is-looking-to-develop-integrate-artificial-intelligence-in-its-economy/

[3626] Future of Life, *AI Policy-Saudi Arabia*, https://futureoflife.org/ai-policy-saudi-arabia/

[3627] Jaden Urbi and Sigalos MacKenzie, *The Complicated Truth about Sophia the Robot-an almost human robot or a PR stunt*, CNBC (June 2018), https://www.cnbc.com/2018/06/05/hanson-robotics-sophia-the-robot-pr-stunt-artificial-intelligence.html

[3628] Tracy Alloway, *Saudi Arabia Gives Citizenship to a Robot,* Bloomberg (Oct. 2017), https://www.bloomberg.com/news/articles/2017-10-26/saudi-arabia-gives-citizenship-to-a-robot-claims-global-first#xj4y7vzkg

[3629] Global AI Summit, *About Us*, https://www.theglobalaisummit.com/#about-us

[3630] Global AI Summit, *Program,* https://www.theglobalaisummit.com/#program

[3631] Global AI Summit, *AI for the Good of Humanity* (Oct. 21, 2020) (livestream), https://www.youtube.com/watch?v=uOGYQlhmb_8

Arabia's role as a key contributor in supporting developing countries."[3632] KSA and the International Telecommunications Union (ITU) signed a Memorandum of Understanding to "support global cooperation in the field of artificial intelligence". ITU announced the development of an internationally-recognized system for countries to mobilize resources, providing assistance for official agencies that want to adopt AI technologies, and accreditation to meet economic requirements." Dr. Abdullah bin Sharaf Alghamdi, President of the SDAIA, stated: "The International Telecommunication Union will share the best practices in the field of artificial intelligence with the Kingdom. This will help in shedding light on how to sponsor and support emerging companies and new incubators in the national space, especially as there is no official framework that currently exists to support the AI readiness of countries and international cooperation."[3633]

The 2nd Global AI Summit, was held from 13 to 15 September 2022 under the theme "Artificial Intelligence for the Good of Humanity."*[3634]* The Summit examined eight pillars: smart cities, capacity building, healthcare, transportation, energy, culture, environment, and economic mobility. More than 40 memoranda of understanding, declarations, and partnerships were signed between the public and private sectors towards investing in AI technologies, underlining the Kingdom's aspirations to become a global AI hub as part of its development program, Vision 2030.

During the summit, the State Members of the Digital Cooperation Organization (DCO)[3635] adopted the Riyadh AI Call for Action Declaration (RAICA). The declaration was signed by all members of DCO including Bahrain, Cyprus, Djibouti, Kuwait, Morocco, Nigeria, Oman, Pakistan, Jordan, Rwanda, and Saudi Arabia.[3636] The declaration promotes the use AI technology to benefit transnational and transcontinental communities, advancing the DCO's commitment to identify and address present,

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[3632] Global AI Summit, Press Releases, Keen to harness benefits of artificial intelligence for all Saudi Arabia establishes new partnership with World Bank Group (Oct. 2020), https://theglobalaisummit.com/news4.html

[3633] Global AI Summit, Press Releases, SDAIA and International Telecommunication Union sign MoU to Develop International Artificial Intelligence Framework (Oct. 2020), https://theglobalaisummit.com/news10.html

[3634] Access Partnership, *Saudi Arabia's Global AI Summit: points of interest for the industry* (5 October 2022) https://accesspartnership.com/saudi-arabias-global-ai-summit-points-of-interest-for-the-industry/#_ftn1

[3635] *Digital Cooperation Organization* (site accessed 17 Mar 2023). https://dco.org/

[3636] WIRED. *The Key wins of Saudi Arabia's Global AI Summit.* (Sep 27, 2021). https://wired.me/technology/saudi-arabia-global-ai-summit/

emerging, and future humanitarian issues. The declaration highlights seven key pillars:

1. Closing the digital divide,
2. Empowering underprivileged communities,
3. Promoting digital development,
4. Ensuring fairness and non-discrimination,
5. Driving AI innovation,
6. Combating climate change through AI, and
7. Engaging in international collaboration and cooperation.

The International Telecommunication Union (ITU) signed a new agreement with SDAIA, this time to formulate a Global AI Readiness Framework for key socio-economic domains, such as health and smart mobility. The agreement aims to establish best practices for AI regulatory frameworks, and institutional reforms, allowing a variety of tools and activities to explore national AI best practices and countries' readiness.

SDAIA and IBM signed a strategic agreement to drive the adoption of AI across the Kingdom's carbon capture and industrial domains. Riyadh has also committed to achieving net zero emissions by 2060 and supporting multinational action to cut emissions.

The Kingdom announced the "AI Centre for Environment, Water and Agriculture" the first-of-its-kind AI Center for sustainability research and development in the Kingdom of Saudi Arabia and the Middle East . The "AI Centre for Environment, Water and Agriculture" brings together SDAIA and the Ministry of Environment, Water and Agriculture (MEWA) with Google Cloud and partner Climate Engine.

Google Cloud and SDAIA also launched the "Elevate" global program, which aims to reduce the gender gap in the technological sector, especially within AI. The program provides a four-month training program to women in tech and science, empowering them to pursue growing job opportunities in the fields of cloud architecture, data engineering, machine learning engineering, and AI.

SDAIA announced the decision to join the World Bank's Digital Development Partnership (DDP) to help developing countries leverage digital innovations to tackle some of their most challenging issues. By joining the DDP, Riyadh aims to contribute to the overall digital development agenda, ensuring sustainable development for less privileged countries.

Biometric Identification

Digital Identity initiatives are on the agenda of the Kingdom. In 2021, Saudi Telecom Company (STC) signed an MoU with Thales on

ample cooperation that also encompassed Smart Cities, SIMs, IoT and 5G Satellites.[3637] The Ministry of Interior of KSA announced the introduction of a biometric passport with advanced securities, including an electronic processor chip with biometric information for authentication. [3638] The Jawazat in 2021 released a Digital ID (Muqeem- Iqama) for Expats, within the new electronic application ABsher Individuals. Carrying the Iqama card was compulsory for ex-pats, and subject to fines for not adhering. However, later in the year, the Jawazat clarified that Expats could use the alternate plastic Muqeem version as well.[3639] The Muqeem card is under the Ministry of Interior in cooperation with the National Information Center.

Mass Surveillance

The Kingdom of Saudi Arabia was among the countries studied by the Carnegie Endowment for Peace in 2019 on the use of AI technology for mass surveillance.[3640] According to the research, the Saudi government cooperates with several global technology firms to solidify the digital infrastructure: Huawei to set up Safe cities, Google with cloud servers, BAE with mass surveillance systems, NEC with facial recognition technology, Amazon and Alibaba with cloud computing centers within the smart city project. U.S. and Chinese technology firms also included Briefcam, Gatekeeper, Hikvision, Huawei, Hugslock, IBM, according to the study.[3641]

The Saudi Arabia's Makkah Region Development Authority (MRDA) implemented a crowd-control system to protect pilgrims during Hajj, and increase security and safety. The system includes a wristband with digital ID information, special healthcare requirements and location via GPS, and surveillance cameras in real-time to monitor the holy sites.

During the fight against COVID-19, the SDAIA launched two apps: the Tawakkalna[3642] app to manage movement permits for government and

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[3637] Frank Hersey, _Thales signs MoU to develop digital identity, smart cities in Saudi Arabic,_ (Dec 10, 2021), https://www.biometricupdate.com/202112/thales-signs-mou-to-develop-digital-identity-smart-cities-in-saudi-arabia

[3638] Ayang Macdonald, _Saudi Arabia plans imminent rollout of biometric passport, UAE hits 2M digital IDs,_ (Oct 26, 2021), https://www.biometricupdate.com/202110/saudi-arabia-plans-imminent-rollout-of-biometric-passport-uae-hits-2m-digital-ids

[3639] Saudi Gazzette, _Saudi Jawazat: It is not compulsory to carry digital Iqama,_ (March 11, 2021), https://www.zawya.com/en/legal/saudi-jawazat-it-is-not-compulsory-to-carry-digital-iqama-m8kk04no

[3640] Carnegie Endowment for International Peace. _The Global Expansion of AI Surveillance._ (Sept. 2019). https://carnegieendowment.org/files/WP-Feldstein-AISurveillance_final1.pdf

[3641] Ibid.

[3642] SDAIA, _Tabaud,_ https://tabaud.sdaia.gov.sa/indexEn

private sector employees and Tabaud[3643] to notify citizens when they have come in contact with someone who was infected with the virus., MIT Technology Review reported that Tabaud is transparent, voluntary, and minimizes data collection.[3644]

Smart Cities

The Kingdom initiated a smart city project called Neom. Neom "is an international project that will be led, populated and funded by people from all over the world." Neom will be a "semi-autonomous region with its own government and laws" in northwest Saudi Arabia on the Red Sea and home to one million people by 2030.[3645] Neom is envisioned to become a city that "will introduce a new model for urbanization and sustainability," built on five principles: sustainability, community, technology, nature, and livability.[3646]

In 2022, the head of the Saudi Data and Artificial Intelligence Authority announced the plans of the Kingdom to build 200 smart cities. The plan will involve the Ministry of Municipal and Rural Affairs and Housing, SDAIA, and the Royal Commission for Riyadh City.[3647]

Lethal Autonomous Weapons

KSA is not a signatory of the Joint Statement ln Lethal Autonomous Weapons of 2022[3648] and has not acceded to the Convention. The country does support the negotiation of a legally-binding instrument on autonomous weapons systems. The country is a High Contracting Party to the Convention on Certain Conventional Weapons (CCW)[3649]. The country has

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[3643] SDAIA, *Tawakkalna,* https://ta.sdaia.gov.sa/En/
[3644] MIT Technology Review, *COVID Tracing Tracker* (May 7, 2020), https://www.technologyreview.com/2020/05/07/1000961/launching-mittr-covid-tracing-%20tracker/
[3645] NEOM, *FAQ,* https://www.neom.com/en-us/static/pdf/en/NEOM_FAQ_EN.pdf
[3646] NEOM, *Brochure*, https://www.neom.com/en-us/static/pdf/en/NEOM_BROCHURE_EN.pdf
[3647] Fast Company Middle East, *KSA to build 200 smart cities and automate 4,000 factories,* (Sep 15, 2022), https://fastcompanyme.com/news/ksa-to-build-200-smart-cities-and-automate-4000-factories/
[3648] CCW. *Joint Statement on Lethal Autonomous Weapons Systems First Committee.* 77th United Nations General Assembly. Conventional Weapons. (Oct. 21, 2022). https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf
[3649] United Nations. *High Contracting Parties and Signatories CCW.* (n.d.). https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/high-contracting-parties-and-signatories-ccw/

participated in some meetings of the Group of Governmental Experts (GGE) on Lethal Autonomous Weapons since 2014.[3650]

Saudi Arabia is a member of two groups that support the negotiation of a legally-binding instrument on autonomous weapons systems: The Arab Group within the United Nations and the Non-Aligned Movement (NAM). The NAM issued a statement during the 2020 UN General Assembly on the "need to pursue a legally binding instrument on autonomous weapons systems." The Kingdom has not issued any individual statement in this regard.

Saudi Arabia was a signatory [3651] of the Call for Action at REAIM (Responsible AI in the Military Domain) on February 2023 in The Hague[3652].

Human Rights

Freedom House scored Saudi Arabia as a "Not Free" country (7/100),[3653] With low marks on civil liberties and political rights. Freedom House reports, "Saudi Arabia's absolute monarchy restricts almost all political rights and civil liberties. No officials at the national level are elected. The regime relies on pervasive surveillance, the criminalization of dissent appeals to sectarianism and ethnicity, and public spending supported by oil revenues to maintain power." Internet freedoms in Saudi Arabia remained highly restricted, despite the plans of the authority to digitize and expand internet connectivity across the country, as well as to regulate the online sphere increasingly. [3654]

Saudi Arabia is a member of the United Nations and hence is bound to commit to uphold human rights standards, including those laid out in the

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[3650] Automated Research, *State Positions: Saudi Arabia* (2023), https://automatedresearch.org/news/state_position/saudi-arabia/

[3651] Government of Netherlands. REAIM 2023 Endorsing Countries. (Feb 15,-16, 2023) https://www.government.nl/binaries/government/documenten/publications/2023/02/16/reaim-2023-endorsing-countries/Endorsing+countries_21022023.pdf

[3652] Government of Netherlands. *Call to action on responsible use of AI in the military domain.* (Feb 16, 2023). https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

[3653] Freedom House, *Freedom in the World: Saudi Arabia (2022)* https://freedomhouse.org/country/saudi-arabia/freedom-world/2022

[3654] Freedom House. *Freedom On the Net Report* (2022). https://freedomhouse.org/country/saudi-arabia/freedom-net/2022

(UDHR).[3655] Saudi Arabia was one of the eight countries[3656] and sole abstainer on the Declaration among Muslim nations, stating that it violated Sharia law.[3657] The Kingdom is not a Party to the International Convention on Civil and Political Rights (ICCPR) and has not acceded or ratified the International Covenant on Economic, Social and Cultural Rights (ICSECR)[3658]

The Kingdom of Saudi Arabia is one of the 47 members of the Human Rights Council,[3659] a position that the country lost in 2020, amid the reports of human rights violations in the country.[3660] The monitoring of KSA human rights activities and reports, are under the OHCHR Regional Office of the Middle East and North Africa (MENA) created in 2002.[3661] The Human Rights Commission in KSA was founded in 2005 with " full independence in the exercise of its tasks for which it was established and stipulated in its organization." The Commission states that it "aims to protect and promote human rights in accordance with international human rights in all fields, raising awareness of them and contributing to ensuring that this is implemented in light of the provisions of Islamic Sharia."[3662]

OECD / G20 AI Principles

The Kingdom of Saudi Arabia is a member of the G20, and endorsed the OECD/G20 AI Principles. The country has demonstrated efforts for the implementation of the Principles, through submission of reports to the

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[3655] Human Right Watch, International Human Rights Standards, https://www.hrw.org/reports/1997/saudi/Saudi-07.htm
[3656] NPR, *Boundlessly Idealistic, Universal Declaration of Human rights is Still Resisted,* (Dec 10, 2018), https://www.npr.org/2018/12/10/675210421/its-human-rights-day-however-its-not-universally-accepted
[3657] Human Rights Watch, Saudi Arabia: Human Rights Developments, https://www.hrw.org/reports/1992/WR92/MEW2-02.htm
[3658] Human Rights Watch, Saudi Arabia: Human Rights Developments, https://www.hrw.org/reports/1992/WR92/MEW2-02.htm
[3659] OHCHR, *Membership of the Human Rights Council,* (2023), https://www.ohchr.org/en/hr-bodies/hrc/membership
[3660] Natasha Turak, *Saudi Arabia loses vote to stay on UN Human Rights Council; China, Russia and Cuba win seats,* CNBC (Oct. 14, 2020), https://www.cnbc.com/2020/10/14/saudi-arabia-loses-vote-for-un-human-rights-council-seat-china-russia-win.html ; Freedom Forward, *Boycotting the Saudi G20: Our Successes* (Nov. 16, 2020), https://freedomforward.org/2020/11/16/boycotting-the-saudi-g20-our-successes/
[3661] OHCHR, *Countries & Territories- Saudi Arabia,* (2023), https://www.ohchr.org/en/countries/saudi-arabia
[3662] Kingdom of Saudi Arabia, *Human Rights Commission,* https://hrc.gov.sa/en-us/aboutHRC/AboutHRC/Pages/HRCvision.aspx.

OECD AI Observatory about implementation, including the National Data and AI Strategy, National Centre of AI, Personal Data Protection Law, Saudi Data and AI Authority.[3663]   The OECD also makes note of KSA's National Center for AI (NCAI) and highlights SDAIA's work towards trustworthy AI in health.[3664]

In 2020, Saudi Arabia hosted the Meeting of the G-20 Digital Economy Ministers in Riyadh, where AI policy was a focal point of discussion. The KSA Digital Economy Task Force released a new report on the implementation of AI cases that mapped to the OECD AI Principles during this meeting.[3665] The key agenda set by the Saudi government comprised: "Empowering People, by creating the conditions in which all people – especially women and youth – can live, work and thrive"; "Safeguarding the Planet, by fostering collective efforts to protect our global commons"; and "Shaping New Frontiers, by adopting long-term and bold strategies to share benefits of innovation and technological advancement."[3666,3667]

The G20 Leaders Declaration read: "We will continue to promote multi-stakeholder discussions to advance innovation and a human-centered approach to Artificial Intelligence (AI), taking note of the Examples of National Policies to Advance the G20 AI Principles. We welcome both the G20 Smart Mobility Practices, as a contribution to the well-being and resilience of smart cities and communities, and the G20 Roadmap toward a Common Framework for Measuring the Digital Economy."[3668]

[3663] OECD.AI, *National Data and AI Strategy, Saudi Arabia,* (2020), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26934

[3664] G20 Digital Economy Task Force, *Examples of National AI Policies* (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf

[3665] OECD G20 Digital Economy Task Force, *Examples of AI National Policies* (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf

[3666] SDG Knowledge Hub, *G20 Digital Economy Ministers Meeting,* July 2020, https://sdg.iisd.org/events/g20-digital-economy-ministers-meeting/

[3667] G20 Saudi Arabia, https://g20.org/en/Pages/home.aspx. [Editorial note: At the time of publication, we found that the materials from the G20 summit that were available shortly after the Summit concluded, including the Leaders Declaration, were no longer available at the G20 website. Fortunately, copies of these documents are archived and available at the Internet Archive, https://web.archive.org]

[3668] G20 Riyadh Summit, *Leaders Declaration* (Nov. 21-22, 2020), https://g20.org/en/media/Documents/G20%20Riyadh%20Summit%20Leaders%20Declaration_EN.pdf

UNESCO Recommendation on the Ethics of Artificial Intelligence

As a UNESCO member-State since 1946,[3669] Saudi Arabia was one of 193 that endorsed the UNESCO Recommendation on AI Ethics in November 2021. The country was one of the States cooperating in the initial draft with experts of Saudi data and Artificial Intelligence Authority (SDAIA).[3670]

Saudi Arabia is a member of the Groups of Friends of UNESCO, created in February 2022 as an open initiative to support the implementation of the recommendations and to exchange good practices. On October 2022, UNESCO published titled, "Implementation of the Recommendation on Ethics of AI"[3671] proposed by the Group of Friends: Cook Islands, Kuwait, Kuwait (chair of the Group of Friends), Liberia, Libya, Morocco, Netherlands, Oman, Saudi Arabia, and Togo.

On October 2022, KSA announced a public consultation for the AI Ethics Principles. The code of ethics was launched during the 2nd World Summit on AI in Riyadh by the Saudi Data and Artificial Intelligence Authority (SDAIA) to be a practical guide to incorporating AI ethics throughout the AI system development life cycle. The release of these principles demonstrates the commitment of KSA to the implementation of the recommendations. Saudi Arabia and the Arab States are part of UNESCO activities in the region to achieve a unified view of Artificial intelligence.[3672]

Evaluation

Saudi Arabia has emerged as an influential leader among the G20 countries, the Arab region, and a powerful AI economic force globally. As a member of the Digital Cooperation Organization (DCO), the Kingdom achieved the endorsement of the RAICA Call for Action at the Global AI Summit in 2022 and announced a public consultation for AI Ethics Principles.

[3669] UNESCO, *Member States: Saudi Arabia,* (2023), https://www.unesco.org/en/countries/sa

[3670] AlJundi, *Saudi Arabia launches AI Ethics Principles,* (Oct 1, 2022), https://www.aljundi.ae/en/artificial-intelligence/saudi-arabia-launches-ai-ethics-principles/

[3671] UNESCO. *Implementation of the Recommendation on Ethics of AI* (Oct 2022), https://unesdoc.unesco.org/ark:/48223/pf0000382931

[3672] UNESCO, *Towards a common Artificial Intelligence strategy for Arab States: Digital Inclusion Week 2021*, (Dec 11, 2021), https://www.unesco.org/en/articles/towards-common-artificial-intelligence-strategy-arab-states-digital-inclusion-week-2021

The publication of the National Data and AI Strategy, the public consultation for the AI Ethics Principles, and the readily available documentation about related policies and strategies for AI show a positive intent of the country to involve the constituents in this process. The Kingdom is keen to achieve its national vision and strategies related to adopting artificial intelligence technologies, encouraging research, development and innovation, raising awareness and promoting economic growth to achieve the desired prosperity and development.

Areas of opportunity exist in the endorsement of international agreements in the area of Data Protection. The enactment of the new Personal Data Protection Law and Regulations addresses the rights related to automated decision-making, however, specific algorithmic transparency laws are yet to be formulated. While Saudi Arabia was accepted as an Observer member of the Global Privacy Assembly, the absence of endorsement of the Global Privacy Assembly (GPA) resolutions is still an area of attention. Independent oversight of AI policy is another necessary next step. Reports about the use of mass surveillance mechanisms are areas of concern.

Singapore

National AI Strategy

Singapore's National AI Strategy was announced in 2019, with the objective for Singapore to be a leader in developing and deploying scalable, impactful AI solutions, in key sectors of high value and relevant to its citizens and businesses, by 2030. The Strategy is part of Singapore's Smart Nation plan. Smart Nation aims to "transform Singapore through technology".[3673] The "vision is that a digital-first Singapore is one where a Digital Government, Digital Economy and Digital Society harness technology to effect transformation in health, transport, urban living, government services and businesses."

The Strategy envisions Singapore as a global hub for developing, test-bedding, deploying, and scaling AI solutions, with (1) the government and businesses using AI to generate economic gains and improve lives, (2) Singaporeans understanding AI technologies and the benefits it can bring, and (3) the workforce being equipped with the necessary competencies to participate in the AI economy.

The National AI Strategy is a continuation of the regulatory approach to AI adopted by Singapore. In terms of ethics, the national AI strategy refers to the role of the Advisory Council on the Ethical Use of AI and Data. Singapore established the Advisory Council on the Ethical Use of AI and Data[3674] one year before releasing the strategy. The Council is chaired by the former Attorney-General of Singapore V.K. Rajah SC, and its members comprise "international leaders in AI such as Google, Microsoft and Alibaba; advocates of social and consumer interests; and leaders of local companies who are keen to make use of AI."[3675] The Council advises the Government on issues arising from the commercial deployment of AI that may require policy or regulatory attention, and

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[3673] Smart Nation Singapore, *National Artificial Intelligence Strategy* (2019), https://www.smartnation.gov.sg/initiatives/artificial-intelligence/
[3674] Personal Data Protection Commission, *Singapore's Approach to AI Governance,* https://www.pdpc.gov.sg/help-and-resources/2020/01/model-ai-governance-framework
[3675] Infocomm Media Development Authority, *Composition of the Advisory Council on the Ethical use of Artificial Intelligence ("AI") and Data*, https://www.imda.gov.sg/content-and-news/press-releases-and-speeches/archived/imda/press-releases/2018/composition-of-the-advisory-council-on-the-ethical-use-of-ai-and-data. The full list of Advisory Council members can be found at https://www.imda.gov.sg/-/media/Imda/Files/About/Media-Releases/2018/Annex-A---Council-Members-of-the-Advisory-Council-on-the-Ethical-use-of-AI-and-Data.pdf.

industry on the responsible development and deployment of AI.[3676] The Council also assists the Government in developing voluntary codes of practice to guide corporate decision-makers, monitoring consumers' acceptance of such data use, and making recommendations on ethical and legal issues that may require policy or regulatory changes.[3677]

In 2019, the Personal Data Protection Commission Singapore (PDPC) released the Model AI Governance Framework at the World Economic Forum.[3678] The Model Framework is the first in Asia to provide details and readily implementable guidance to private sector organizations to address key ethical and governance issues when deploying AI solutions. In the foreword to the second edition, in 2020, S. Iswaran, the Minister for Communications and Information then, noted that "[o]ver the last two years, governments and international organisations have begun issuing principles, frameworks and recommendations on AI ethics and governance. (…) The Model Framework's unique contribution to the global discourse on AI ethics lies in translating ethical principles into practical recommendations that organisations could readily adopt to deploy AI responsibly. (…) This edition incorporates the experiences of organisations that have adopted AI, and feedback from our participation in leading international platforms, such as the European Commission's High-Level Expert Group and the OECD Expert Group on AI. Such input has enabled us to provide clearer and effective guidance for organisations to implement AI responsibly."[3679]

The Model Framework is based on two guiding principles: "Decisions made by AI should be explainable, transparent and fair"; "AI systems should be human-centric." These principles are operationalized through recommendations grouped into four clusters:

(1) "Internal governance structures and measures", with "clear roles and responsibilities in your organization"; "SOPs to monitor and manage risks"; and "staff training."

[3676] Smart Nation Singapore, *National Artificial Intelligence Strategy* (2019), p. 64 https://www.smartnation.gov.sg/initiatives/artificial-intelligence/
[3677] IMDA Singapore, *The full composition of Singapore's Advisory Council on the Ethical Use of AI and Data (Advisory Council) was announced by Minister for Communications and Information Mr S Iswaran at AI Singapore's first year anniversary* (Aug. 30, 2018), https://www.imda.gov.sg/content-and-news/press-releases-and-speeches/archived/imda/press-releases/2018/composition-of-the-advisory-council-on-the-ethical-use-of-ai-and-data
[3678] IMDA and PDPC Singapore, *Model AI Governance Framework, 2nd Edition* (2020), https://www.pdpc.gov.sg/-/media/files/pdpc/pdf-files/resource-for-organisation/ai/sgmodelaigovframework2.pdf
[3679] Ibid., p. 8.

(2) "Determining the level of human involvement in AI-augmented decision-making" with an "appropriate degree of human involvement" and "minimi[zation of] the risk of harm to individuals."

(3) "Operations management", which includes "minimi[zing] bias in data and model" and a "risk-based approach to measures such as explainability, robustness and regular tuning."

(4) "Stakeholder interaction and communication" which consists in "mak[ing] AI policies known to users" and "allow[ing] users to provide feedback, if possible."

Regarding its scope of application, the Model Framework Preamble clarifies that the "Model Framework is:

a. Algorithm-agnostic. It does not focus on specific AI or data analytics methodology. It applies to the design, application and use of AI in general.

b. Technology-agnostic. It does not focus on specific systems, software or technology, and will apply regardless of development language and data storage method.

c. Sector-agnostic. It serves as a baseline set of considerations and measures for organisations [whether public or private] operating in any sector to adopt. (…)

d. Scale- and Business-model-agnostic. It does not focus on organisations of a particular scale or size. It can also be used by organisations engaging in business-to-business or business-to-consumer activities and operations, or any other business model."[3680]

In January 2020, Singapore's Info-communications Media Development Authority (IMDA) and the PDPC, in partnership with the World Economic Forum Centre for the Fourth Industrial Revolution, released an "Implementation and Self-Assessment Guide for Organisations" (ISAGO). The ISAGO complements the Model Framework by allowing organizations to assess the alignment of their AI governance practices with the Model Framework, while providing industry examples and practices.[3681]

In October 2020, the Singapore Computer Society (SCS), supported by IMDA, launched the AI Ethics and Governance Body of Knowledge (AI E&G BoK). The AI E&G BoK is expected to "guide the development of curricula on AI ethics and governance and form the basis of future training

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[3680] Ibid., p. 10.

[3681] IMDA and PDPC Singapore, *Companion to the Model AI Governance Framework – Implementation and Self-Assessment Guide for Organizations* (Jan. 2020), https://www.pdpc.gov.sg/-/media/Files/PDPC/PDF-Files/Resource-for-Organisation/AI/SGIsago.pdf

and certification for professionals." The document underlines that "accountability, transparency, explainability, and audibility must become the hallmark of all AI solutions" and that "ethical guidelines should not be an afterthought but integrated as part of standards and expectations from the onset of any AI-related effort."[3682]

On 25 May 2022, at the World Economic Forum's Annual Meeting in Davos, "Singapore's Minister for Communications and Information, Josephine Teo, announced the launch of A.I. Verify, a voluntary Artificial Intelligence (AI) governance testing framework and toolkit that verifies the performance of an AI system against the developer's claims and with respect to internationally accepted AI ethics principles."[3683] A.I. Verify is currently available as a Minimum Viable Product (MVP). The aim of A.I. Verify is to build trust in AI through transparency.[3684] With the MVP, Singapore hopes to achieve three objectives. First, to enable trust-building between businesses and their stakeholders. A.I. Verify helps companies be more transparent about what their AI systems can or cannot do and keeps stakeholders better informed of what the AI systems they interact with are capable of. Developers and owners can verify the claimed performance of their AI systems against a set of principles through standardized tests. A.I. Verify packages a set of open-source testing solutions together, including a set of process checks into a Toolkit for self-assessment. Areas covered include: (1)Transparency: On the use of AI to achieve what stated outcome; Understanding how the AI model reaches a decision; Whether the decisions predicted by the AI show unintended bias; (2) Safety and resilience of AI systems; (3) Accountability and oversight of AI systems. Second, to facilitate the interoperability of AI governance frameworks. This is helpful for businesses that offer AI-enabled products and services in multiple markets. Lastly, to contribute to the development of international AI

[3682] The Singapore Computer Society, *Artificial Intelligence Ethics & Governance Body of Knowledge* (2020) https://www.scs.org.sg/bok/ai-ethics

[3683] OECD.AI Policy Observatory, *Singapore's A.I. Verify builds trust through transparency*, https://oecd.ai/en/wonk/singapore-ai-verify

[3684] IMDA Singapore, *Singapore launches world's first AI testing framework and toolkit to promote transparency; Invites companies to pilot and contribute to international standards development* (May 25, 2022), https://www.imda.gov.sg/Content-and-News/Press-Releases-and-Speeches/Press-Releases/2022/Singapore-launches-worlds-first-AI-testing-framework-and-toolkit-to-promote-transparency-Invites-companies-to-pilot-and-contribute-to-international-standards-development

standards.[3685] Singapore participates as a member of ISO/IECJTC1/SC42 on artificial intelligence.[3686]

The Pilot Testing Framework and Toolkit does not define ethical standards, and validates AI system developer's/owner's claims about the approach, use, and verified performance of their AI systems. It does not guarantee that any AI system tested under the Pilot Framework will be free from risks or biases or is completely safe.

In 2018, the Monetary Authority of Singapore (MAS) and the financial industry co-created a set of principles to guide the responsible use of AI, focusing on Fairness, Ethics, Accountability, and Transparency (FEAT).[3687] The principles have established a standard across the financial sector in Singapore. Subsequently in November 2019, the MAS announced that it had partnered the financial industry to create a framework for the responsible use of AI and Data Analytics (AIDA), known as Veritas.[3688] Veritas aims to provide financial institutions with a verifiable way to incorporate the FEAT principles into their AIDA solutions, and will comprise open source tools that can be applied to different business lines.[3689] The FEAT principles and Veritas are part of Singapore's National AI Strategy.[3690] In May 2020, MAS announced the scope of Veritas Phase 1 and the consortium members, and in January 2021, the Phase 2 consortium members.[3691]

[3685] OECD.AI Policy Observatory, *Singapore's A.I. Verify builds trust through transparency*, https://oecd.ai/en/wonk/singapore-ai-verify

[3686] https://www.iso.org/committee/6794475.html

[3687] Monetary Authority of Singapore, *Principles to Promote Fairness, Ethics, Accountability and Transparency (FEAT) in the Use of Artificial Intelligence and Data Analytics in Singapore's Financial Sector* (2018) https://www.mas.gov.sg/~/media/MAS/News%20and%20Publications/Monographs%20and%20Information%20Papers/FEAT%20Principles%20Final.pdf

[3688] Monetary Authority of Singapore, *MAS Partners Financial Industry to Create Framework for Responsible Use of AI*, https://www.mas.gov.sg/news/media-releases/2019/mas-partners-financial-industry-to-create-framework-for-responsible-use-of-ai

[3689] Monetary Authority of Singapore, *MAS Partners Financial Industry to Create Framework for Responsible Use of AI*, https://www.mas.gov.sg/news/media-releases/2019/mas-partners-financial-industry-to-create-framework-for-responsible-use-of-ai

[3690] Monetary Authority of Singapore, *MAS Partners Financial Industry to Create Framework for Responsible Use of AI*, https://www.mas.gov.sg/news/media-releases/2019/mas-partners-financial-industry-to-create-framework-for-responsible-use-of-ai

[3691] Monetary Authority of Singapore, *Veritas Initiative*, https://www.mas.gov.sg/schemes-and-initiatives/veritas

In October 2021, the Ministry of Health (MOH) published the Artificial Intelligence in Healthcare Guidelines (AIHGle), which it co-developed together with the Health Sciences Authority (HSA) and the Integrated Health Information Systems (IHiS). AIHGle aims to share good practices with AI developers (e.g., manufacturers, companies) and AI implementors (e.g., healthcare institutions – hospitals, clinics, laboratories), and complements the existing HSA regulatory requirements of AI Medical Devices.[3692]

In February 2023, Singapore's Minister for Communications and Information, Josephine Teo, announced the planned issuance of Advisory Guidelines on the Use of Personal Data in AI Systems later in 2023.[3693] According to the Minister, the Guidelines will encourage AI users to abide by standards of transparency and explainability, so that customers will know when and how AI is being used to process their personal data. It will also contain best practices on how the industry can use personal data to train, test, and monitor AI systems.

Public Participation

"The formation of the Advisory Council [on the Ethical Use of AI and Data] is one of three structured, interlinked initiatives to support the engagement of stakeholders to collaboratively develop a trusted and vibrant AI ecosystem and position Singapore as a leading hub for AI."[3694] The Council assists the Infocomm Media Development Authority (IMDA) in engaging stakeholders on issues that support the development of AI governance capabilities and frameworks, including engaging ethics boards of commercial enterprises on ethical and related issues arising from private sector use of AI and data, consumer representatives on consumer expectations and acceptance of the use of AI, and members of the private

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[3692] Ministry of Health, *Artificial Intelligence in Healthcare*, https://www.moh.gov.sg/licensing-and-regulation/artificial-intelligence-in-healthcare
[3693] Ministry of Communications and Information, *Speech by Mrs Josephine Teo, Minister of Communications and Information, at the Ministry of Communications and Information Committee of Supply Debate on 28 February 2023*, https://www.mci.gov.sg/pressroom/news-and-stories/pressroom/2023/2/speech-by-mrs-josephine-teo-minister-of-communications-and-information-at-the-ministry-of-communications-and-information-committee-of-supply-debate-on-28-february-2023
[3694] Infocomm Media Development Authority, *Composition of the Advisory Council on the Ethical use of Artificial Intelligence ("AI") and Data*, https://www.imda.gov.sg/content-and-news/press-releases-and-speeches/archived/imda/press-releases/2018/composition-of-the-advisory-council-on-the-ethical-use-of-ai-and-data

capital community on the need to incorporate ethical considerations in their investment decisions into businesses which develop or adopt AI.[3695]

A public consultation was also held for the initial version of Singapore's Model AI Governance Framework[3696] and the Council obtained industry views and advised the Government in developing and updating the Model Framework.[3697]

Similarly, ISAGO and its Compendium of Use Cases were developed in close consultation with the industry, with contributions from over 60 organizations, as well as input from the Council.[3698]

The AI E&G BoK, which contains 25 case studies /use-cases, was contributed to by 30 authors from both the public and private sectors.[3699]

The Smart Nation and Digital Government Office (SNDGO), under the Prime Minister's Office (PMO), provides publicizes information about key Smart Nation projects and government digital transformation on its website.[3700]

Data Protection and Algorithmic Transparency

The Personal Data Protection Act (PDPA) was enacted in 2012. It entered into force in stages, with the main data protection rules coming into

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[3695] Infocomm Media Development Authority, *Composition of the Advisory Council on the Ethical use of Artificial Intelligence ("AI") and Data*, https://www.imda.gov.sg/content-and-news/press-releases-and-speeches/archived/imda/press-releases/2018/composition-of-the-advisory-council-on-the-ethical-use-of-ai-and-data

[3696] Personal Data Protection Commission, *A Proposed Model AI Governance Framework for Public Consultation*, https://www.pdpc.gov.sg/news-and-events/announcements/2019/01/a-proposed-model-ai-governance-framework-for-public-consultation

[3697] Ministry of Communications and Information, *Parliament Sitting on 3 February 2020: Question for Written Answer*, https://www.mci.gov.sg/pressroom/news-and-stories/pressroom/2020/2/mci-response-to-pq-on-the-work-of-the-advisory-council-on-the-ethical-use-of-ai-and-data

[3698] Ministry of Communications and Information, *Parliament Sitting on 3 February 2020: Question for Written Answer*, https://www.mci.gov.sg/pressroom/news-and-stories/pressroom/2020/2/mci-response-to-pq-on-the-work-of-the-advisory-council-on-the-ethical-use-of-ai-and-data; Infocomm Media Development Authority, *Singapore and World Economic Forum driving AI Adoption and Innovation*, https://www.imda.gov.sg/Content-and-News/Press-Releases-and-Speeches/Press-Releases/2020/Singapore-and-World-Economic-Forum-driving-AI-Adoption-and-Innovation

[3699] Singapore Computer Society, *About the BoK*, https://www.scs.org.sg/bok/ai-ethics?document=about

[3700] Smart Nation Singapore, *Smart Nation Digital Government Group*, https://www.smartnation.gov.sg/about-smart-nation/sndgg

force in July 2012. A suite of amendments to the PDPA was passed in November 2020. They started taking effect in phases, from February 2021.

The PDPA governs the collection, use, disclosure, and care of personal data in Singapore. It provides a baseline standard of protection for personal data.[3701] It complements sectoral laws and regulations such as the Banking Act and Insurance Act. The PDPA recognizes both the right of individuals to protect their personal data, and the need of organizations to collect, use, or disclose personal data for "legitimate and reasonable purposes".[3702] It aims to strengthen Singapore's position as a trusted hub for businesses, by regulating the flow of personal data among organizations.[3703]

The PDPA applies to private sector organizations. [3704] Data management in the public sector is governed by the Public Sector (Governance) Act and the Government Instruction Manual on Infocomm Technology & Smart Systems Management.[3705]

The Personal Data Protection Commission (PDPC) was established in January 2013 to administer and enforce the PDPA.[3706] The PDPC is currently part of the IMDA.[3707]

The functions of the Commission include: "to administer and enforce" the PDPA; "to promote awareness of data protection in Singapore"; "to provide consultancy, technical, managerial or other specialist services relating to data protection"; "to conduct research and studies and promote educational activities relating to data protection"; "to represent the Government internationally on matters relating to data

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[3701] Personal Data Protection Commission, *PDPA Overview,*
https://www.pdpc.gov.sg/Overview-of-PDPA/The-Legislation/Personal-Data-Protection-Act
[3702] Personal Data Protection Commission, *PDPA Overview,*
https://www.pdpc.gov.sg/Overview-of-PDPA/The-Legislation/Personal-Data-Protection-Act
[3703] Personal Data Protection Commission, *PDPA Overview,*
https://www.pdpc.gov.sg/Overview-of-PDPA/The-Legislation/Personal-Data-Protection-Act
[3704] Smart Nation Singapore, *Government's Personal Data Protection Laws and Policies*,
https://www.smartnation.gov.sg/about-smart-nation/secure-smart-nation/personal-data-protection-laws-and-policies
[3705] Smart Nation Singapore, *Government's Personal Data Protection Laws and Policies*,
https://www.smartnation.gov.sg/about-smart-nation/secure-smart-nation/personal-data-protection-laws-and-policies
[3706] Personal Data Protection Commission, *PDPA Overview,*
https://www.pdpc.gov.sg/Overview-of-PDPA/The-Legislation/Personal-Data-Protection-Act
[3707] Infocomm Media Development Authority, *Personal Data Protection*,
https://www.imda.gov.sg/about-imda/data-protection/personal-data-protection

protection"; and "to manage technical cooperation and exchange in the area of data protection with other organisations, including foreign data protection authorities and international or inter-governmental organisations, on its own behalf or on behalf of the Government."

Singapore is leading the efforts to develop an ASEAN Framework on Digital Data Governance to facilitate the harmonization of data regulations.[3708]

The PDPC is not a member of the Global Privacy Assembly (GPA), but IMDA and the PDPC have previously participated in the GPA as non-members.[3709] Singapore did not endorse the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[3710] the 2020 GPA Resolution on AI Accountability,[3711] and the 2022 GPA Resolution on Facial Recognition Technology.[3712]

In its 2018 "Discussion Paper on Artificial Intelligence (AI) and Personal Data – Fostering Responsible Development and Adoption of AI", the PDPC noted that "[t]he benefits and risks of AI have been the subject of great public debate. On the one hand, AI has the ability to boost productivity, transform businesses, grow the economy and enhance people's lives. On the other hand, AI may displace jobs and pose ethical challenges such as social profiling." The PDPC recommended for AI systems to be human-centric, and for decisions to be made by or with the assistance of AI should be explainable, transparent, and fair.[3713]

[3708] Smart Nation Singapore, *The Way Forward* (June 2, 2020). https://smartnation-strategy.opendoc.sg/08-strengthen-collaboration.html

[3709] Global Privacy Assembly, *List of Observers*, https://globalprivacyassembly.org/participation-in-the-assembly/list-of-observers/

[3710] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[3711] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[3712] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology (Oct. 2022)*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[3713] PDPC Singapore, *Discussion Paper on Artificial Intelligence (AI) and Personal Data – Fostering Responsible Development and Adoption of AI* (June 5, 2018) https://www.pdpc.gov.sg/-/media/Files/PDPC/PDF-Files/Resource-for-Organisation/AI/Discussion-Paper-on-AI-and-PD---050618.pdf

Singapore shares publicly available datasets[3714] from 70 public agencies, API libraries, and resources for application developers using these data sets. On the commercial side, the IMDA introduced a "Trusted Data Sharing Framework" [3715] as a guide to establishing safeguards and baseline "common data sharing language" and a systematic approach to understanding the broad considerations for establishing trusted data sharing partnerships. A Data Regulatory Sandbox[3716] is offered to businesses to pilot innovative use of data in a safe environment, in consultation with the IMDA and the PDPC. The IMDA also provides a Data Protection Trustmark (DPTM), a voluntary enterprise-wide certification for organizations to demonstrate accountable data protection practices.[3717]

AI-assisted Surveillance

Certain statutes in Singapore deal with aspects of privacy, but there is no discrete right to privacy that is protected under Singapore's Constitution.[3718] Singapore has not ratified the International Covenant on Civil and Political Rights[3719] which protects against arbitrary or unlawful interference with privacy, family, home, or correspondence. Government agencies are not able to access data held by the private sector except where the access has been authorised by law or by a court order.[3720] If a person believes that their personal data has been accessed unlawfully by any government agency, they can apply to the court for a judicial review of the agency's decisions or actions.[3721] The court may make a Mandatory Order obliging the government agency to exercise its duties, perform specific acts,

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[3714] Smart Nation Singapore, *Data Resources & APIs*, https://www.smartnation.gov.sg/resources/open-data/

[3715] IMDA and PDPC Singapore, *Trusted Data Sharing Framework* (2019) https://www.imda.gov.sg/-/media/Imda/Files/Programme/AI-Data-Innovation/Trusted-Data-Sharing-Framework.pdf

[3716] IMDA Singapore, *Data Sharing and Innovation,* https://www.imda.gov.sg/programme-listing/data-collaborative-programme

[3717] IMDA Singapore, *Data Protection Trustmark Certification*, https://www.imda.gov.sg/programme-listing/data-protection-trustmark-certification

[3718] *Bellingham v Reed* [2021] SGHC 125 at [72]. See also Privacy International, *Universal Periodic Review, Stakeholder Report: 24th Session, Singapore, The Right to Privacy in Singapore* (2015), https://privacyinternational.org/sites/default/files/2017-12/Singapore_UPR_PI_submission_FINAL.pdf

[3719] UN Human Rights Council, *Universal Periodic Review – Singapore, Outcome of the Review, Second Cycle* (2015), https://sso.agc.gov.sg/Acts-Supp/18-2019/Published/20190625?DocDate=20190625

[3720] See for example section 20 of the Criminal Procedure Code 2010.

[3721] See Attorney-General's Chambers Singapore, *Media Fact Sheet: Judicial Review Proceedings*, https://www.agc.gov.sg/docs/default-source/newsroom-doucments/media-releases/2012/mediafactsheetonjudicialreviewproceedings_31may2012.pdf

or consider exercising a discretionary power as required by law; or a Prohibiting Order, an injunctive order directed at a prospective act or decision that would be unlawful; or a Quashing Order that quashes or sets aside illegal decisions or acts.[3722] The Public Order Act[3723]'s definition of assembly and its requirements for a permit for such assembly has recently extended to online conferences. The government's use of online surveillance tools and power to act without the need for legal authorization is a matter of concern with regard to citizens' ability to exercise their rights of freedom of speech, expression, and assembly.

In 2003, Singapore launched SingPass. The National Digital Identity initiative[3724] is a personal authentication system that allows users to access various Government services. It is a move to digitalize all transactions in public and private spaces and share data. The app does provide the users with the option to use a 6-digit passcode if users do not want to utilize biometrics such as fingerprint or face recognition.

In 2020, Singapore introduced TraceTogether,[3725] a Covid-19 contact tracing application, advising that data would "never be accessed unless the user tests positive" for the virus.[3726] In January 2021, the Minister of State for Home Affairs clarified that under the Criminal Procedure Code, the Singapore Police Force can order anyone to produce data for the purpose of a criminal investigation, including TraceTogether data.[3727] In February 2021, the Covid-19 (Temporary Measures) (Amendment) Bill, restricted the

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[3722] Attorney-General's Chambers Singapore, *Media Fact Sheet: Judicial Review Proceedings*, https://www.agc.gov.sg/docs/default-source/newsroom-doucments/media-releases/2012/mediafactsheetonjudicialreviewproceedings_31may2012.pdf

[3723] *The Public Order Act*, https://sso.agc.gov.sg/act/poa2009

[3724] Smart Nation Singapore, *National Digital Identity*, https://www.smartnation.gov.sg/initiatives/strategic-national-projects/national-digital-identity

[3725] See more generally, A. Wee and M. Findlay, *AI and data use: Surveillance technology and community disquiet in the age of COVID-19*, SMU Centre for AI & Data Governance Research Paper No 2020/10 (Sept. 14, 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3715993

[3726] TraceTogether, *What data is collected? Are you able to see my personal data?*(2020)*, https://support.tracetogether.gov.sg/hc/en-sg/articles/360043735693-What-data-is-collected-Are-you-able-to-see-my-personal-data-

[3727] Smart Nation Singapore, *Clarification on the Usage of TraceTogether* Data, https://www.smartnation.gov.sg/media-hub/parliament/20210105/ https://www.straitstimes.com/singapore/politics/police-can-use-tracetogether-data-for-criminal-investigations-0

use of personal contact tracing data in criminal investigations to only serious crimes, such as murder and terrorism, was passed in Parliament.[3728]

According to the Singapore government, TraceTogether's technical design precludes its use as a surveillance tool.[3729] The Singapore government has explained that the data is always stored in a person's device in an encrypted form, and is automatically deleted after 25 days.[3730] It is only extracted when the person tests positive for Covid-19 and upon request by the health authorities to upload the data for contact tracing purposes.[3731]

On 9 February 2023, the Ministry of Health announced that the use of contact tracing systems including TraceTogether, were being stepped down due to Covid-19 measures being eased.[3732]

Facial Recognition

In August 2021, the Minister of State for Home Affairs advised that Singapore aims to have more than 200,000 police cameras by at least 2030, more than doubling its current use.[3733]

In September 2021, Singapore police started trialing patrol robots for surveillance, to detect "undesirable social behaviors" and displaying messages to educate the public on proper behavior.[3734]

In May 2022, the PDPC issued the **"Guide on Responsible Use of Biometric Data in Security Applications"** to help organizations such as Management Corporation Strata Title (MCST), building/premise owners,

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[3728] Kenny Chee, *Bill limiting police use of TraceTogether data to serious crimes passed.* The Straits Times, (Feb. 2, 2021), https://www.straitstimes.com/singapore/politics/bill-limiting-use-of-tracetogether-for-serious-crimes-passed-with-govt-assurances

[3729] Ministry of Foreign Affairs Singapore, *Singapore's reply to the letter from Special Rapporteur on the right to privacy Professor Joseph Cannataci on the thematic report on the management of pandemics with the respect to the right to privacy*, https://www.mfa.gov.sg/Overseas-Mission/Geneva/Mission-Updates/2021/09/Letter-SR-Right-to-Privacy-Umej-Bhatia-14-Sept-2021

[3730] Ibid.

[3731] Ibid.

[3732] The Straits Times, *TraceTogether users can uninstall app, return tokens at CCs from Feb 13*, https://www.straitstimes.com/singapore/health/tracetogether-safeentry-to-be-stepped-down-data-deleted

[3733] Reuters, *Singapore to double police cameras to more than 200,000 over next decade* (Aug. 4, 2021), https://www.reuters.com/world/asia-pacific/singapore-double-police-cameras-more-than-200000-over-next-decade-2021-08-04/

[3734] Reuters, *Singapore trials patrol robots to deter bad social behavior* (Sept. 6, 2021), https://www.reuters.com/technology/singapore-trials-patrol-robots-deter-bad-social-behaviour-2021-09-06/; Agence France Press, *'Dystopian world': Singapore patrol robots stoke fears of surveillance state*, (Oct. 6, 2021), https://www.theguardian.com/world/2021/oct/06/dystopian-world-singapore-patrol-robots-stoke-fears-of-surveillance-state

and security services companies, to ensure the responsible use of security cameras and biometric recognition systems to safeguard individuals' biometric data where it is collected, used or disclosed.[3735]

Singapore utilizes ABBSS (Automated Biometrics & Behavioral Screening Suite) at immigration and border checkpoints. The system is a network of cameras with facial recognition capabilities that can also be deployed as a body-worn cameras for officers. It is used both to build a biometrics database of travelers and detect travelers wanted for various offenses.[3736] By 2025, Singapore plans to establish a fully automated immigration clearance system for all travelers, including first-time social visitors.[3737] This includes using AI for retinal and face-recognition procedures which could potentially remove the need for passports.

Online Disinformation

The Protection from Online Falsehoods and Manipulation Act[3738] was introduced in 2019. Its aim is "to prevent the electronic communication in Singapore of false statements of fact, to suppress support for and counteract the effects of such communication, to safeguard against the use of online accounts for such communication and for information manipulation, to enable measures to be taken to enhance transparency of online political advertisements, and for related matters."[3739] The law applies to digital content that is accessible in Singapore, whether it is an online post, text, or chat message by a person or a bot. The law does not clearly define what is meant by "falsehood" and gives power to any government minister to declare that information posted online is "false" and instruct the correction or removal of such content if she thinks it is in the public interest to remove it.[11] A person found guilty of the offense can be fined or imprisoned.

[3735] PDPC Singapore, *Guide on the Responsible Use of Biometric Data in Security Applications* (May 2022), https://www.pdpc.gov.sg/help-and-resources/2022/05/guide-on-the-responsible-use-of-biometric-data-in-security-applications

[3736] Cara Wong, . *Facial recognition, biometrics tech at more checkpoints: ICA*, The Strait Times (Nov. 13, 2018), https://www.straitstimes.com/singapore/facial-recognition-biometrics-tech-at-more-checkpoints-ica

[3737] Yip Wai Yee,, *All immigration checkpoints to have fingerprint and face scans by 2025 as part of Singapore's AI push,* The Straits Times (Nov. 15, 2019), https://www.straitstimes.com/singapore/fingerprint-and-face-scans-at-all-immigration-checkpoints-by-2025-as-part-of-singapores-ai

[3738] Singapore Statutes Online, *Protection from Online Falsehoods and Manipulation Act 2019* https://sso.agc.gov.sg/Acts-Supp/18-2019/Published/20190625?DocDate=20190625

[3739] Ibid., Introductory section.

In October 2021, Singapore Parliament passed the Foreign Interference (Countermeasures) Bill (FICA).[3740] "The legislation provides measures to prevent, detect and disrupt foreign interference in our domestic politics conducted through (i) hostile information campaigns (HICs) and (ii) the use of local proxies." Among the tools and tactics used by these "hostile foreign actors" "to interfere in domestic political discourse, incite social tensions and undermine our sovereignty", are mentioned: "Using bots on social media platforms or taking out advertisements to artificially boost the reach of these messages;" "Using inauthentic accounts and bots in combination to engineer an artificial sense that there is strong public support or opposition to a certain position or sentiment;" "Inciting other users to "troll", harass or intimidate a particular target."[3741]

The Bill was adopted after a 10-hour debate and concerns were raised over the lack of public consultation.[3742] Under the new law, the Minister for Home Affairs is granted powers to issue directions to the Internet, social media service providers, and website operators to provide user information, block content, and remove applications. Authorities can also require politically significant persons to declare foreign affiliations. Recipients of directions or declarations may apply to the Minister for Home Affairs to vary or cancel the direction or declaration. If their application is refused, they may appeal to an independent Reviewing Tribunal which is chaired by a sitting Supreme Court Judge, and which has the authority to overrule the Minister.[3743]

Harmful Content

The Ministry of Communications and Information tabled the Online Safety (Miscellaneous Amendments) Bill for its first reading in Parliament

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[3740] https://www.mha.gov.sg/mediaroom/press-releases/hic-provisions-of-the-foreign-interference-countermeasures-act-to-take-effect-from-7-july-2022/
[3741] Ministry of Hime Affairs, *HIC Provisions of the Foreign Interference (Countermeasures) Act to Take Effect from 7 July 2022* (July 6, 2022), https://www.mha.gov.sg/mediaroom/press-releases/hic-provisions-of-the-foreign-interference-countermeasures-act-to-take-effect-from-7-july-2022/
[3742] Vanessa Lim, Ang Hwee Min, and Jalelah Abu Baker, *Parliament passes Bill to deal with foreign interference after 10-hour debate*, Channel News Asia (CAN) (Oct. 5, 2021), https://www.channelnewsasia.com/singapore/fica-parliament-singapore-foreign-interference-countermeasures-bill-2221236
[3743] Ministry of Home Affairs, *Introduction to Foreign Interference (Countermeasures) Act (FICA)*, https://www.mha.gov.sg/fica

on 3 October 2022. The Singapore Parliament passed the Online Safety Bill on 9 November 2022.[3744]

The aim of the Bill is to enhance online users' safety, particularly children, and to curb the spread of harmful content on Online Communication Services accessible to users in Singapore.[3745] The Bill covers online communication services "generated by a machine."[3746] Harmful content includes: sexual content, violent content, suicide and self-harm content; cyberbullying content; content endangering public health; content facilitating vice and organized crime[3747] Designated providers of such Online Communication Services will have to comply with Codes of Practice issued by the IMDA.

Lethal Autonomous Weapons

Singapore has not openly stated its position on banning fully autonomous weapons yet.[3748] Singapore did not endorse a joint statement on autonomous weapons systems at the October 2022 UN General Assembly. In this joint statement, 70 States urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[3749]

[3744] Singapore Parliament, *Bills Introduced: Online Safety (Miscellaneous Amendments) Bill* (Nov. 9, 2022), https://www.parliament.gov.sg/docs/default-source/default-document-library/online-safety-(miscellaneous-amendments)-bill-28-2022.pdf

[3745] Singapore Ministry of Communications and Information, *First Reading of Online Safety (Miscellaneous Amendments) Bill* (Oct. 3, 2022), https://www.mci.gov.sg/pressroom/news-and-stories/pressroom/2022/10/first-reading-of-online-safety-miscellaneous-amendments-bill

[3746] See "Meaning of "provider" of online communication service", 2D (2), *Online Safety (Miscellaneous Amendments) Bill* (Nov. 9, 2022), https://www.parliament.gov.sg/docs/default-source/default-document-library/online-safety-(miscellaneous-amendments)-bill-28-2022.pdf.

[3747] Singapore Ministry of Communications and Information, *First Reading of Online Safety (Miscellaneous Amendments) Bill* (October 3, 2022), https://www.mci.gov.sg/pressroom/news-and-stories/pressroom/2022/10/first-reading-of-online-safety-miscellaneous-amendments-bill

[3748] Campaign to Stop Killer Robots, *Country Views on Killer Robots* (March 11, 2020), https://www.stopkillerrobots.org/wp-content/uploads/2020/03/KRC_CountryViews_11Mar2020.pdf

[3749] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly*

Human Rights

Singapore has endorsed the Universal Declaration of Human Rights. However, it has not adopted several international human rights conventions such as the International Covenant on Civil and Political Rights,[3750] reasoning that it is not in a position to fully implement the obligations contained in these international treaties.

Singapore has an Inter-Ministerial Committee on Human Rights but no national human rights institution. In March 2021, the Minister for Home Affairs K Shanmugam said in Parliament that "regardless of which community, what your social, religious or sexual beliefs are, everyone will be protected here and I have said so categorically."[3751] He said that action could be taken under the Maintenance of Religious Harmony Act "if a religious group, using religion, attacks a non-religious group such as LGBT groups or individuals".[3752] Apart from this, there are no legal protections against discrimination based on sexual orientation or gender identity.[3753]

Freedom House rates Singapore as partly free.[3754] According to Freedom House, "Singapore's parliamentary political system has been dominated by the ruling People's Action Party (PAP) and the family of current prime minister Lee Hsien Loong since 1959. The electoral and legal framework that the PAP has constructed allows for some political pluralism, but it constrains the growth of credible opposition parties and limits freedoms of expression, assembly, and association." On transparency, Freedom House notes: "The government provides limited transparency on its operations. The Singapore Public Sector Outcome Review is published every two years and includes metrics on the functioning of the bureaucracy; regular audits of public-sector financial processes are also made accessible to the public."

Thematic Debate – Conventional Weapons (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

[3750] UN Human Rights Council, *Universal Periodic Review – Singapore, Outcome of the Review, Second Cycle* (2015), https://sso.agc.gov.sg/Acts-Supp/18-2019/Published/20190625?DocDate=20190625

[3751] CNA, *'Everyone will be protected here' regardless of community and social, religious or sexual 'beliefs': Shanmugam*, https://www.channelnewsasia.com/singapore/lgbtq-singapore-law-protected-religious-beliefs-shanmugam-249966

[3752] Ibid.

[3753] Human Rights Watch, *World Report 2020 – Singapore* (2020), https://www.hrw.org/world-report/2020/country-chapters/singapore

[3754] Freedom House, *Freedom in the World 2020 – Singapore* (2020), https://freedomhouse.org/country/singapore/freedom-world/2020

OECD / G20 AI Principles

Singapore is not a member of the OECD or the G20. However, the country is well aware of the OECD/G20 AI Principles. The OECD noted several significant examples of positive AI practices in Singapore.[3755] There is, for example, the Advisory Council on the Ethical Use of AI and Data, described above. The OECD also notes that the AI Governance Framework incorporates all of the OECD AI Principles.

Singapore is a founding member of the Global Partnership on AI (GPAI), built around a shared commitment to the OECD AI Principles.[3756] The Centre for AI & Data Governance in Singapore was established to develop international thought leadership and advance scholarship and discourse on legal, ethical, regulatory, and policy issues arising from the use of AI and data and inform the implementation of the G20 AI Principles.

UNESCO Recommendation on the Ethics of Artificial Intelligence

Singapore was one of the 193 member states that adopted the UNESCO Recommendation on the Ethics of Artificial Intelligence at the General Conference in November 2021.[3757] Since the adoption, Singapore has yet to make official announcements concerning the implementation of the UNESCO Recommendation on the Ethics of AI.

Evaluation

Singapore is one of the leaders in providing guidance for the ethical development of AI, providing regulatory sandboxes for testing responsible practices, and developing risk-based governance frameworks. It is focused on the voluntary adoption of these methods for both public and private use cases and did not pass any legislation to regulate artificial intelligence. Concerns exist regarding the use of AI technologies for surveillance purposes. In recent years, the Singapore Parliament passed new bills to regulate online content due to risks associated with harmful content and

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[3755] OECD G20 Digital Economy Task Force, *Examples of AI National Policies* (2020), https://www.dataguidance.com/legal-research/examples-ai-national-policies-report-g20-digital-economy-task-force

[3756] Government of France Diplomacy, *Launch of the Global Partnership on Artificial Intelligence by 15 founding members* (June 15, 2020), https://ww.diplomatie.gouv.fr/en/french-foreign-policy/digital-diplomacy/news/article/launch-of-the-global-partnership-on-artificial-intelligence-by-15-founding

[3757] UNESCO, *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (Nov. 25, 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence

disinformation. Concerns exist however with regard to the extent of the powers confer to public authorities without proper oversight or accountability, apart from judicial review. Singapore's data protection agency has significant responsibilities for data protection and a growing role in AI policy. Questions do remain about independent oversight of government AI systems. While Singapore has adopted the UNESCO Recommendation on the Ethics of AI, it has yet to make public announcements concerning the implementation of the UNESCO Recommendation.

Slovenia

National AI Strategy

  In May 2021, the Slovenian Government adopted the National program promoting the deployment of AI in the Republic of Slovenia by 2025 (NpAI).[3758] The NpAI lays out a detailed workplan for social and economic development, which includes specific indicators, guidance on measuring progress, and instruments for implementation and financing.[3759] The NpAI is part of the Slovenian Development Strategy 2030,[3760] which takes into account the digital transformation of society. "The fourth industrial revolution, which is characterised by the digital economy and the development of sensors, robotics and artificial intelligence, is creating new models of business, work and jobs, which demands the development of new knowledge and skills and adaptation in numerous areas of economy, society and the environment."[3761]

  The overarching strategy document for the development of the information society is the Digital Slovenia Strategy. "The strategy envisages actions aimed at eliminating the greatest development gaps in order to accelerate the digital transformation in all areas, increase the competitiveness of the country and the ICT industry, achieve the digitalisation of society, develop and build the digital infrastructure, improve cybersecurity, and promote the development of an inclusive information society."[3762] The objectives of the NpAI include the establishment of efficient support to research and deployment of artificial intelligence by enhanced and systematic networking of relevant stakeholders; the strengthening of technological and industrial capabilities in the field of artificial intelligence; answering to socio-economic changes such as changes in the labour market and education system; providing an

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[3758] Government of the Republic of Slovenia, *National Programme for the Promotion of the Development and Use of Artificial Intelligence in the Republic of Slovenia until 2025* (27 May 2021), pp 2-3., [AT] Original Slovenian version at
https://www.gov.si/assets/ministrstva/MJU/DID/NpUI-SI-2025.docx
[3759] Republic of Slovenia, *Digitalisation of Society*,
https://www.gov.si/en/topics/digitalisation-of-society/
[3760] Government of the Republic of Slovenia, *Slovenian Development Strategy 2030* (Dec. 7, 2017), https://www.gov.si/assets/vladne-sluzbe/SVRK/Strategija-razvoja-Slovenije-2030/Slovenian-Development-Strategy-2030.pdf
[3761] Government of the Republic of Slovenia, *Slovenian Development Strategy 2030* (Dec. 7, 2017), p. 10, https://www.gov.si/assets/vladne-sluzbe/SVRK/Strategija-razvoja-Slovenije-2030/Slovenian-Development-Strategy-2030.pdf
[3762] Republic of Slovenia, *Digitalisation of society*,
https://www.gov.si/en/topics/digitalisation-of-society/

appropriate ethical and legal framework and increasing citizens' trust in AI.[3763]

The Digital Slovenia Strategy is in the process of being renewed. The 2030 Strategy is expected to focus on digital inclusion, digital public services, smart digital transformation to achieve Society 5.0 (data, artificial intelligence…). "In addition, the strategy will also cover related content, such as a supportive environment, digital rights, better regulation, innovation, and a proposal for a Slovenian governance model for this area."[3764]

In her speech at the 2022 Ministerial Council of the Global Partnership on AI, the Minister Stojmenova Duh stated, "In Slovenia, we believe in human rights and a responsible approach to the development, deployment and use of artificial intelligence."[3765] With the NpAI, Slovenia commits to high quality, transparent and ethical AI in which citizens have confidence. The National programme mentions that a legal and ethical framework will be established in cooperation with European partners, based on existing European guidelines governing the ethical and legal aspects of the development and use of AI. It will be based on the universal values of the European Union and on human rights and fundamental freedoms, with an emphasis on privacy, dignity, the right to a fair trial, the protection of consumer rights and non-discrimination. The National programme also refers to the principles of human action and control, technical robustness and security, privacy and data management, transparency, diversity, fairness, social and environmental well-being, and accountability.

The NpAI was elaborated following Slovenia's commitment to work with other EU Member States "on the most important issues raised by Artificial Intelligence, from ensuring Europe's competitiveness in the research and deployment of AI, to dealing with social, economic, ethical and legal questions." Slovenia signed the 2018 EU Declaration on Cooperation on Artificial Intelligence.[3766] The NpAI is also consistent with

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[3763] OECD. AI Policy Observatory, *Slovenia's National Programme on AI*, https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-14677

[3764] Republic of Slovenia, *Digitalisation of society*, https://www.gov.si/en/topics/digitalisation-of-society/

[3765] Office of the Government of the Republic of Slovenia for Digital Transformation, *Minister Dr Stojmenova Duh stresses the importance of responsible regulation of artificial intelligence in Tokyo* (Nov. 30, 2022), https://www.gov.si/en/news/2022-11-30-minister-dr-stojmenova-duh-stresses-the-importance-of-responsible-regulation-of-artificial-intelligence-in-tokyo/

[3766] European Commission, *EU Member States sign up to cooperate on Artificial Intelligence* (Apr. 10, 2018),

the European Coordinated Plan on Artificial Intelligence 2021[3767] which operationalizes the Declaration. The NpAI objectives are supported in part by various EU funding programs[3768] such as the Horizon Europe programme for research and innovation, the Digital Europe Programme, the Connecting Europe Facility for digital infrastructure, the Recovery and Resilience Facility and the Structural funds. The NpAI also articulates specific support for Slovenian firms and institutions that develop standards in the field of AI and promotes collaboration with national, EU and international standardization organizations.[3769]

In the second half of 2021, Slovenia assumed the Presidency of the Council of the EU.[3770] In July 2021, discussing about the EU AI Act, the Minister of Justice, Marjan Dikaucic "said that the existing rules cannot provide answers to all the challenges brought by artificial intelligence, which is why it is necessary to take further steps in the creation of a legal framework."[3771] After the first debate on the European Parliament's proposed AI Act, the Slovenian Digital Minister Boštjan Koritnik announced that the EU AI act should "serve as a model across the globe, in the same vein as the general data protection regulation, GDPR, in the area of protection of personal data."[3772] He also stated, "we want to make sure that the Artificial Intelligence Act will achieve its twin aims of ensuring safety and respect for fundamental rights and stimulating the development

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https://digital-strategy.ec.europa.eu/en/news/eu-member-states-sign-cooperate-artificial-intelligence

[3767] European Commission, *Coordinated Plan on Artificial Intelligence 2021*, https://digital-strategy.ec.europa.eu/en/policies/plan-ai.

[3768] European Commission, *The Digital Europe Programme*, https://digital-strategy.ec.europa.eu/en/activities/digital-programme

[3769] Government of the Republic of Slovenia, *Slovenian Development Strategy 2030* (Dec. 7, 2017), https://www.gov.si/assets/vladne-sluzbe/SVRK/Strategija-razvoja-Slovenije-2030/Slovenian-Development-Strategy-2030.pdf

[3770] *Slovenian Presidency of the Council of the European Union, 1 July–31 December 2021*, https://www.gov.si/assets/vlada/Projekti/PSEU2021/The-programme-of-the-Slovenian-Presidency-of-the-Council-of-the-European-Union.pdf

[3771] Republic of Slovenia, *At the virtual conference held by the Ministry of Justice on the regulation of artificial intelligence, ethics and fundamental rights* (Aug. 21, 2021), https://www.gov.si/en/news/2021-07-21-at-the-virtual-conference-held-by-the-ministry-of-justice-on-the-regulation-of-artificial-intelligence-ethics-and-fundamental-rights/

[3772] Euronews, *EU's artificial intelligence law should serve as 'model across the globe'* https://www.euronews.com/2021/10/14/eu-s-artificial-intelligence-law-should-serve-as-model-across-the-globe

and uptake of AI-based technology in all sectors."[3773] At the end of the Slovenian Presidency of the Council of the European Union, a partial compromise draft of the EU AI Act was released.[3774] In the compromise text, general purpose AI systems have been excluded from the scope of the EU AI Act. So is national security, which remains the sole responsibility of each Member State. With regard to prohibited AI practices, the compromise text extends the prohibition of using AI for social scoring also to private actors, the use of real-time remote of biometric identification systems in publicly accessible spaces refers not only to law enforcement authorities but also other actors on their behalf; the prohibition of the use of AI systems that exploit the vulnerabilities of specific group of persons has been revised to cover persons who are vulnerable due to their social or economic situation. Regarding classification rules for high-risk AI systems, the interconnection between the legal regime provided for in the EU AI Act and the Annexes to the EU AI Act which lists the kind of AI systems concerned has been clarified.[3775]

Public Participation

Led by an inter-ministerial working group, the national program was the result of a series of multi-disciplinary consultations with national experts and industrial representatives through the ICT Association of Slovenia[3776] of the Chamber of Commerce and Industry of Slovenia,[3777] researchers and practitioners in the field of AI through the Slovenian Artificial Intelligence Society,[3778] and stakeholders of the Strategic Research and Innovation Partnerships on Smart Cities,[3779] Factories of the Future,[3780] and civil society through the Slovenian Digital Coalition.[3781] The

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[3773] Euronews, *EU's artificial intelligence law should serve as 'model across the globe'* https://www.euronews.com/2021/10/14/eu-s-artificial-intelligence-law-should-serve-as-model-across-the-globe
[3774] Presidency of the Council of the EU, *Presidency compromise text* (Nov. 29, 2021), https://data.consilium.europa.eu/doc/document/ST-14278-2021-INIT/en/pdf
[3775] Presidency of the Council of the EU, *Presidency compromise text* (Nov. 29, 2021), https://data.consilium.europa.eu/doc/document/ST-14278-2021-INIT/en/pdf
[3776] ICT Association of Slovenia, https://www.gzs.si/en_zit
[3777] The Chamber of Commerce and Industry of Slovenia, https://eng.gzs.si/vsebina/About-Us
[3778] Slovenian Artificial Intelligence Society, https://slais.ijs.si/
[3779] *Strategic Research and Innovation Partnerships on Smart Cities*, http://pmis.ijs.si/wp-content/uploads/2019/02/SRIP_SC_C-1.pdf
[3780] *Strategic Research and Innovation Partnerships for Factories of the Future*, https://www.effra.eu/jozef-stefan-institute-srip-strategic-research-innovation-partnership.
[3781] Slovenian Digital Coalition, https://www.digitalna.si/en.

Ministry of Public Administration prepared the first draft, which was released soliciting public comments in August 2020.[3782]

Data Protection

The protection of personal data is guaranteed by the Slovenian Constitution.[3783] Article 38 of the Constitution ensures purpose limitation and includes the right of access to the collected personal data and the right to judicial protection.[3784]

Since Slovenia is an EU Member State, the General Data Protection Regulation (GDPR)[3785] is directly applicable in Slovenia and to Slovenians. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[3786] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018. In July 2022, the European Commission sent a reasoned opinion to Slovenia for failing to implement important obligations under the GDPR, as well as for not making it possible for the Slovenian Information Commissioner to use all the corrective powers under the GDPR.[3787]

In December 2022, Slovenia adopted a new Personal Data Protection Act (PDPA), adapting the national legislation to the GDPR. The new legislation entered into force in January 2023 and replaces the 2004 Data Protection Act. Under the PDPA, the Slovenian Information Commissioner has now the authority to impose fines pursuant to the GDPR. The PDPA also introduces rules on the age limit for a child's consent (15

[3782] European Commission, Knowledge for Policy, *AI Watch, Slovenia AI Strategy Report*, https://knowledge4policy.ec.europa.eu/ai-watch/slovenia-ai-strategy-report_en

[3783] *Slovenian Constitution* (1991), https://www.us-rs.si/media/constitution.pdf

[3784] GDPRhub, *Data Protection in Slovenia,* https://gdprhub.eu/Data_Protection_in_Slovenia

[3785] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

[3786] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[3787] European Commission, *Infringement decisions*, https://ec.europa.eu/atwork/applying-eu-law/infringements-proceedings/infringement_decisions/index.cfm?lang_code=EN&typeOfSearch=false&active_only=0&noncom=0&r_dossier=INFR%282021%292269&decision_date_from=&decision_date_to=&title=GDPR&submit=Search

years old), use of CCTV and biometric data as well as an obligation to keep processing logs.[3788]

Regarding the activities of law enforcement authorities, Slovenia transposed the EU Data Protection Law Enforcement Directive (LED).[3789] "The directive protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[3790] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[3791] The LED also requires for Member States, including Italy, to enable data subjects to exercise their rights via national data protection authorities.[3792]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

[3788] Slovenian Data Protection Act, available only in Slovenian. https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2022-01-4187?sop=2022-01-4187; WolfTheiss, *Slovenia's New Data Protection Act – fines, traceability logs and much more* (Jan. 3, 2023), https://www.wolftheiss.com/insights/slovenias-new-data-protection-act/
[3789] Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA, *National transposition – Slovenia*, https://eur-lex.europa.eu/legal-content/EN/NIM/?uri=CELEX:32016L0680
[3790] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en
[3791] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504
[3792] Article 17 of the LED.

Slovenia is also a member of the Council of Europe. It signed but has not yet ratified[3793] the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[3794]

The Slovenian Human Rights Ombudsman (since 2002) and the Information Commissioner (since 2007) are both members of the Global Privacy Assembly. However they have not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[3795] the 2020 GPA Resolution on AI Accountability,[3796] or the 2022 GPA Resolution on Facial Recognition Technology.[3797]

Algorithmic Transparency

Although it has not yet ratified the Protocol amending the Convention 108 which provides for algorithmic transparency, Slovenia is subject to the GDPR. Slovenians have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[3798]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[3799] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to

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[3793] Council of Europe, *Chart of signatures and ratifications of Treaty 223* (status as March 22, 2023), https://www.coe.int/en/web/conventions/full-list?module=signatures-by-treaty&treatynum=223

[3794] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[3795] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[3796] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[3797] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology (Oct. 2022)*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[3798] See Recital 63 and Article 22 of the GDPR.

[3799] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[3800]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[3801]

Facial Recognition

A report by the Greens/EFA of the European Parliament,[3802] revealed that Slovenia uses facial recognition technologies for 'ex-post identification' in its criminal investigations.[3803] In Slovenia, the use of facial recognition technology by the police was legalized five years after they had

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[3800] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[3801] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[3802] Ragazzi, F., Kuskonmaz, E., PlIájás, I., Van de Ven, R., Wagner, B., Report for the Greens/EFA in the European Parliament, *Behavioural Mass Surveillance in EU Member States* (October 2021), http://extranet.greens-efa.eu/public/media/file/1/7297

[3803] Luca Bertuzzi, Euractiv, *Facial recognition technologies already used in 11 EU countries and counting, report says* (Oct. 26, 2021) https://www.euractiv.com/section/data-protection/news/facial-recognition-technologies-already-used-in-11-eu-countries-and-counting-report-says/

started using it.[3804] The Slovenian police confirmed to the Slovenian Information Commissioner that they had used Face Trace (a facial recognition software[3805]) back in 2014.[3806] The Commissioner's office raised the issue several times in the years 2015-2019.[3807]

Subsequent to the enactment of the 2017 Police Tasks and Powers Act, which permits the use of biometric and facial recognition tools by law enforcement authorities,[3808] the Human Rights Ombudsman and the Information Commissioner brought a formal complaint against the Act before the constitutional court of Slovenia.[3809] The complaint mentioned the excessive data gathering powers granted to the police through the use of drones and automated systems to recognize license plates, the uncontrolled use of passenger name records at airports, and the lack of sufficient protection for citizens with no criminal record.[3810] However, the complaint did not include the use of facial recognition by law enforcement authorities. The reasoning of the Slovenian Human Rights Ombudsman for the exclusion of facial recognition from the complaint was that this was an exceptional measure which would not justify recourse to the constitutional court.[3811]

[3804] Lenart J. Kučić, Algorithm Watch, *Automating Society Report 2020: Slovenia* (October, 2020), https://automatingsociety.algorithmwatch.org/report2020/slovenia/
[3805] "Facial recognition technology is capable of identifying or verifying the identity of individuals through an advanced analysis of their facial details. The way this technology works is by matching facial images of an individual to a database of faces and comparing patterns of facial features (such as eyes, nose and mouth)." Quezada, K., (Jul. 20, 2020) https://www.law.kuleuven.be/citip/blog/law-enforcement-ai-in-the-spotlight-as-edpb-cast-doubt-on-legality-of-facial-recognition-tech/
[3806] Human Rights Ombudsman Republic of Slovenia, *Annual Report of the Human Rights Ombudsman of The Republic of Slovenia 2019,* Ljubljana (Jun. 30, 2020), p.147. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKE wiikNfl4Pb9AhXI3KQKHeRyCywQFnoECCwQAQ&url=https%3A%2F%2Fwww.thei oi.org%2Fdownloads%2F870qi%2FSlovenian_OM_Annual%2520Report_2019_EN.pdf &usg=AOvVaw2j6GHv6K5rsH_Clz_obxHz
[3807] Algorithm Watch, *Slovenian police acquires automated tools first, legalizes them later* (Jul. 7, 2020) https://algorithmwatch.org/en/slovenia-police-face-recognition/
[3808] Police Tasks and Powers Act 2017 (ZNPPol-A) https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina?urlurid=2017462 (only available in Slovenian)
[3809] *Annual Report of the Human Rights Ombudsman of The Republic of Slovenia 2019* (n 52)
[3810] Ibid.
[3811] Ibid.

In 2021, the Information Commissioner announced the completion of its investigation regarding the police's use of the Face Trace system.[3812] The investigation concluded that even though Face Trace is a biometric data processing-based system, it does not yield identification. Accordingly, the Information Commissioner deemed the use of Face Trace in compliance with data protection law.

As a consequence, the 2017 Police Tasks and Powers Act is still in force and the Slovenian police still uses facial recognition systems in the framework of their activities.

The Slovenian Information Commissioner is a member of the European Data Protection Board (EDPB), in charge of issuing "guidelines, recommendations and best practices in order to ensure that the Member States apply the LED consistently."[3813] In 2022, the EDPB produced guidelines on the use of facial recognition technologies in the area of law enforcement.[3814] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive. Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[3815]

[3812] OneTrust Data Guidance, *Slovenia: Commissioner's investigation into Face Trace Police system finds no privacy violations* (Apr. 16, 2021) https://www.dataguidance.com/news/slovenia-commissioners-investigation-face-trace-police. Press release only available in Slovenian, https://www.ip-rs.si/novice/policijski-sistem-face-trace-sicer-temelji-na-biometrični-obdelavi-osebnih-podatkov-a-ne-omogoča-identifikacije

[3813] Communication from the Commission to the European Parliament and the Council, *First report on application and functioning of the Data Protection Law Enforcement Directive (EU) 2016/680 ('LED')* (July 25, 2022), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0364&qid=1658824345764#footnote136

[3814] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May 12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

[3815] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

Lethal Autonomous Weapons

According to Human Rights Watch, Slovenia has expressed its concerns with regard to "the growth of new weapon technologies" and stressed the "necessity for human control over all autonomous weapons". However, Slovenia has not commented on calls to ban fully autonomous weapons.[3816]

In October 2022, Slovenia was one of the 70 states which endorsed a joint statement on autonomous weapons systems at the United Nations General Assembly. The statement called for the recognition of the dangers of autonomous weapons systems, acknowledged the need for human oversight and accountability, and emphasized the importance of an international framework of rules and constraints.[3817] In this joint statement, States declared that they "are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[3818]

In February 2023, Slovenia participated in the international summit on the responsible application of artificial intelligence in the military domain. At the end of the Summit, Slovenia endorsed a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[3819] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and

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[3816] Human Rights Watch, *Stopping Killer Robots Country Positions on Banning Fully Autonomous Weapons and Retaining Human Control* (2020) https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and

[3817] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly,* (2022) https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

[3818] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.

[3819] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[3820]

Human Rights

According to Freedom House, Slovenia receives high scores for Political Rights and Civil Liberties for a combined score of 95/100 in 2022. The report notes that the government "generally operates with openness and transparency." Slovenia is a signatory to major human rights treaties.[3821]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[3822]

[3820] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[3821] Office of the United Nations High Commissioner for Human Rights, *Treaty Ratification Status for Slovenia*, https://tbinternet.ohchr.org/_layouts/15/TreatyBodyExternal/Treaty.aspx?CountryID=159&Lang=EN

[3822] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

OECD / G20 AI Principles

   Slovenia is a member of the OECD and has endorsed the OECD AI Principles.[3823] The Slovenian AI National Program expressly refers to the OECD AI Principles on Artificial Intelligence, which promote artificial intelligence that is innovative and trustworthy and respects human rights and democratic values.[3824]

   The OECD has mentioned Slovenia's Digital Coalition and AI4Slovenia as an example of national AI polices that are shaping an enabling environment for AI.[3825] Slovenia is also a founding member of the Global Partnership on AI. [3826]

   In January 2023, the Government of the Republic of Slovenia adopted the Strategy for the Cooperation of the Republic of Slovenia with the OECD until the end of 2025. The aim of the Strategy is to use benchmarking and good practices from OECD Member countries to support domestic reform processes to achieve the digital and green transformation and realise Slovenia's development potential. With the Strategy, "Slovenia pursues the objective of digital transformation based on the protection of human rights and fundamental freedoms, paying attention to gender equality and respect for the rights of older persons, and responding effectively to demographic changes. Slovenia will continue to strengthen its role in the regulation and ethical use of artificial intelligence. It continues to support the work of the OECD Artificial Intelligence Observatory based on the signed Memorandum of Cooperation. It will participate in the OECD Trust Survey and work with OECD experts to develop a sustainable public administration strategy to 2030 and to implement the digital transformation of the public administration."[3827]

[3823] OECD, *Forty-two countries adopt new OECD Principles on Artificial Intelligence* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[3824] NpAI, p. 9.

[3825] OECD, *State of Implementation of the OECD AI Principles: Insights from National AI Policies* (June 2021), https://www.caidp.org/app/download/8328376363/OECD-AIpolicies-2021.pdf

[3826] GPAI: *Community*, https://gpai.ai/community/

[3827] Ministry of Foreign Affairs, *The Government of the Republic of Slovenia adopts the Strategy for the Cooperation of the Republic of Slovenia with the Organisation for Economic Co-operation and Development* (Jan. 19, 2023), https://www.gov.si/en/news/2023-01-19-the-government-of-the-republic-of-slovenia-adopts-the-strategy-for-the-cooperation-of-the-republic-of-slovenia-with-the-organisation-for-economic-co-operation-and-development-oecd/

UNESCO Recommendation on the Ethics of Artificial Intelligence

As a UNESCO member state, Slovenia has endorsed the UNESCO Recommendation on the Ethics of AI.

In March 2021, Borut Pahor, President of the Republic of Slovenia, and Audrey Azoulay, Director-General of UNESCO, inaugurated the International Research Centre on Artificial Intelligence (IRCAI), as a Category 2 centre under the auspices of UNESCO in Ljubljana, Slovenia.[3828] The IRCAI is designed to be a communication platform for the collection and dissemination of good practices and case studies on the use and deployment of AI in society.[3829] The IRCAI focuses on advancing research on the use of AI in order to help achieve the UN Sustainable Development Goals.[3830] The core research functions of the Centre will be guided by its four international scientific committees on: AI and Climate; AI and Education that will focus on AI algorithms that can make Open Educational Resources more accessible and easier to use; AI and Assistive Technologies that will highlight the potential of using AI technologies to assist persons with disabilities; and AI and Healthcare that will focus on the use of AI in vaccine development processes.[3831]

Evaluation

In recent years, Slovenia has had a significant influence over the development of AI policy in Europe due to its Presidency of the Council of the European Union during the second half of 2021, its AI collaboration with UNESCO, and its work in support of the Council of Europe AI expert group, the CAHAI.[3832] While the national AI strategy and other technology-related workplans pledge to implement a legislative and regulatory regime that also protects fundamental rights, Slovenia has been slower than most of its European counterparts in updating its data protection regime. The entry into force in January 2023 of the new Data Protection Act, and with it

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[3828] UNESCO, *UNESCO Director-General and President of Slovenia inaugurate first research centre on artificial intelligence* (Apr. 6, 2021) https://en.unesco.org/news/unesco-director-general-and-president-slovenia-inaugurate-first-research-centre-artificial

[3829] Van Roy, V., Rossetti, F., Perset, K. and Galindo-Romero, L., *AI Watch - National strategies on Artificial Intelligence: A European perspective*, 2021 edition, EUR 30745 EN, Publications Office of the European Union, Luxembourg, 2021, https://publications.jrc.ec.europa.eu/repository/handle/JRC122684.

[3830] International Research Center on Artificial Intelligence (IRCAI) *Launch Report* (Apr. 2021), https://ircai.org/wp-content/uploads/2021/05/IRCAI_Launch2021_Report.pdf

[3831] International Research Center on Artificial Intelligence (IRCAI) *Launch Report* (Apr. 2021), https://ircai.org/wp-content/uploads/2021/05/IRCAI_Launch2021_Report.pdf

[3832] Council of Europe, *CAHAI – Ad hoc Committee on Artificial Intelligence*, https://www.coe.int/en/web/artificial-intelligence/cahai

the possibility for the Slovenian Information Commissioner to impose fines provided for the GDPR is a positive step. Ratification of the modernised Convention 108 is still pending. Concerns remain with regard to surveillance practices, especially by law enforcement authorities.

South Africa

National AI Strategy

There is currently no dedicated national artificial intelligence (AI) strategy in South Africa. Rather, AI, conceived as "the bedrock of the Fourth Industrial Revolution (4IR)",[3833] is addressed within the framework of an integrated Fourth Industrial Revolution (4IR) strategy currently in the making.

In 2019, President Cyril Ramaphosa established the Presidential Commission on the Fourth Industrial Revolution. In January 2020, the 4IR Commission released a diagnostic report which "sets out a vision for chartering the way forward for South Africa in the Fourth Industrial Revolution."[3834]

The diagnostic report explains that "[t]he task of contemplating a 4IR strategy and related institutional arrangements is principally about contemplating solutions to South Africa's development challenges." "South Africa's vision for development is premised on resolving the nation's historical scars, expressed as the 'triple scourge': Poverty, Unemployment and Inequality."[3835] The 4IR Commission has thus "adopted an amended definition of the 4IR that ensures a human-centric approach."[3836] "The quest of the Commission is thus related to two key questions: South Africa's economic competitiveness and the wellbeing of her people."[3837]

The 4IR Commission is "a lever, activated by the State, to provide leadership for all society in understanding and navigating what will be a

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[3833] L. Mpedi, Tinyiko Maluleke, Tshilidzi Marwala and Khumbudzo Ntshavheni, *South Africa's new National Artificial Intelligence Institute can help transform our economy* (Dec. 5, 2022), https://www.uj.ac.za/news/south-africas-new-national-artificial-intelligence-institute-can-help-transform-our-economy/

[3834] The Presidency of the Republic of South Africa, *Diagnostic report of the Presidential Commission on the 4th Industrial Revolution* (Oct. 23, 2020), p. xi, https://www.ellipsis.co.za/wp-content/uploads/2020/10/201023-Report-of-the-Presidential-Commission-on-the-Fourth-Industrial-Revolution.pdf

[3835] The Presidency of the Republic of South Africa, *Diagnostic report of the Presidential Commission on the 4th Industrial Revolution* (Oct. 23, 2020), p. 14, https://www.ellipsis.co.za/wp-content/uploads/2020/10/201023-Report-of-the-Presidential-Commission-on-the-Fourth-Industrial-Revolution.pdf

[3836] Ibid., p. 20.

[3837] The Presidency of the Republic of South Africa, *Diagnostic report of the Presidential Commission on the 4th Industrial Revolution* (Oct. 23, 2020), p. 14, https://www.ellipsis.co.za/wp-content/uploads/2020/10/201023-Report-of-the-Presidential-Commission-on-the-Fourth-Industrial-Revolution.pdf

fundamentally altered future (…) The role of the 4IR Commission is thus to clearly articulate the role of the State as well as all institutional actors and citizens in their capacity as equal protagonists in the story of our future."[3838]

The 4IR Commission conducted a comparative analysis of some national strategies which address "the nature and implication of the 4IR for their societies."[3839] Most of these strategies focus on AI. On this basis, the 4IR Commission identified "8 Dimensions of Strategy": "Preparation Through Experimentation"; "Regulation & Ethics"; "Human Capital Development"; "Global Leadership"; Technological Clarity & Commitment"; "Private Sector Capabilities"; "Service Delivery."[3840]

As for Ethics & Regulation, the 4IR Commission clarifies that "a focus on Regulation, Ethics, and Cultural aspects of the internet is key, not only to create an enabling policy environment to support private and non-governmental organisations as well as the state but to ensure ethical and transparent use of these new technologies."[3841]

Regarding service delivery, the 4IR Commission notes that "4IR strategies are typically based on and respond to service delivery challenges as well as a social and human development / wellbeing priorities. Particularly with respect to the government, there is a strong emphasis on e-government; using technology to improve mobility around cities and to enhance the quality and deployment of health services."[3842]

Key implementing projects include "government digitisation" and "clustered proposed programmes" such as a National Integrated Social Protection Information System, Smart ID, use of vernacular languages in technologies, a drone unit in the police; digital court solutions, and digital visa integrated platform force.[3843]

[3838] The Presidency of the Republic of South Africa, *Diagnostic report: Summary & key findings* (Oct. 23, 2020), p. 8, https://www.ellipsis.co.za/wp-content/uploads/2020/10/201023-Report-of-the-Presidential-Commission-on-the-Fourth-Industrial-Revolution.pdf

[3839] Ibid., p. 22.

[3840] Ibid., p. 25.

[3841] Ibid., p. 26.

[3842] The Presidency of the Republic of South Africa, *Diagnostic report of the Presidential Commission on the 4th Industrial Revolution* (Oct. 23, 2020), p. 26, https://www.ellipsis.co.za/wp-content/uploads/2020/10/201023-Report-of-the-Presidential-Commission-on-the-Fourth-Industrial-Revolution.pdf

[3843] Department of Communications & Digital Technologies, *PC4IR Strategic Implementation Plan (PC4IR SIP) National Departments Consultation Presentation* (March 2021), p. 13, https://www.dpme.gov.za/keyfocusareas/Provincial%20Performance%20Publication/Doc

The 4IR Commission mentions in its diagnostic report that "the State is central to planning and coordination in the 4IR. A high-level interdepartmental multi-stakeholder governance and coordination structure is understood to be the institutional custodian of the 4IR strategy."[3844] This task is currently being carried out by the Department of Communications and Digital Technologies (DCDT).[3845] The DCDT came into operation on 1st April 2020.[3846]

One of the DCDT's key missions is to develop the "PC4IR Strategic implementations Plans (PC4IR SIP) to realise the recommendations of the 4IR Commission Report."[3847] To this end, the 4IR Project Management Office (4IR PMO) was established within the DCDT.[3848] The 4IR PMO is operational since April 2020. The 4IR SIP is currently under consideration by Ministers and needs to be approved by the Cabinet.

The PC4IR SIP is based on three principles which will inform 4IR programs:

(1) "Human centred: Develop People and Skills for a 4IR ecosystem; Promotion of Human Rights; Cybersecurity (human security, which reinforces human rights); Environmental protection

(2) Economic focus (Economic development and inclusivity); International competitiveness

(3) Technological advancement (Technological transformation, invention and innovation); Build sustainable infrastructure"[3849]

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uments/PC4IR%20SIP%20Presentation_National%20Departments%20Consultation%20 2021.pdf

[3844] Ibid., p. 26.

[3845] The DCDT was established via the merger of the Department of Communications and the Department of Telecommunications and Postal Services in 2019. See National Government of South Africa, *Department of Communications and Digital Technologies – Overview*, https://nationalgovernment.co.za/units/view/428/department-of-communications-and-digital-technologies-dcdt

[3846] Department of Communications & Digital Technologies, *Annual Report 2021/22*, https://www.dcdt.gov.za/documents/annual-reports/file/236-annual-report-2021-2022.html

[3847] Department of Communications & Digital Technologies, *PC4IR Strategic Implementation Plan (PC4IR SIP) National Departments Consultation Presentation* (March 2021), https://www.dpme.gov.za/keyfocusareas/Provincial%20Performance%20Publication/Doc uments/PC4IR%20SIP%20Presentation_National%20Departments%20Consultation%20 2021.pdf

[3848] Ibid.; see also, Department of Communications & Digital Technologies, *About the 4IR PMO*, https://www.dcdt.gov.za/4ir-pmo.html

[3849] Department of Communications & Digital Technologies, *PC4IR Strategic Implementation Plan (PC4IR SIP) National Departments Consultation Presentation* (March 2021), p. 6,

Key objectives include the establishment of a 4IR Strategic Implementation Coordination Council and of an artificial intelligence institute, as well as the review and amendment of relevant policy and legislation.[3850]

On 30 November 2022, the former DCDT Minister, Khumbudzo Ntshavheni, launched the Artificial Intelligence institute of South Africa and AI hubs at the University of Johannesburg and at the Tshwane University of Technology.[3851] In December 2022, the DCDT Minister, together with representatives of these two universities and the incoming United Nations (UN) Under-Secretary General and Rector of the UN University, explained in an opinion article the pivotal role of the AI institute in the 4IR strategy. The AI institute is meant as "an innovation engine for public and private sectors in line with the PC4IR." "The institute will focus on research and development, as well as implementation capabilities in AI" in order to "develop solutions to South African and African challenges." [3852]

"The institute will also deal with arising legal and ethical issues. This is important. Failure to reflect on and provide possible solutions to legal and ethical questions will render the advances in AI capacities and applications meaningless and futile." The AI institute will scientifically "support the development, review and amendment of legislation as envisaged by the PC4IR."[3853] In this regard, Letlhokwa George Mpedi, the

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https://www.dpme.gov.za/keyfocusareas/Provincial%20Performance%20Publication/Documents/PC4IR%20SIP%20Presentation_National%20Departments%20Consultation%202021.pdf

[3850] Department of Communications & Digital Technologies, *PC4IR Strategic Implementation Plan (PC4IR SIP) National Departments Consultation Presentation* (March 2021), p. 4, https://www.dpme.gov.za/keyfocusareas/Provincial%20Performance%20Publication/Documents/PC4IR%20SIP%20Presentation_National%20Departments%20Consultation%202021.pdf

[3851] South African Government, *Minister Khumbudzo Ntshavheni launches Artificial Intelligence Institute of South Africa and AI hubs* (Nov. 30, 2022), https://www.gov.za/speeches/minister-khumbudzo-ntshavheni-launches-launch-artificial-intelligence-institute-south

[3852] L. Mpedi, Tinyiko Maluleke, Tshilidzi Marwala and Khumbudzo Ntshavheni, *South Africa's new National Artificial Intelligence Institute can help transform our economy* (Dec. 5, 2022), https://www.uj.ac.za/news/south-africas-new-national-artificial-intelligence-institute-can-help-transform-our-economy/

[3853] L. Mpedi, Tinyiko Maluleke, Tshilidzi Marwala and Khumbudzo Ntshavheni, *South Africa's new National Artificial Intelligence Institute can help transform our economy* (Dec. 5, 2022), https://www.uj.ac.za/news/south-africas-new-national-artificial-intelligence-institute-can-help-transform-our-economy/

Vice-Chancellor and Principal of the University of Johannesburg, has been calling for "legislation that specifically speaks to AI."[3854]

The 4IR SIP is to be aligned with existing key strategic development plans, primarily the National Development Plan and the Medium Term Strategic Framework 2019-2024 which is the implementation plan and monitoring framework for achieving the National Development Plan 2030 priorities. One of these priorities consists in achieving improved information and communication technologies (ICTs) by 2030.[3855] Part of the strategy is to enhance ICTs through a national e-strategy that places South Africa on the international stage with international governance agencies such as the International Telecommunications Union (ITU) and the World Trade Organization (WTO).[3856] The aim is to bridge the digital divide, boost economic activity, and improve the education, health, transport and labor sectors, fostering growth in digital technologies as part of the growth in ICTs.[3857]

The aim is also for the South Africa's 4IR strategy to contribute in the development of a similar strategy at regional level. The African Union (AU) Commission has developed a comprehensive Digital Transformation Strategy for Africa.[3858] Its purpose is to foster an "integrated and inclusive digital society and economy in Africa that improves the quality of life of Africa's citizens", "breaks the digital divide", and ensures "continental ownership with Africa as a producer and not only a consumer in the global economy."[3859] The AUC strategy envisions harmonization of policies, legislations and regulations as key. The strategy also includes the design of "policies based on a human-centred and holistic approach that takes into account the local context and cross-cutting issues relevant to all stages of policy design and implementation. Special attention should be given to

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[3854] Lethokwa George Mpedi, *AI holds promise of great good and great harm – global ethical and legal standards are needed*, Daily Maverick (Feb. 22, 2023), https://www.dailymaverick.co.za/opinionista/2023-02-22-ai-holds-promise-of-great-good-and-great-harm-ethical-legal-standards-needed/

[3855] National Planning Commission (NPC), *National Development Plan* (2012), https://www.gov.za/issues/national-development-plan-2030. .

[3856] Ibid., pp. 195-96.

[3857] Ibid., p. 3.

[3858] In collaboration with the UN Economic Commission for Africa, Smart Africa, AUDA-NEPAD, Regional Economic Communities, African Development Bank, Africa Telecommunications Union, Africa Capacity Building Foundation, International Telecommunication Union and the World Bank. See African Union, *The Digital Transformation Strategy for Africa (2020-2030)*, p. 1, https://au.int/sites/default/files/documents/38507-doc-dts-english.pdf

[3859] Ibid., p. 2.

minorities and vulnerable groups."[3860] The AU Commission also expresses its support to the ratification of the Convention on Cyber Security and Personal Data Protection, also known as the Malabo Convention,[3861] the African Union Convention of Cyber Security and Personal Data Protection, as well as making it "consistent with standards such as the modernized convention 108, the General Data Protection Regulation."[3862]

When South Africa assumed the position of AU Chairperson for the year 2020, President Ramaphosa called for the creation of an AI Forum within the African Union to discuss how to address AI "in uniformity."[3863]

In 2021, in line with the objectives of the 4IR SIP,[3864] South Africa led the development of Smart Africa's Artificial Intelligence Blueprint for Africa,[3865] which is "a precursor for the African continent to become a global player within the digital technology state affairs and a huge contribution to positioning Africa within the 4th Industrial Revolution." The aim is for the AI Blueprint "to set-up the African member states towards developing policies, strategies and plans that would ensure growth and prosperity within the digital revolution space."[3866]

A key chapter in the AI Blueprint is dedicated to AI and ethics. It acknowledges that "there is a need to ensure that ethics are integrated into AI systems to minimize structural discrimination and bias that can emerge from biased training data. Repercussions can lead to discrimination and impairment of rights in a myriad of circumstances including housing, medical care, education, and human rights. (…) In designing their national AI Strategy, countries should clearly elaborate the AI ethical framework. Among key aspects are safe and trustworthy use and development of AI"; "autonomous intelligent systems should be designed in ways that enable their decisions to be explained and humans to be accountable for their use."

[3860] Ibid., p. 8.

[3861] Ibid., p. 47.

[3862] Ibid., p. 47.

[3863] Smart Africa, *Artificial Intelligence Blueprint* (2021), p. 11, https://smart.africa/board/login/uploads/70029-eng_ai-for-africa-blueprint.pdf

[3864] Department of communications and digital technologies, *Progress Update on PC4IR Strategic Implementation Plan* (Feb, 2022), p. 8, https://www.ellipsis.co.za/wp-content/uploads/2022/01/Progress-update-on-PC4IR-Strategic-Implementation-Plan-Feb-2022.pdf

[3865] See South African Government, *Minister Khumbudzo Ntshavheni: Artificial intelligence regulation while encouraging innovation* (Nov. 4, 2021), https://www.gov.za/speeches/minister-khumbudzo-ntshavheni-remarks-artificial-intelligence-ai-regulation-while

[3866] Smart Africa, *Artificial Intelligence Blueprint* (2021), p. 11, https://smart.africa/board/login/uploads/70029-eng_ai-for-africa-blueprint.pdf

"Audits and certification schemes should monitor compliance of artificial intelligence systems with engineering and ethical standards, which should be developed using multi-stakeholder and multilateral approaches. Life and death decisions should not be delegated to machines. AI systems should be designed taking into account such key concepts as people, the planet, prosperity and peace. According to a recent study of 84 sets of AI ethics guidelines, the most common principles included are transparency, justice & fairness, responsibility, non-maleficence, privacy, beneficence, freedom & autonomy, sustainability, dignity, and solidarity." After noticing that current AI ethics initiatives have been led by Western efforts, the AI Blueprint emphasizes that "participation from African nations is crucial and should be further encouraged."[3867]

In February 2022, the AU Executive Council, requested the AU Commission to pursue the development of a continental AI strategy. And in May 2022, the AU High-Level Panel on Emerging Technologies (APET) reiterated the need for a continental AI strategy that "would enable African countries to enhance policymaking and implementation and improve stakeholder engagement on AI-related challenges and opportunities."[3868] The APET already organized two expert consultative meetings and is due to release an "AI for Africa report."[3869]

Public Participation

After the publication of the PC4IR Report in October 2020, a draft consultative process took place with regard to the 4IR SIP in October-November 2020, followed by stakeholder consultations from February 2021 until July 2021. The PMO finalized its feedback analysis in August 2021 and submitted the final draft of the 4IR SIP in October 2021.[3870]

In 2018, South Africa's Department of Cooperative Governance and Traditional Affairs, in partnership with a private company, launched GovChat, an online citizen engagement AI-powered application which

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[3867] Ibid., pp. 44-45.

[3868] See Diplo, *Artificial intelligence in Africa: Continental policies and initiatives*, https://www.diplomacy.edu/resource/report-stronger-digital-voices-from-africa/ai-africa-continental-policies/

[3869] AUDA-NEPAD, African Union Development Agency, *The African Union Artificial Intelligence Continental Strategy For Africa* (May 30, 2022), https://www.nepad.org/news/african-union-artificial-intelligence-continental-strategy-africa

[3870] Department of communications and digital technologies, *Progress Update on PC4IR Strategic Implementation Plan* (Feb, 2022), p. 2, https://www.ellipsis.co.za/wp-content/uploads/2022/01/Progress-update-on-PC4IR-Strategic-Implementation-Plan-Feb-2022.pdf

promotes accountable local governance[3871] and allows citizens to engage with their local councilors.[3872]

Data Protection

The right to privacy is guaranteed under section 14 of the 1996 Constitution of South Africa.

South Africa's data protection law, the Protection of Personal Information Act (POPIA) got the Parliament's assent in 2013. However, it is following the COVID-19 outbreak and the proliferation of the use of personal data in relation to digital services, that POPIA took effect on 1 July 2020, and became fully enforceable one year later.[3873] Of relevance is also the Cybercrimes Act which entered into force on 1 December 2021. Criminal offences include hacking; unlawful interception, interference or acquisition of data; malicious or harmful communications.

Not only does the preamble of POPIA recall the constitutional nature of the right to privacy but it mentions that the right to privacy includes "a right to protection against the unlawful collection, retention, dissemination and use of personal information."[3874]

POPIA provides that "a data subject may not be subject to a decision which results in legal consequences for him (…), or which affects him (…) to a substantial degree, which is based solely on the basis of the automated processing of personal information intended to provide a profile of such person including his (…) performance at work, on his (…) credit worthiness, reliability, location, health, personal preferences or conduct."[3875] Exceptions to this principle apply based on a law or code of conduct which provides for appropriate measures to safeguard "the legitimate interests of data subjects" or based on an authorization granted by the South African Information Regulator when the public interest is at stake such as the "interests of national security", "the prevention, detection and prosecution of offences" or "important economic and financial interests of a public body"[3876]

[3871] Republic of South Africa, Government Communications, *GovChat,* https://www.salga.org.za/SALGA%20National%20Communicators%20Forum%20Web/Documents/GovChat%20Presentation.pdf.

[3872] Human Sciences Research Council, *AI technologies for responsive local government in South Africa* (2019), http://www.hsrc.ac.za/en/research-outputs/view/10337.

[3873] *Protection of Personal Information Act No.4 of 2013,* https://www.gov.za/sites/default/files/gcis_document/201409/3706726-11act4of2013protectionofpersonalinforcorrect.pdf

[3874] Ibid.

[3875] Section 71(1) of POPIA, https://popia.co.za

[3876] See Section 37 of POPIA, https://popia.co.za

Unless a code of conduct has been issued,[3877] POPIA requires a responsible party to "obtain prior authorisation from the Information Regulator if that responsible party intends to process any unique identifiers of data subjects (i) for another purpose than intended at collection, and (ii) with the aim of linking the information with information processed by other responsible parties". "Unique identifier" can refer for instance to an identity number or employee number.[3878]

Such is also the case if that responsible party plans to "(b) process information on criminal behaviour or on unlawful or objectionable conduct on behalf of third parties; (c) process information for the purposes of credit reporting; or (d) transfer special personal information (…) or the personal information of children (…) to a third party in a foreign country that does not provide an adequate level of protection for the processing of personal information"[3879]

POPIA also established the South African Information Regulator.[3880] The Information Regulator is an independent body responsible for monitoring and enforcing compliance with POPIA by public and private bodies. The Regulator is subject to the law and is accountable to the national assembly.[3881]

In October 2022, the Information Regulator, responsible for approving industry codes of conduct,[3882] approved the Banking Association of South Africa's Code of Conduct for the Processing of Personal Information by the Banking Industry.[3883] The Code regulates the use of automated decision-making in "profiling, work performance, credit worthiness, location, health, reliability, personal preferences, or conduct."[3884] The Code requires banks to adopt measures and safeguards for automated decision-making processes, such as identification, lawfulness, transparency, privacy notices/statements, and the ability of

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[3877] Section 57(3) of POPIA, https://popia.co.za

[3878] See section 57(1)(a) of POPIA, https://popia.co.za

[3879] Section 57(1) of POPIA, https://popia.co.za

[3880] Section 39 of POPIA, https://popia.co.za

[3881] Information Regulator, *About the Regulator*, https://inforegulator.org.za

[3882] See Chapter 7 of POPIA, https://popia.co.za

[3883] Information Regulator, *Codes of Conduct,* Enforcement Notices, https://inforegulator.org.za/codes-of-conducts/

[3884] Information Regulator, *Notice in terms of Section 62(1) of POPIA Code of conduct: The Banking Association South Africa (BASA)* (Sept. 27, 2022), p. 20, https://inforegulator.org.za/wp-content/uploads/2022/10/Code%20of%20Conduct%20for%20the%20Banking%20Association%20South%20Africa%20(BASA).pdf.

users to raise complaints in case of dissatisfaction with the result of an automated decision.[3885]

The Information Regulator is a member of the Global Privacy Assembly (GPA) since 2017. The Information Regulator has not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[3886] the 2020 GPA Resolution on AI Accountability,[3887] or the 2022 GPA Resolution on Facial Recognition Technology.[3888]

A specific issue identified in the 2022 AU Data Policy Framework[3889] and pointed out by some renown researchers such as Emma Ruttkamp-Bloem and Christiaan Viljoen in the South African context is the absence of representation of a large part of the South African society in terms of data sets. In a 2022 study,[3890] these researchers reported that the digital divide is primarily a data divide which is fostered by, and increases the social divide, thus resulting in potential bias and discrimination. Emma Ruttkamp-Bloem and Christiaan Viljoen noted that the fact that at least 50% of South Africans do not have a digital footprint is worrying in this context.[3891] The practice of data-driven AI in a country like South Africa cannot be extracted from relations of social power. Policymakers should not underestimate the inherent South African threat to fairness practices in machine learning both in terms of existing bias in training data and

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[3885] Ibid., pp. 20-21.

[3886] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[3887] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[3888] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[3889] *AU Data Policy Framework* (Feb. 2022), https://au.int/sites/default/files/documents/42078-doc-AU-DATA-POLICY-FRAMEWORK-ENG1.pdf

[3890] Emma Ruttkamp-Bloem and Christiaan, Viljoen, *Mozilla/ USAID Responsible Computing Challenge. A South African Landscape Study* (2022), https://foundation.mozilla.org/en/what-we-fund/awards/responsible-computer-science-challenge/

[3891] Catherine Croxton and Nomvula Buthelezi, *SA has a huge 'digital blind spot' and it's holding us all back* (Feb. 4, 2021), https://www.dailymaverick.co.za/article/2021-02-04-sa-has-a-huge-digital-blind-spot-and-its-holding-us-all-back/

modelling practices and the socially powered situations in which predictions are interpreted and implemented or acted upon.

Algorithmic Transparency

According to POPIA, algorithmic transparency is ensured to the extent that "appropriate measures must (a) provide an opportunity for a data subject to make representations about a decision" regarding the sole use of automated decision making and "(b) require a responsible party to provide a data subject with sufficient information about the underlying logic of the automated processing of the information relating to him or her to enable him or her to make representations in terms of paragraph (a)."[3892]

The 2022 Code of Conduct for the Processing of Personal Information by the Banking Industry also provides for algorithmic transparency.[3893]

EdTech and Tracking Children

In May 2022, Human Rights Watch published a global investigative report on the education technology (EdTech) endorsed by 49 governments, including South Africa, for children's education during the pandemic. Based on technical and policy analysis of 163 EdTech products, Human Rights Watch found that governments' endorsements of the majority of these online learning platforms put at risk or directly violated children's rights.

Some EdTech products, such as Extramarks, apparently exclusively designed for children's use and with an estimated 100.000 users in South Africa, targeted children with behavioral advertising. Extramarks sent children's data to AdTech companies that specialize in behavioral advertising or whose algorithms determine what children see online. According to Human Rights Watch, in line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop, refine, and enforce modern child data protection laws and standards, and ensure that children

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[3892] Section 71(2) of POPIA, https://popia.co.za
[3893] See E 13.8.2 and 13.8.3 of the Banking Code in Information Regulator, *Codes of Conduct,* Enforcement Notices, https://inforegulator.org.za/codes-of-conducts/

who want to learn are not compelled to give up their other rights in order to do so.[3894]

Lethal Autonomous Weapons

South Africa is a signatory to the United Nations Convention on Certain Conventional Weapons.[3895] At the 2018 Convention on Certain Conventional Weapons (CCW) meeting, South called for a ban on Lethal Autonomous Weapons Systems (LAWS) on behalf of the African Group.[3896] At the 2021 CCW meeting , South Africa advocated for the adoption of a legally binding instrument on LAWS: "It is high time for further work on LAWS, to move towards concrete negotiations and more active diplomatic efforts. Should the GGE's further work result in the adoption of an instrument on LAWS that is of a political nature only and as a final product, with no prospect of elevating further work to the level of a legally binding instrument, South Africa would regard the process as having been a failure."[3897]

South Africa was not among the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 UN General Assembly meeting. In this joint statement, States urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force." [3898].

[3894] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[3895] United Nations, *South Africa Signatory to the Convention on Certain Conventional Weapons*, https://geneva-s3.unoda.org/static-unoda-site/pages/templates/the-convention-on-certain-conventional-weapons/high-contracting-parties-and-signatories-ccw/SOUTH_AFRICA_E.pdf

[3896] United Nations, *Statement on behalf of the African Group* (Aug. 27, 2018), https://unoda-documents-library.s3.amazonaws.com/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_(2018)/2018_GGE%2BLAWS%2B2_6b_Benin_Africa%2BGroup.pdf

[3897] *South African Statement to the 6th CCW*, https://documents.unoda.org/wp-content/uploads/2022/02/South-Africa-CCW-RevCon-General-Statement-.pdf

[3898] Stop Killer Robots, *70 States Deliver Joint Statement on Autonomous Weapons Systems at UN General Assembly,* https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

Human Rights

South Africa maintains a score of 79/100 and a status of "Free" according to the Freedom House Freedom in the World 2022 rating system.[3899]

South Africa is a party to the African Charter on Human and Peoples' Rights. In its 2019 Declaration of Principles on Freedom of Expression and Access to Information in Africa, the African Commission on Human and Peoples' Rights (ACHPR), in charge of interpreting the Charter,[3900] called on states to ensure that the "development, use and application of AI, algorithms and other similar technologies by internet intermediaries are compatible with international human rights law and standards, and do not infringe on the rights to freedom of expression, access to information and other human rights."[3901]

In February 2021, the ACHPR adopted Resolution 473 having recognized that emerging technologies such as AI have a bearing on the enjoyment of human rights under the African Charter on Human and Peoples' Rights (the African Charter).[3902] The ACHPR called on state parties to the African Charter, South Africa included, to:

- Ensure that the development and use of AI, robotics and other new and emerging technologies is compatible with the rights and duties in the African Charter and other regional and international human rights instruments, in order to uphold human dignity, privacy, equality, non-discrimination, inclusion, diversity, safety, fairness, transparency, accountability and economic development as underlying principles that guide the development and use of AI, robotics and other new and emerging technologies.

[3899] Freedom House, *Freedom in the World* (2022), *https*://freedomhouse.org/country/south-africa/freedom-world/2022

[3900] See Articles 30 and 45(3) of the African Charter on Human and Peoples' Rights.

[3901] Diplo, *Artificial intelligence in Africa: Continental policies and initiatives*, https://www.diplomacy.edu/resource/report-stronger-digital-voices-from-africa/ai-africa-continental-policies/

[3902] African Commission on Human and Peoples' Rights, *Resolution 473 on the need to undertake a Study on human and peoples' rights and artificial intelligence (AI), robotics and other new and emerging technologies in Africa* (Feb. 25, 2021), https://www.achpr.org/sessions/resolutions?id=504; See University of Pretoria, *Centre for Human Rights welcomes African Commission resolution on emerging technologies*, https://www.chr.up.ac.za/tech4rights-news/2451-press-statement-centre-for-human-rights-welcomes-african-commission-resolution-on-emerging-technologies; see also, CAIDP, *African Commission on Human and People's Rights Resolution 473 Statement of The Center for AI and Digital Policy (CAIDP)* (Apr. 5, 2021), https://www.caidp.org/app/download/8308244063/CAIDP-ACHPR-Res473-04052021.pdf?t=1637335261

- Ensure transparency in the use of AI technologies, robotics and other new and emerging technologies and that decisions made in the use of AI technologies, robotics and other new and emerging technologies are easily understandable to those affected by such decisions.
- Work towards a comprehensive legal and ethical governance framework for AI technologies, robotics and other new and emerging technologies so as to ensure compliance with the African Charter and other regional treaties.

In September 2022, the Special Rapporteur on Freedom of Expression and Access to Information in Africa, Ourveena Geereesha Topsy-Sonoo, recalled that, with Resolution 473, the Commission, "recognizing the need to better understand the legal, ethical, safety and security opportunities and challenges raised by AI, robotics and other new and emerging technologies in Africa, observed in its Resolution (…) that new and emerging technologies present both opportunities and perils for the promotion and protection of human and peoples' rights in Africa. The Commission further observed that whilst making government services and information digital enhances transparency and accessibility and artificial intelligence allows for a number of benefits in the society, it has to be accompanied by human rights considerations and a bridging of the digital divide." The Special Rapporteur also declared that "State Parties are encouraged to develop domestic legal frameworks regulating AI and e-governance; ensure these technologies are developed and used transparently; and ensure that imported AI and e-governance systems align with the African Charter."[3903]

OECD / G20 AI Principles

Although South Africa is not a member of the Organization for Economic Co-operation and Development (OECD), as a member of the G20, it has endorsed the G20 human-centered AI principles[3904] that draw from the OECD AI Principles. The G20 AI principles highlight challenges in the use of AI including privacy, security, ethical issues, new digital divides and the need for AI capacity building.

[3903] African Commission on Human and Peoples' Rights, *Press Statement by the Special Rapporteur on Freedom of Expression and Access to Information in Africa, on the Occasion of International Day for Universal Access to Information* (Sept. 28, 2022), https://achpr.au.int/en/news/press-releases/2022-09-28/special-rapporteur-freedom-expression-access-international-day
[3904] G20, *Ministerial statement on trade and digital economy* 3 (2019), https://trade.ec.europa.eu/doclib/docs/2019/june/tradoc_157920.pdf

As a Key Partner of the OECD, South Africa contributes to the OECD's work in a sustained and comprehensive manner, including in the field of technology and innovation.[3905]

UNESCO Recommendation on the Ethics of Artificial Intelligence

South Africa endorsed the 2021 UNESCO Recommendations on the Ethics of AI.[3906] In September 2022, South Africa's Minister of Communications and Digital Technologies, Minister Khumbudzo Ntshavheni, expressed commitment to regulating AI in an address at the UNESCO-Southern Africa sub-Regional Forum on Artificial Intelligence (SARFAI) which took place in Windhoek, Namibia. The SARFAI provided a platform for the discussion of the sustainable development-oriented and ethical use of artificial intelligence, as steps for implementation of the UNESCO Recommendation in the region.

South Africa endorsed the resulting 2022 Windhoek Statement on Artificial Intelligence in Southern Africa.[3907] The Windhoek Statement calls for the establishment of a Southern African coordination mechanism for the implementation of the UNESCO Recommendation. The proposal is set to be submitted to the 2023 Joint Meeting of SADC Ministers responsible for Education and Training and Science, Technology and Innovation, for discussion and adoption, with a clear action plan, timelines, and a monitoring and evaluation framework.[3908]

Evaluation

South Africa is a leading figure in the development of a human-centered approach at regional and international level. South Africa has been a key player in the development of Smart Africa's Artificial Intelligence Blueprint for Africa which calls for ensuring that ethics are integrated into AI systems to minimize structural discrimination and bias. The 2021 AI Blueprint is a first step towards the adoption of a continental AI strategy. By endorsing the 2022 Windhoek Statement on Artificial Intelligence in Southern Africa, South Africa is among the pioneering countries that are committed to take concrete steps to implement the UNESCO

[3905]OECD, *South Africa and OECD*, https://www.oecd.org/southafrica/south-africa-and-oecd.htm#:~:text=In%202007%20the%20OECD%20Council,%2C%20China%2C%20India%20and%20Indonesia.
[3906] UNESCO, *Artificial Intelligence with Human Values for Sustainable Development*, https://en.unesco.org/artificial-intelligence
[3907] UNESCO, *Windhoek Statement on Artificial Intelligence in Southern Africa* (Sept. 9, 2022), https://unesdoc.unesco.org/ark:/48223/pf0000383197
[3908] UNESCO, *Implementation of the Recommendations on the Ethics of Artificial Intelligence* (Oct. 7, 2022), https://unesdoc.unesco.org/ark:/48223/pf0000382931

Recommendation on the Ethics of AI. At national level, South Africa 4IR Strategy is human-centered and does envisage artificial intelligence but has yet to be adopted. A dedicated national AI strategy would also provide a stronger basis for developing a coherent approach to AI and addressing the ethical and social challenges it raises. South Africa's data protection law does tackle automated decision making and algorithmic transparency is among the rights provided for by the legislation. However, the South African Information Regulator has not really addressed so far issues pertaining to the use of AI systems. Concerns exist with regard to the use of AI for surveillance purposes and its potential impact on the digital divide. There is also an urgent need to tackle structural bias induced by the absence of digital footprint and representation of a significant part of the South African society.

Spain

National AI Strategy

   Spain has identified artificial intelligence (AI) as "one of the disciplines most likely to influence the rapid transition to a new society and economy."[3909] On December 2, 2020, Spain unveiled the National Strategy for Artificial Intelligence (ENIA).[3910] The Spanish government stated it will allocate €600 million for the implementation of the strategy from 2021 to 2023.[3911] The objective of the ENIA is to generate trust in the development of inclusive and sustainable AI which focuses on the needs of the citizens. Six main goals are identified:

1) invigorating scientific research, technical development, and innovation of AI;
2) promoting the development of digital capabilities, encouraging national talent and attracting global talent in AI;
3) developing data platforms and infrastructure technology to provide support to AI;
4) integrating AI in value chains to transform the economy;
5) encouraging the use of AI in public administration and in strategic national missions;
6) and establishing an ethical and normative framework to strengthen the protection of individual and collective rights and to guarantee inclusion and social wellbeing.[3912]

   The ENIA also sets out five measures for a successful ethical and regulatory framework:

1) the development of a national seal of quality for AI;

[3909] Government of Spain & Ministry of Science, Innovation, and Universities, *Spanish RDI Strategy in Artificial Intelligence* (2019), https://www.ciencia.gob.es/stfls/MICINN/Ciencia/Ficheros/Estrategia_Inteligencia_Artificial_EN.PDF

[3910] Government of Spain, ENIA, *National Artificial Intelligence Estrategy* (Nov. 2, 2020), https://portal.mineco.gob.es/RecursosArticulo/mineco/ministerio/ficheros/National-Strategy-on-AI.pdf

[3911] Government of Spain, *Pedro Sánchez presenta la Estrategia Nacional de Inteligencia Artificial con una inversión pública de 600 millones en el periodo 2021-2023* (Dec. 2, 2020), https://www.lamoncloa.gob.es/presidente/actividades/Paginas/2020/021220-sanchezenia.aspx

[3912] Government of Spain, ENIA, *National Artificial Intelligence Estrategy* (Nov. 2, 2020), pp. 72 – 73, https://portal.mineco.gob.es/RecursosArticulo/mineco/ministerio/ficheros/National-Strategy-on-AI.pdf

2) the creation of observatories for ethical and legal evaluation of AI systems;
3) the development and release of a Digital Rights Charter;
4) the implementation of a national governance model for ethics in AI through the AI Advisory Council;
5) and the promotion of multisectoral national and international fora for dialogue, awareness, and participation.[3913]

The ENIA is part of several overlapping policy initiatives launched by the Spanish government. The 2025 Digital Agenda enumerates 50 measures for the Spanish government to take between 2020 and 2025 across 10 thematic axes in order to propel the country's digital transformation. The ninth axis is "Data Economy and Artificial Intelligence" and one of the measures contained therein is the accomplishment of the goals set out by the Strategy.[3914]

The ENIA is also part of the Plan for Recovery, Transformation, and Resilience for the Spanish economy launched in April 2021. The ENIA inscribes itself in the framework of the pact for science and innovation, with the aim to reinforce the National Health System's capacities.[3915] The Plan describes Spain's ambition to become a global leader in AI integration into a digitalized economy. The Plan refers to Spain's aspiration to a "humanist digitalization",with the development of AI in a human-centric way, thanks to the elaboration of a Charter of Digital Rights.[3916]

The ENIA intersects with the Spanish government's 2015 Plan for the Advancement of Language Technologies (HTL).[3917] Within the HTL framework, the Spanish government, in collaboration with the Barcelona

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[3913] Government of Spain, ENIA, *National Artificial Intelligence Estrategy* (Nov. 2, 2020), p. 70,
https://portal.mineco.gob.es/RecursosArticulo/mineco/ministerio/ficheros/National-Strategy-on-AI.pdf
[3914] Government of Spain, Ministry of Economic Affairs and Digital Transformation, *2025 Digital Spain*, https://portal.mineco.gob.es/en-us/digitalizacionIA/es-digital-2025/Pages/es-digital-2025.aspx
[3915] Government of Spain, *Recovery, Transformation, and Resilience* (Apr. 2021), https://www.lamoncloa.gob.es/temas/fondos-recuperacion/Documents/30042021-Plan_Recuperacion_%20Transformacion_%20Resiliencia.pdf
[3916] Government of Spain, *Recovery, Transformation, and Resilience* (Apr. 2021), p. 23, https://www.lamoncloa.gob.es/temas/fondos-recuperacion/Documents/30042021-Plan_Recuperacion_%20Transformacion_%20Resiliencia.pdf
[3917] Government of Spain, Ministry of Economic Affairs and Digital Transformation, *Plan for the Advancement of Human Language Technologies* (Oct. 2015), https://plantl.mineco.gob.es/tecnologias-lenguaje/PTL/Bibliotecaimpulsotecnologiaslenguaje/Detalle%20del%20Plan/Plan-Impulso-Tecnologias-Lenguaje.pdf

Supercomputing Center, created in 2021 the world's first massive Spanish-language AI system, which can generate and analyze texts in Spanish. This is part of Spain's strategic objective to promote the development of AI systems in Spanish, instead of relying on English-language systems.

The ENIA follows from the Spanish Research, Development and Innovation (RDI) Strategy for AI, published in 2019.[3918] The RDI Strategy for AI set out Priorities and Recommendations "to be developed in initiatives and activities defined and financed through the Science, Technology and Innovation Stares Plans, mobilizing the synergies between the different levels of public administration and through the co-development of the public and private sectors."[3919] The Spanish RDI Strategy included plans to create a National AI Strategy, a Spanish AI Observatory, and a strategic framework for the development of AI in compliance with the Spain's "ethical, legal, and social commitments" and the European ecosystem.[3920]

The ENIA has also a European dimension. Spain supports the 2018 AI ethical Guidelines of the EU High Level Expert Group.[3921] In this framework, "Trustworthy AI" "(1) should respect fundamental rights, applicable regulation and core principles and values, ensuring an "ethical purpose" and (2) should be technically robust and reliable since, even with good intentions, a lack of technological mastery can cause unintentional harm."[3922] In October 2020, the Spanish government, along with thirteen other EU Member States, published a position paper on innovative and trustworthy AI.[3923] This paper delineates a two-fold vision of AI

[3918] Government of Spain, Ministry of Science, Innovation, and Universities, *Spanish RDI Strategy in Artificial Intelligence* (2019), https://knowledge4policy.ec.europa.eu/sites/default/files/Spanish_RDI_strategy_in_AI.pdf

[3919] Government of Spain, Ministry of Science, Innovation, and Universities, *Spanish RDI Strategy in Artificial Intelligence* (2019), p. 9, https://knowledge4policy.ec.europa.eu/sites/default/files/Spanish_RDI_strategy_in_AI.pdf

[3920] Ibid., p.40.

[3921] European Commission, *High-Level Expert Group on Artificial Intelligence*, https://digital-strategy.ec.europa.eu/en/policies/expert-group-ai

[3922] The European Commission's High Level Expert Group on Artificial Intelligence, *Draft: Ethics Guidelines for AI* (2018), https://ec.europa.eu/futurium/en/ai-alliance-consultation/guidelines#Top

[3923] Denmark, Belgium, the Czech Republic, Finland, France Estonia, Ireland, Latvia, Luxembourg, the Netherlands, Poland, Portugal, Spain and Sweden, *Innovative and Trustworthy AI: Two sides to the same coin* (Oct. 2020), https://www.permanentrepresentations.nl/documents/publications/2020/10/8/non-paper---innovative-and-trustworthy-ai

development in the EU which consists in (1) seeking to promote innovation while managing risks through a clear framework and (2) establishing trustworthy AI as a competitive advantage. "The main aim must be to create a common framework where trustworthy and human-centric AI goes hand in hand with innovation, economic growth and competitiveness in order to protect our society, maintain our high-quality public service and benefit our citizens and businesses. This can help the EU to protect and empower their citizens, underpin innovation and progress in society and ensure that their values are protected."[3924]

Artificial Intelligence Advisory Council

In July of 2020, the Ministry of Economic Affairs and Digital Transformation established the Artificial Intelligence Advisory Council. The Advisory Council was created to analyze, assess, and support the government on matters of AI. The Advisory Council is intended to provide recommendations to the government on measures for the safe and ethical use of AI. It is composed of Spanish experts in science, economics, education, and other relevant fields, responsible for analyzing the implications of AI in different areas, such as industry, the future of work, protection of fundamental rights, data management, the fight against discrimination, and the elimination of social disparities.[3925]

Charter of Digital Rights

In July 2021, the Spanish Government released the Charter of Digital Rights. The Spanish Prime Minister Pedro Sanchez declared, "With the publication of the Digital Rights Charter, Spain is moving forwards in the promotion of humanistic digital transformation that seeks to continue placing our country in a position of international leadership in protecting citizens' rights and to actively contribute to the different initiatives and debates that are being developed at European and global levels. This consolidates Spain's leadership in the development of a free, open and inclusive digital society, defining "fair rules" for common development and

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[3924] Ibid., p.1.
[3925] Government of Spain, *El Gobierno constituye el Consejo Asesor de Inteligencia Artificial* (July 20, 2020),
https://www.lamoncloa.gob.es/serviciosdeprensa/notasprensa/asuntos-economicos/Paginas/2020/200720-inteligencia.aspx#:~:text=El%20Gobierno%20ha%20presentado%20el,%C3%A9tico%20de%20la%20Inteligencia%20Artificial

coexistence in the new digital reality, and guaranteeing the social nature of technological transformation."[3926]

The Charter contains a set of principles and rights to guide future regulatory projects and the development of public policies in order to guarantee the protection of individual and collective rights in new digital scenarios. The Charter "recognizes the challenges posed by the adaptation of existing rights to the virtual environment, and proposes a frame of reference for their protection in that context."[3927] The Charter seeks to update existing rights enshrined in various legal texts such as the Declaration of Human Rights or the Spanish Constitution. The Charter includes six main categories of rights: (1) rights pertaining to freedom such as the right not to be traced or profiled; (2) equality rights such as the right to equality and non-discrimination in the digital environment; (3) participatory rights in the public sphere; (4) rights related to the working and business environment, including impact assessment in the use of algorithms; (5) rights in specific settings such as AI. The Charter provides that AI should ensure a people-centered approach and the right to non-discrimination should be guaranteed in the development of AI systems. The Charter also proclaims the inalienable dignity of human beings. (6) guarantees such as the right to administrative and judicial protection in the digital environment.

Public Participation

The Spanish Government opened the proposed Digital Rights Charter for public comment[3928] in November 2020. This participatory process generated contributions from experts in the field and advocacy associations, as well as from citizens, together with input from the private sector, service providers, and the public sector with relevant competences.

[3926] La Moncloa, _The Government adopts the Digital Rights Charter to articulate a reference framework to guarantee citizens' rights in the new digital age_ (July 7, 2014), https://www.lamoncloa.gob.es/lang/en/gobierno/news/Paginas/2021/20210713_rights-charter.aspx

[3927] Documento para Consulta Pública: Carta de Derechos Digitales (Nov. 18, 2020), https://portal.mineco.gob.es/RecursosArticulo/mineco/ministerio/participacion_publica/audiencia/ficheros/SEDIACartaDerechosDigitales.pdf

[3928] Subdirección General para la Sociedad Digital, _Consulta pública para la elaboración de una Carta de Derechos Digitales_ (Jan. 20), https://portal.mineco.gob.es/es-es/ministerio/participacionpublica/audienciapublica/Paginas/SEDIA_Carta_Derechos_Digitales.aspx

Following this period of public consultation, the final Digital Rights Charter was unveiled in July 2021.[3929]

According to a report of the European consumer organization ("BEUC"), 83% of those in Spain think that consumers should be well informed when they deal with an automatic decision system and 80% believe they should have the right to say "no" to automated decision-making.[3930] The BEUC report also found high levels of concern in Spain about the potential failure of AI machines, the privacy of voice assistants, manipulation of consumer decisions, and unfair discrimination. More than half of those from Spain surveyed in the BEUC poll "disagree or strongly disagree that current regulation is adequate to efficiently regulate AI."[3931]

Data Protection

Since Spain is an EU Member State, the GDPR[3932] is directly applicable in Spain and to Spaniards. The aim of the GDPR is to "strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[3933] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018. In December 2018, the Spanish Parliament approved the new Spanish Fundamental Law on Data Protection and digital rights (NLOPD) which supplements the GDPR.

Regarding the activities of law enforcement authorities, after some delays, Spain transposed the EU Data Protection Law Enforcement Directive (LED)[3934] through the Spanish Act on Data Protection in the Area

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[3929] Government of Spain, *Digital Rights Charter*, https://www.lamoncloa.gob.es/presidente/actividades/Documents/2021/140721-Carta_Derechos_Digitales_RedEs.pdf

[3930] The European Consumer Organisation (BEUC), *Artificial Intelligence What Consumers Say: Findings and Policy Recommendations of a Multi-Country Survey of AI* (Sept. 2020), https://www.beuc.eu/publications/beuc-x-2020-078_artificial_intelligence_what_consumers_say_report.pdf

[3931] Ibid., p. 9.

[3932] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

[3933] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[3934] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or*

of Police and Criminal Justice.[3935] The LED "protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[3936] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[3937] The LED also requires for Member States, including Spain, to enable data subjects to exercise their rights via national data protection authorities.[3938]

"Consistency and a high level of protection among Member States is key in order to ensure effective judicial cooperation in criminal matters and police cooperation. The LED provides for the European Data Protection Board (EDPB) [of which the Spanish data protection authority is a member] to issue guidelines, recommendations and best practices (on its own initiative or at the Commission's request) in order to ensure that the Member States apply the LED consistently."[3939] The EDPB has produced guidelines on the use of facial recognition technologies in the area of law enforcement.[3940] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict

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prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[3935] Organic Law 7/2021 (May 26, 2021), https://www.boe.es/diario_boe/txt.php?id=BOE-A-2021-8806

[3936] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[3937] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[3938] Article 17 of the LED.

[3939] Communication from the Commission to the European Parliament and the Council, *First report on application and functioning of the Data Protection Law Enforcement Directive (EU) 2016/680 ('LED')*, COM/2022/364 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0364&qid=1658824345764#footnote136

[3940] European Data Protection Board, *Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement* (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[3941]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Spain is also a member of the Council of Europe and ratified the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.

AI Oversight

The Spanish Data Protection Agency (AEPD) is the main national supervisory authority in Spain. The AEPD ensures compliance with the GDPR. In September 2022, the AEPD published a Joint Paper with the EDPS on "10 misunderstandings about Machine Learning."[3942]

Despite being a member of the Global Privacy Assembly (GPA) since 2002, the AEPD has not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence;[3943] the 2020 GPA Resolution on AI Accountability;[3944] or the 2022 GPA Resolution on Facial Recognition Technology.[3945] The regional data protection agencies of

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[3941] European Data Protection Board, *EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement*, Press release (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

[3942] *AEPD-EDPS Joint Paper - 10 Misunderstandings about Machine Learning* (Sept. 20, 2022), https://edps.europa.eu/data-protection/our-work/publications/papers/2022-09-20-aepd-edps-joint-paper-10-misunderstandings-about-machine-learning_en

[3943] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[3944] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[3945] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

Catalonia (since 2004), the Basque Country (since 2005), and Andalusia (since 2022) are also GPA members.[3946]

The Law 22/2021 of December 28, 2021 provides for the creation of the Spanish Agency for the Supervision of Artificial Intelligence (AESIA).[3947] The creation of AESIA anticipates the entry into force of the EU AI Act which is expected to provide for EU Member States to either set up a new authority to supervise compliance with the AI Act, or to extend the mandate of an existing authority for that purpose. The Spanish Law provides for AESIA to act in an independent, transparent, objective and impartial manner. The Agency shall carry out measures aimed at minimizing significant risks to people's safety, health and fundamental rights, which may arise from the use of AI systems. AESIA will have the capacity to act on its own, in coordination with other competent authorities, and in support to private entities. [3948]

AESIA is to be attached to the Secretary of State for Digitalization and Artificial Intelligence. The Agency will benefit from full organic and functional independence from the public administrations. It will be endowed with public legal personality, its own assets, autonomy in its management and administrative powers.[3949] In December 2022, the Government published the decision to locate the seat of the new agency in La Coruña.[3950] While the AESIA is expected to start working in Autumn 2023, with a budget of 5 million euros and a staff of 40 employees, details of its plans and powers are still being discussed between Ministries.

The Ministry of Economic Affairs and Digital Transformation, leading this project, has announced that the AESIA will include a "regulatory sandbox" open for companies that wish to test the compliance of their AI systems with the new rules on AI and more particularly those of the proposed EU AI Act. "The Government of Spain will deploy an AI Sandbox to put the proposed requirements for high-risk AI systems into practice. (…) The Spanish AI Sandbox will provide practical experience

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[3946] Global Privacy *Assembly, List of Accredited Members*,
https://globalprivacyassembly.org/participation-in-the-assembly/list-of-accredited-members/

[3947] One hundred and thirtieth additional provision of the Law 22/2021, of December 28, of the General State Budget for the year 2022,
https://www.boe.es/buscar/act.php?id=BOE-A-2021-21653

[3948] Ibid., (2).

[3949] Ibid., (4).

[3950] *Orden PCM/1203/2022, de 5 de diciembre, por la que se publica el Acuerdo del Consejo de Ministros de 5 de diciembre de 2022, por el que se determina la sede física de la futura Agencia Española de Supervisión de Inteligencia Artificial*,
https://www.boe.es/diario_boe/txt.php?id=BOE-A-2022-20639

through applying the various features of the [EU AI Act] proposal to specific AI projects (e.g. requirements, conformity assessments and certain post-market activities) and making guidelines, toolkits and good-practice materials accessible to all. Such actions are expected to be useful for the development of harmonised European standards and the other preparatory work at national and EU level."[3951] The Ministry has issued a public tender "for the procurement of services that develop impact assessments of AI, a national AI certificate and research studies on the use of controlled experimentation activities to test AI systems."[3952]

Algorithmic Transparency

Spain is subject to the GDPR and Convention 108+. Spaniards have a general right to obtain access to information about automated decision-making and to the factors and logic of an algorithm.[3953]

The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithm systems[3954] specifically emphasizes requirements on transparency, accountability and effective remedies. With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be

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[3951] European Commission, *Launch event for the Spanish Regulatory Sandbox on Artificial Intelligence* (June 27, 2022), https://digital-strategy.ec.europa.eu/en/events/launch-event-spanish-regulatory-sandbox-artificial-intelligence

[3952] *Platform de contratacion del sector public*o, https://contrataciondelestado.es/

[3953] See Recital 63 and Article 22 of the GDPR. Article 9 c) of the Convention 108+ as well as Recital 77, *Explanatory Report, Convention 108+*, p. 24, https://rm.coe.int/convention-108-convention-for-the-protection-of-individuals-with-regar/16808b36f1

[3954] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

subject to particularly high standards as regards the explainability of processes and outputs."[3955]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[3956]

The AEPD has published a detailed guide on "GDPR compliance of processings that embed AI."[3957] In this guide, the AEPD explains that "complying with this obligation by making a technical reference to the algorithm implementation may be obscure, confuse or excessive and leading to information fatigue. However, sufficient information must be provided to understand the behaviour of the relevant processing."[3958] The AEPD provides many examples of the information that "must be provided" to understand the behavior of the relevant processing, with regard for example the relative importance or weight of each data category in the decision making, the quality of training data and the type of patterns used, and any reference to audits, "especially on the possible deviation of inference results, as well as certification or certifications performed on the AI system."[3959] The AEDP also published audit requirements for personal

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[3955] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[3956] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[3957] Spanish Data Protection Agency, *GDPR compliance of processings that embed Artificial Intelligence. An introduction* (Feb. 2020), https://www.aepd.es/es/documento/adecuacion-rgpd-ia-en.pdf

[3958] Ibid., p. 23.

[3959] Ibid.

data processing activities involving AI in January 2021[3960] and a reference map of personal data processing incorporating AI in November 2022.[3961]

The Charter of Digital Rights strengthens principles of Algorithmic Transparency. The Charter guarantees that no citizen is discriminated against for decisions based on algorithms and maintains that "transparency, auditability, explicability and traceability" of the same will be ensured. People have the right not to be the subject of a decision based solely on automated decision making, thus recognizing the right to "request human supervision and intervention and challenge automated or algorithmic decisions." The Charter recognizes that citizens must be explicitly informed when they are talking to an artificial intelligence system and that assistance by a human being must be guaranteed if the person concerned requests it.[3962]

In July 2022, a new Law on equal treatment and non-discrimination entered into force. Article 23 of this Law establishes rules on AI and automated decision-making mechanisms, creating special obligations for public administration entities in relation to the AI algorithms they use for decision-making.[3963] This Law establish that, within the framework of the ENIA and the Charter of Digital Rights in Spain, public administrations shall favor algorithms that take into account "criteria of minimization of bias, transparency and accountability, whenever technically feasible." Such mechanisms shall "include their design and training data, and will address their potential discriminatory impact," through impact evaluations to determine potential discriminatory bias. "Public administrations, within the framework of their competencies in the field of algorithms involved in decision-making processes, shall prioritize transparency in the design and implementation and the interpretability of the decisions adopted by them." Additionally, public administrations and companies "shall promote the use of an artificial intelligence that is ethical, reliable and respectful of fundamental rights, following especially the recommendations of the

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[3960] Spanish Data Protection Authority, *Mapa De Referencia Tratamiento De Datos Personales Que Incorporan Inteligencia Artificial (AI)* (Nov. 2022), https://www.aepd.es/media/guias-en/requisitos-auditorias-tratamientos-incluyan-ia-en.pdf

[3961] Spanish Data Protection Authority, *Audit Requirements for Personal Data Processing Activities involving AI* (Jan. 2021), https://www.aepd.es/es/documento/tratamientos-inteligencia-artificial-en.pdf

[3962] Government of Spain, *Digital Rights Charter*, https://www.lamoncloa.gob.es/presidente/actividades/Documents/2021/140721-Carta_Derechos_Digitales_RedEs.pdf

[3963] *Law 15/2022, of July 12, 2002, on equal treatment and non-discrimination,* https://www.boe.es/buscar/pdf/2022/BOE-A-2022-11589-consolidado.pdf

European Union in this regard.". A quality seal for algorithms is also to be created.[3964]

Lethal Autonomous Weapons

Spain has responded to the threat of Lethal Autonomous Weapons Systems (LAWS) by affirming that the Spanish military does not have and will not develop such technology and emphasizing the need for meaningful human control for weapons systems to be compliant with international humanitarian law. Spain has consented as well to the 11 Principles on LAWS launched by France in 2019.[3965] The Spanish government, however, does not endorse the creation of a preemptive treaty prohibiting LAWS.[3966]

Spain was one of the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[3967]

Spain also submitted a working paper with Sweden, Finland, France, Germany, the Netherlands and Norway to the 2022 Chair of the Group of Governmental Experts on emerging technologies in the area of Lethal Autonomous Weapons Systems.[3968] This working paper presents a two-tier approach. Accordingly, States should commit to (1) outlaw fully autonomous lethal weapons systems operating completely outside human

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[3964] Ibid., Article 23 of the Law 15/2022, of July 12, 2002.

[3965] French Ministry for Europe and Foreign Affairs, *11 Principles on Lethal Autonomous Weapons Systems (LAWS)* (September 2019), https://www.diplomatie.gouv.fr/en/french-foreign-policy/united-nations/multilateralism-a-principle-of-action-for-france/alliance-for-multilateralism/article/11-principles-on-lethal-autonomous-weapons-systems-laws

[3966] Human Rights Watch, *Stopping Killer Robots- Country Positions on Banning Fully Autonomous Weapons Systems and Retaining Human Control* (Aug. 20, 2020), https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and#

[3967] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[3968] *Documents from the 2022 CCW Group of Governmental Experts on lethal autonomous weapon systems*. Convention on Certain Conventional Weapons, https://reachingcriticalwill.org/disarmament-fora/ccw

control and a responsible chain of command, and (2) regulate other lethal weapons systems featuring autonomy in order to ensure compliance with the rules and principles of international humanitarian law, by preserving human responsibility and accountability, ensuring appropriate human control and implementing risk mitigation measures.

In February 2023, Spain participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Spain endorsed a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[3969] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[3970]

Human Rights

Spain ranks highly for political rights and civil liberties, through there was a slight dip in the score of the last two years (90/100) as compared with 2020 (92/100). [3971] According to Freedom House, "Spain's parliamentary system features competitive multiparty elections and peaceful transfers of power between rival parties. The rule of law prevails,

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[3969] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

[3970] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[3971] Freedom House, *Freedom in the World 2022 – Spain (2022)*, https://freedomhouse.org/country/spain/freedom-world/2022; and *Freedom House, Freedom in the World 2020 – Spain (2020),* https://freedomhouse.org/country/spain/freedom-world/2020

and civil liberties are generally respected. (…) Restrictive legislation adopted or enforced in recent years poses a threat to otherwise robust freedoms of expression and assembly."[3972]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."

OECD / G20 AI Principles

Spain has endorsed the OECD AI Principles and incorporated many of them into the ENIA and the Digital Rights Charter.[3973] Spain is also a member of the Global Partnership on AI, a multi-stakeholder initiative which aims to foster international cooperation on AI research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[3974]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Spain has endorsed the UNESCO Recommendations on AI, the first ever global agreement on the ethics of AI.[3975]

[3972] Freedom House, *Freedom in the World 2022 – Spain (2022)*, https://freedomhouse.org/country/spain/freedom-world/2022

[3973] OECD.AI Policy Observatory, *Spain (2021)*, https://oecd.ai/en/dashboards/countries/Spain

[3974] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/

[3975] United Nations Educational, Scientific and Cultural Organization (UNESCO), *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (Nov. 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence.

Evaluation

Spain has developed a strong ethics-focused national AI strategy, created an independent Advisory Council, enacted a Charter for Digital Rights, and is already anticipating the entry into force of the EU AI Act by the creation of a new supervisory agency in charge of AI and a national regulatory sandbox to test high-risk AI systems. Spain has also endorsed the OECD AI Principles and the UNESCO Recommendation on the Ethics of AI. The Map of AI Technology Capabilities is the most authoritative source on AI developments in Spain, but it only includes technological capabilities without informing on adherence to ethical principles. Spain benefits from a strong data protection legal framework with an active data protection agency. It remains to be seen how the coordination will be ensured between the data protection agency and the new Agency for the Supervision of Artificial Intelligence.

Sweden

National AI Strategy

In May 2018, Sweden issued the National Approach to Artificial Intelligence. The National Approach reflects the government's goal "to make Sweden a leader in harnessing the opportunities that the use of AI can offer, with the aim of strengthening Sweden's welfare and competitiveness."[3976]

Sweden emphasized that a "cross-cutting theme should be sustainable AI, meaning that AI applications should be ethical, safe, secure, reliable and transparent" more specifically regarding "the use of AI algorithms." When referring to potential threats, the Government mentions "challenges related to rule of law procedures and the automation of agency decisions," "the risks to both society and individuals," "fundamental needs for privacy", "discrimination, loss of trust," and the consequences for the functioning of democracy.

Accountability is not mentioned. The emphasis is on responsible design and use of AI. For example, "it is important that AI systems are carefully designed to prevent them from doing harm. It is therefore important that companies and public institutions collaborate with relevant academics, for example through joint projects or staff exchanges."

The Swedish National Approach to AI should also be read against the background of a 2020 joint response to the European Commission's White Paper on AI.[3977] In this "non-paper," Sweden and 13 other EU member states, describe human-centric and trustworthy AI "as a competitive advantage." According to the non-paper, Sweden supports the use of hard law tools for "creating a genuinely single market for AI." Sweden also favors the use of "soft law solutions such as self-regulation, voluntary labelling and other voluntary practices as well as robust standardisation process." As for risks to individuals or to society stemming from the use of AI, Sweden advocates for an evidence-based and "well-calibrated and proportionate approach."

The Government defines the "key conditions for realising the potential of AI as (1) Education and training, (2) Research, (3) Innovation, and (4) Framework and infrastructure. Three Ministries – Ministry of

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[3976] Government Offices of Sweden, *National Approach to Artificial Intelligence* (May 2018), https://www.government.se/4a7451/contentassets/fe2ba005fb49433587574c513a837fac/national-approach-to-artificial-intelligence.pdf

[3977] *Non-paper - Innovative and trustworthy AI: two sides of the same coin* (Aug. 10, 2020), https://em.dk/media/13914/non-paper-innovative-and-trustworthy-ai-two-side-of-the-same-coin.pdf

Infrastructure; Ministry of Enterprise and Innovation; and Ministry of Education and Research – are responsible for AI policies and independent agencies under these Ministries implement these policies.

In relation to innovation , the Government's assessment is that
- Sweden needs pilot projects, testbeds and environments for development of AI applications in the public and private sectors, that can contribute to the use of AI evolving in a safe, secure and responsible manner.
- Sweden needs to develop partnerships and collaborations on the use of AI applications with other countries, especially within the EU.

In relation to framework and infrastructure, the Government's assessment is that
- Sweden needs to develop rules, standards, norms and ethical principles to guide ethical and sustainable AI and the use of AI.
- Sweden needs to push for Swedish and international standards and regulations that promote the use of AI and prevent risks.
- Sweden needs to continuously review the need for digital infrastructure to harness the opportunities that AI can provide.
- Sweden needs to continue to work on making data available to serve as infrastructure for AI use in areas where it adds value.
- Sweden needs to continue to play an active role in the EU's efforts to promote digitization and reap the benefits that the use of AI can bring.[3978]

The National Approach to Artificial Intelligence states, "The goal is closely linked to the digital transformation goal adopted by the Riksdag [the Swedish Parliament] and complements the Government's Digital Strategy."

In August 2018, the Swedish government created a Committee for Technological Innovation and Ethics (KOMET). AlgorithmWatch noted that the head of the Committee is "a former entrepreneur and CEO, whose prior work for the government included being head of the section for innovation within the Ministry of Enterprise and Innovation."[3979] AlgorithmWatch also complained that: "[t]he committee is tasked with producing analyses of barriers for the adoption of 'the fourth industrial revolution', such as existing regulatory frameworks, to map the need for

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[3978] Government Offices of Sweden, *National Approach to Artificial Intelligence*, (May 2018), https://www.government.se/4a7451/contentassets/fe2ba005fb49433587574c513a837fac/national-approach-to-artificial-intelligence.pdf6
[3979] Algorithmwatch, *Sweden: New governmental committee for coordinated and accelerated development of policies related to the fourth industrial revolution (2019-2020),* https://algorithmwatch.org/en/automating-society/sweden/

adjusting existing regulatory frameworks, to continuously come up with suggestions for the government regarding policy developments, promote a dialogue between relevant governmental agencies and regional actors, educational institutions, the non-governmental sector, and business for efficient collaboration concerning policy-developments. It is, however, not stated how, and more precisely which of these actors will be involved."

The Swedish Government acknowledged the General Data Protection Regulation (GDPR) as "an important part of the AI framework."[3980]

In September 2020, the International Bar Association released a report which stated, "there is currently no AI laws in Sweden. Historically, the legislative approach in Sweden has been to pass technology-agnostic legislation that does not need to be changed with every advance in technology."[3981] Thus, "it is of central priority for the Swedish legislator to assess current legislation from an AI perspective and implement necessary changes. Furthermore, support in the interpretation of legislation is required from courts and public authorities. Access to data, information security and robustness, together with the ethical use of AI, are principles of central importance in the future regulatory approach."

Sweden is holding Presidency of the Council of the European Union in the first half of 2023 where the negotiations of the EU AI Act is of high priority. Regarding Sweden's Presidency, Ann Christin Linde, Minister for Foreign Affairs of Sweden, while addressing the 77th Session of the General Assembly of the UN in September 2022 stated that Sweden will work to "protect, promote and defend democratic principles, human rights and the rule of law."[3982]

In a 2020 report, Sweden's Agency for Digital Administration (DIGG) recommended that the Government establish a center with expertise in AI; develop a platform for collaboration, co-development and innovation; develop an AI guide; create legal conditions to facilitate experimental activities; develop vocational and role-specific training in AI;

[3980] Government Offices of Sweden, *National Approach to Artificial Intelligence* (May 2018), https://www.government.se/4a7451/contentassets/fe2ba005fb49433587574c513a837fac/national-approach-to-artificial-intelligence.pdf6

[3981] International Bar Association, *Guidelines and Regulations to Provide Insights on Public Policies to Ensure Artificial Intelligence's Beneficial Use as a Professional Tool* (Sept. 2020), https://www.ibanet.org/Document/Default.aspx?DocumentUid=f5099a33-1e70-4a32-839d-589236b7568d

[3982] United Nations, *Sweden Minister for Foreign Affairs Addresses General Debate*, 77th Session (Sept. 24, 2022), https://media.un.org/en/asset/k10/k104bnnzx4

and develop a national data strategy for public administrations.[3983] DIGG also set up an expert group on AI for public administration, mainly composed of academics, which aims to provide advises to DIGG in the fulfilment of its mission.[3984]

AI Sweden also established a Legal Expert Group, which consists of legal experts from its partners. The Group discusses legal questions related to AI and data and they "collaborate in trying to create, for example, white papers, guidelines and/or common interpretations and solutions for legal issues that could benefit all partners within AI Sweden."[3985] In 2021, the Legal Expert Group met numerous times and discussed matters such as the practical use of applied AI, the concept of Federated Learning, questions regarding anonymization and pseudonymization, the EU Proposal for an AI Act, intellectual property rights, and standardized agreements for sharing data. AI Sweden and the Legal Expert Group also initiated a collaboration with the Swedish Authority for Privacy Protection (IMY). Future discussions will concentrate on using AI in a legal context, such as using natural language processing (NLP) as a tool in legal work. [3986]

Nordic-Baltic and Nordic Cooperation on AI

As for the regional landscape, Peter Eriksson, the Swedish Minister for Housing and Digital development, signed the declaration on "AI in the Nordic-Baltic region" establishing a collaborative framework on "developing ethical and transparent guidelines, standards, principles and values to guide when and how AI applications should be used" and "on the objective that infrastructure, hardware, software and data, all of which are central to the use of AI, are based on standards, enabling interoperability, privacy, security, trust, good usability, and portability."[3987]

The ministerial declaration Digital North 2.0[3988] builds on the common priorities of the Nordic-Baltic countries, and follows the previous

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[3983] DIGG, *Promote the ability of public administration to use AI*, (Jan. 13, 2020), https://www.digg.se/publicerat/publikationer/2020/framja-den-offentliga-forvaltningens-formaga-att-anvanda-ai

[3984] DIGG, *Referensgrupp inom AI*, https://www.digg.se/om-oss/regeringsuppdrag/oppna-data-datadriven-innovation-och-ai#referensgrupp_inom_ai, [MT].

[3985] AI Sweden, *Legal Expert Group,* https://www.ai.se/en/legal-expert-group

[3986] AI Sweden, Update from AI Sweden's Legal Expert Group (Jan. 17, 2022), https://www.ai.se/en/news/update-ai-swedens-legal-expert-group

[3987] Nordic and Baltic Ministers of Digitalization, *AI in the Nordic-Baltic region* (May 14, 2018), https://www.norden.org/en/declaration/ai-nordic-baltic-region

[3988] Nordic and Baltic Ministers of Digitalization, *Ministerial Declaration Digital North 2.0* (Sept. 29, 2020), https://www.norden.org/en/declaration/ministerial-declaration-digital-north-20

ministerial declaration, Digital North 2017-2020. "In order to promote work with digitalisation, co-ordinate efforts, and follow up on the goals of the declaration, a council of ministers for digitalisation (MR-DIGITAL) was established in 2017. The aim is to promote development in three areas: (1) Increase mobility and integration in the Nordic and Baltic region by building a common area for cross-border digital services; (2) Promote green economic growth and development in the Nordic-Baltic region through data-driven innovation and a fair data economy for efficient sharing and re-use of data; and (3) Promote Nordic-Baltic leadership in the EU/EEA and globally in a sustainable and inclusive digital transformation of our societies."[3989]

In November 2021, the Nordic and Baltic ministers for digitalization released another joint statement announcing a focus on digital inclusion, striving to implement measures to make digital services more accessible to all Swedish inhabitants and ensuring that those who do not possess the necessary level of skills get the opportunity to acquire them. [3990]

In September 2022, the Nordic and Baltic ministers of digitalization issued a common statement on the importance of cooperation on digital security in the Nordic-Baltic region following the COVID-19 pandemic and the war in Ukraine. In their common statement, the ministers stressed that this "rapid transformation has challenged everyone to adapt to new, digital ways of doing business, learning and accessing public authorities." The ministers declared that they "have committed to ensuring that our region maintains its position as a leader in digitalisation, and that everyone in the region benefit from digitalisation regardless of age, wealth, education or level of digital skills. One important factor that helps ensure a strong level of digitalisation in the region is the trust citizens put in digital services from the public sector – be it at regional, national or local level. In order to keep up this high level of trust, we need to continue our efforts to make our digital public services human centric and accessible. (…) Robust and secure digital services, safeguarding users' privacy and ensuring that personal data are stored and processed in a trustworthy way, are crucial to the citizens' sustained trust in digital services."[3991]

[3989] Nordic Co-operation, *Nordic-Baltic co-operation on digitalisation*, https://www.norden.org/en/information/nordic-baltic-co-operation-digitalisation
[3990] Nordic and Baltic Ministers of Digitalization, *Common statement on the importance of promoting digital inclusion as a central part of the digital transformation in the Nordic-Baltic region* (Nov. 26, 2021), https://www.norden.org/en/declaration/common-statement-importance-promoting-digital-inclusion-central-part-digital
[3991] Nordic and Baltic Ministers of Digitalization, *Common statement on the importance of cooperation on digital security in the Nordic-Baltic region* (Sept. 6, 2022),

As part of its action plan for Vision 2030 (2021-2024), the Nordic Council of Ministers also identified innovation, digital integration, the safe use of artificial intelligence, data development and open data, education and digitalization as key objectives.[3992] The Nordic Council of Ministers also emphasizes the involvement of civil society in efforts relating to our vision for 2030 thanks to "a Nordic civil society network and public consultations."[3993]

Public Participation

As for public participation, the Government states in the National Approach that "For Sweden to reap the benefits of AI, all sectors of society must be involved." It is, however, debatable to what extent different groups in society are actually involved. According to AlgorithmWatch, most of the funding and strategic development takes place in the universities and as support for business environments."[3994] Nevertheless, AlgorithmWatch also describes the "addAI initiative" which "is a collaboration between experts in academia, government and companies to discuss and explore the impact of smart algorithms and AI on society through the organisation of workshops and participation in public events."

In October 2021, the "Future of Democracy Summit" hosted stakeholders from business, civil society, academia, and government to discuss sustainable AI and democracy.[3995]

Data Protection

Since Sweden is an EU Member State, the GDPR[3996] is directly applicable in Sweden and to Swedes. The aim of the GDPR is to "strengthen

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https://www.norden.org/en/declaration/common-statement-importance-cooperation-digital-security-nordic-baltic-region

[3992] Nordic Council of Ministers, *The Nordic Region – toward being the most sustainable and integrated region in the world, Action Plan for 2021-2024* (Dec. 14, 2020), https://www.norden.org/en/publication/nordic-region-towards-being-most-sustainable-and-integrated-region-world

[3993] Nordic Council of Ministers, *Guidelines for involving civil society in work relating to Our Vision 2030* (Feb. 12, 2021), https://www.norden.org/en/publication/guidelines-involving-civil-society-work-relating-our-vision-2030

[3994] Anne Kuan and Julia Velkovia, *Automating Society: Sweden* (Jan. 29, 2019), https://algorithmwatch.org/en/automating-society-sweden/

[3995] Future of Democracy, *Sustainable citizenship in a digital age – Future of Democracy Summit* https://www.futureofdemocracy.se/summit

[3996] *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data*, https://eur-lex.europa.eu/EN/legal-content/summary/general-data-protection-regulation-gdpr.html

individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market. A single law will also do away with the current fragmentation in different national systems and unnecessary administrative burdens."[3997] The GDPR entered into force on 24 May 2016 and applies since 25 May 2018. In April 2018, the Swedish parliament adopted the Data Protection Act (DPA), with complementary provisions to the GDPR. The DPA replaced the old Personal Data Act as of 25 May 2018. The Swedish Camera Surveillance Act supplements the GDPR and applies to processing of personal data in connection with camera surveillance. The Swedish Patient Data Act for its part enshrines requirements for public and private healthcare providers' personal data processing in relation to healthcare activities, including the obligation to keep medical records.

Regarding the activities of law enforcement authorities, Sweden transposed the EU Data Protection Law Enforcement Directive (LED)[3998] through the Swedish Criminal Data Act. It applies to personal data processing within law enforcement activities such as the Swedish Police Authority and hospitals if someone is sentenced to compulsory psychiatric care. The Swedish Police Data Act supplements the Swedish Criminal Data Act in relation to personal data processing carried out by the Swedish Police Authority, the Swedish Economic Crime Authority, and the Swedish Security Service. The LED "protects citizens' fundamental right to data protection whenever personal data is used by criminal law enforcement authorities for law enforcement purposes. It will in particular ensure that the personal data of victims, witnesses, and suspects of crime are duly protected and will facilitate cross-border cooperation in the fight against crime and terrorism."[3999] The LED provides for the prohibition of any decision based solely on automated processing, unless it is provided by law, and of profiling that results in discrimination.[4000] The LED also requires for

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[3997] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[3998] *Directive (EU) 2016/680 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data by competent authorities for the purposes of the prevention, investigation, detection or prosecution of criminal offences or the execution of criminal penalties, and on the free movement of such data, and repealing Council Framework Decision 2008/977/JHA*, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

[3999] European Commission, *Data protection in the EU*, https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en

[4000] Article 11 (1) and (2) of the LED, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02016L0680-20160504

Member States, including Sweden, to enable data subjects to exercise their rights via national data protection authorities.[4001]

The EU Charter of Fundamental Rights more generally provides that EU citizens have the right to protection of their personal data. Article 8 of the Charter states that: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law."

Sweden is also a member of the Council of Europe. It signed but has not yet ratified[4002] the Council of Europe's Convention 108+ for the protection of individuals with regard to the processing of personal data.[4003]

The Swedish Government acknowledged the GDPR as "an important part of the AI framework."[4004] Sweden's Authority for Privacy Protection (IMY)'s "role is to uphold the protection of personal data, monitoring that they are handled correctly and do not fall into the wrong hands."[4005] In 2019, the IMY issued its first fine in a case involving facial recognition. The IMY concluded that a school that conducted a pilot using facial recognition to keep track of students' attendance in school violated the GDPR and imposed a fine on the municipality of approximately 20,000 euros.[4006] The IMY has also held the police accountable for its unlawful use of facial recognition technology, which is detailed further in the facial recognition section below.[4007]

In August 2022, the IMY, in conjunction with Sahlgrenska University Hospital, Region Halland and AI Sweden, launched a pilot

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[4001] Article 17 of the LED.

[4002] Council of Europe, *Chart of signatures and ratifications of Treaty 223* (status as March 22, 2023), https://www.coe.int/en/web/conventions/full-list?module=signatures-by-treaty&treatynum=223

[4003] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[4004] Government Offices of Sweden, *National Approach to Artificial Intelligence* (May 2018), https://www.government.se/4a7451/contentassets/fe2ba005fb49433587574c513a837fac/national-approach-to-artificial-intelligence.pdf6

[4005] Swedish Authority for Privacy Protection, *Welcome to IMY*, https://www.imy.se/en/

[4006] Swedish Authority for Privacy Protection, *Facial recognition in school renders Sweden's first GDPR fine*, 21 August 2019, https://www.imy.se/en/about-us/arkiv/nyhetsarkiv/facial-recognition-in-school-renders-swedens-first-gdpr-fine/

[4007] European Data Protection Board, *Swedish DPA: Police unlawfully used facial recognition app* (Feb. 11, 2021), https://edpb.europa.eu/news/national-news/2021/swedish-dpa-police-unlawfully-used-facial-recognition-app_en

program for decentralized AI. Working with the three organizations on the potential privacy and data protection pitfalls that may arise using AI, the data watchdog will provide legal guidance and supervision for the project.[4008]

Despite being a member of the Global Privacy Assembly (GPA) since 2002, the IMY has not endorsed the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence;[4009] the 2020 GPA Resolution on AI Accountability;[4010] or the 2022 GPA Resolution on Facial Recognition Technology.[4011]

The independent Equality Ombudsman (DO) also plays a role in ensuring the absence of discrimination which could result from a biased algorithm.[4012]

Sweden is also a member of the Council of Europe and ratified the Council of Europe's Convention 108 for the protection of individuals with regard to the processing of personal data. Sweden also signed its modernized version[4013] in 2018 but has not ratified it yet.

In May 2019, the Ministry of Infrastructure launched three assignments to strengthen the country's open access efforts. [4014] It assigned

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[4008] IAPP, *Sweden's DPA creates pilot program for decentralized AI* (Aug. 30, 2022), https://iapp.org/news/a/swedens-dpa-creates-pilot-program-for-decentralized-ai/, https://www.imy.se/nyheter/nytt-arbetssatt-testas-for-att-ge-innovationsprojekt-vagledning-om-dataskydd/

[4009] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[4010] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf

[4011] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[4012] Diskriminerings Ombudsmannen, *Welcome to the Equality Ombudsman* (Oct. 20, 2020), https://www.do.se/other-languages/english/. See also Emma Lundberg, *Automated decision-making vs indirect discrimination – Solution or aggravation* (2019), https://www.diva-portal.org/smash/get/diva2:1331907/FULLTEXT01.pdf

[4013] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[4014] Swedish Government, *The government is gathering strength around artificial intelligence and open data* (May 2, 2019),

Sweden's Lantmäteriet to analyze the consequences of free access to valuable amounts of data, a special investigator to analyze "the need for constitutional amendments and ensure appropriate national regulation", and Sweden's Agency for Digital Administration (DIGG) to "increase the public administration's ability to make open data available and to conduct open and data-driven innovation."[4015] This has resulted in the launch of Sweden's data portal with new functionality for APIs, and the establishment of principles, guidelines, and recommendations "in order to increase the public administration's ability to make open data available."[4016] Much of this work was based on DIGG's piloted projects with business, academia, and civil society at challengesgov.se.

Algorithmic Transparency

Sweden is subject to the GDPR which established rights to "meaningful information about the logic involved" as well as about "the significance and the envisaged consequences."[4017] The Swedish Data Protection Authority is competent to handle complaints in this regard.[4018] In 2019, the Equality Ombudsman Agneta Broberg warned that the sanctions available under the Discrimination Act are not effective to tackle the challenges of AI and discriminatory algorithms.[4019]

Following the Trelleborg episode concerning automated decisions by municipalities, the Union for Professionals called for the creation of an algorithm ombudsman. [4020] "The Union has, among other things, conducted a survey that shows that the requirement for an Algorithm Ombudsman

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www.regeringen.se/pressmeddelanden/2019/05/regeringen-kraftsamlar-kring-artificiell-intelligens-och-oppna-data.

[4015] Swedish Government, *The government is gathering strength around artificial intelligence and open data* (May 2, 2019), www.regeringen.se/pressmeddelanden/2019/05/regeringen-kraftsamlar-kring-artificiell-intelligens-och-oppna-data

[4016] DIGG, Öppna data, datadriven innovation och AI (Open data, data-driven innovation and AI) (Jan. 29, 2021), https://www.digg.se/publicerat/publikationer/2021/oppna-data-datadriven-innovation-och-ai

[4017] Article 22 and Article 13(2)f) GDPR

[4018] The Swedish Data Protection Authority, https://www.datainspektionen.se/other-lang/in-english/

[4019] Diskriminerings Ombudsmannen*, Skyddet mot diskriminering behöver ses över (Protection Against Discrimination Needs to be Reviewed),* (Feb. 21, 2020), https://www.do.se/om-do/pressrum/aktuellt/aktuellt-under-2020/skyddet-mot-diskriminering-behover-ses-over/; Diskriminerings Ombudsmannen, *Annual Report 2019,* https://www.do.se/globalassets/om-do/do-arsredovisning-2019.pdf

[4020] Union for Professionals, *Algorithm Policy in a Digital World*, https://akademssr.se/opinion/algoritmpolitik

has broad support among the public - and that transparency and openness are absolutely crucial for there to be trust in algorithms and automation." In this regard, a 2020 survey organized by BEUC, the European Consumer Organization, which involved the Swedish Consumer Organization, revealed that "more than half of Sweden's consumers feel that artificial intelligence (AI) is used to manipulate them. And over 60 percent wish they could say no to automated decision making."[4021]

The Equality Ombudsman (DO), may also play a part in ensuring the absence of discrimination which could result from a biased algorithm.[4022] The case of Freddi Ramel v. the Trelleborg municipality which will be further detailed makes clear that the principle of public access does cover the source code of the software used for automated decisions and can be vindicated before the relevant administrative court.

The Trellborg Controversy

The automation of government services has been underway in Sweden since the 1970s. By 2019, "more than 80% of all government decisions that the National Audit has reviewed were automated. This involves 121 million decisions by 13 authorities."[4023] Various benefits, such as Welfare payments, from parental benefits to dental care subsidies, are allocated without any human intervention.

As for municipalities, who are in charge of social services, a 2019 report published by the Union for Professionals, found that "only 16 out of a total of 290 municipalities have implemented RPA [Robotic Processing Automation] in their administration of social benefits."[4024] The Trellborg Municipality was the only one to implement solely automated decision-making.

In 2019 the journalist Freddi Ramel, and Simon Vinge, chief economist at the Union for Professionals, challenged the Trelleborg automated decision system. According to AlgorithmWatch, the Swedish

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[4021] https://www.sverigeskonsumenter.se/nyheter-press/nyheter-och-pressmeddelanden/las-mer-om-undersokningen-har/ [MT]; BEUC, *Artificial intelligence: what consumers say*, https://www.sverigeskonsumenter.se/media/kbgf3wya/beuc-ai.pdf

[4022] Diskriminerings Ombudsmannen, *Welcome to the Equality Ombudsman* (Oct. 20, 2020), https://www.do.se/other-languages/english/. See also Emma Lundberg, *Automated decision-making vs indirect discrimination – Solution or aggravation* (2019), https://www.diva-portal.org/smash/get/diva2:1331907/FULLTEXT01.pdf

[4023] Nord News, *The Swedish National Audit Office: Automatic government decisions are becoming more common* (Nov. 19, 2020), https://nord.news/2020/11/19/the-swedish-national-audit-office-automatic-government-decisions-are-becoming-more-common/

[4024] Lupita Svensson, *Tekniken är den enkla biten" Om att implementera digital automatisering i handläggningen av försörjningsstöd* (2019), https://akademssr.se/sites/default/files/files/LupitaSvensson.pdf

Parliamentary Ombudsman has so far failed to determine whether the municipality provided "meaningful information" as required by Article 15 of the GDPR.[4025] However, Ramel obtained access to the source code after a court ruled that the code was a public record under the Swedish Freedom of Information Act. The Trelleborg municipality subsequently undertook an investigation.

Facial recognition

In 2019, the Swedish DPA issued its first fine in a case involving facial recognition. A school in northern Sweden conducted a pilot using facial recognition to keep track of students' attendance in school. The Swedish DPA concluded that the test violates the GDPR and imposed a fine on the municipality of approximately 20,000 euros. The school processed sensitive biometric data unlawfully and failed to do an adequate impact assessment including seeking prior consultation with the Swedish DPA. The school based the processing on consent but the Swedish DPA considers that consent was not a valid legal basis given the clear imbalance between the data subject and the controller.[4026]

In March 2020, the data protection officer for the Swedish police undertook an investigation to determine whether the police may have used ClearView AI, an AI product for mass surveillance enabled by facial recognition.[4027] The Swedish police confirmed that they have used Clearview AI, after previously denying use of the face surveillance tool.[4028] Subsequently, the IMY "initiated an inspection to find out whether Swedish authorities use the face recognition technology provided by the US company Clearview AI."[4029] The IMY noted that the European Data Protection Board (EDPB) "will produce guidance on how law enforcement

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[4025] AlgorithmWatch, *Central authorities slow to react as Sweden's cities embrace automation of welfare management* (2020),
https://automatingsociety.algorithmwatch.org/report2020/sweden/sweden-story/

[4026] https://www.datainspektionen.se/nyheter/2019/facial-recognition-in-school-renders-swedens-first-gdpr-fine/

[4027] SVT NYHETER, *Intern utredning: Polisen får inte använda kritiserad AI-tjänst – skulle bryta mot lagen* (Mar. 6, 2020) [MT], https://www.svt.se/nyheter/inrikes/svensk-polis-forbjuds-att-anvanda-kontroversiella-ai-tjansten

[4028] Mikael Grill Peterson and Linea Carlén, *Polisen bekräftar: Har använt omdiskuterade Clearview AI,* SVT NYHETER, (March 11, 2020) [MT], https://www.svt.se/nyheter/inrikes/ekot-polisen-bekraftar-anvandning-av-kontroversiell-app

[4029] The Swedish Data Protection Authority, *The Data Inspectorate initiates supervision due to Clearview AI* (March 6, 2020), https://www.datainspektionen.se/nyheter/datainspektionen-inleder-tillsyn-med-anledning-av-clearview-ai/

authorities should approach facial recognition technology. Sweden is one of the driving countries in the world." The EDPB indeed issued guidelines on the use of facial recognition technologies in the area of law enforcement in May 2022.[4030] "EDPB Chair Andrea Jelinek said: "While modern technologies offer benefits to law enforcement, such as the swift identification of suspects of serious crimes, they have to satisfy the requirements of necessity and proportionality. Facial recognition technology is intrinsically linked to processing personal data, including biometric data, and poses serious risks to individual rights and freedoms." The EDPB stresses that facial recognition tools should only be used in strict compliance with the Law Enforcement Directive (LED). Moreover, such tools should only be used if necessary and proportionate, as laid down in the Charter of Fundamental Rights."[4031]

Before the release of the EDPB guidelines, in 2021, the IMY found that the Swedish Police Authority had processed personal data in breach of the Swedish Criminal Data Act when using Clearview AI to identify individuals.[4032] The investigation concluded that Cleaview AI had been used by the Police on several occasions and sometimes without any prior authorisation. The Police had failed to implement sufficient organisational measures to ensure and be able to demonstrate that the processing of personal data in this case had been carried out in compliance with the Criminal Data Act. No impact assessment had been concluded. As a result, the IMY imposed a 250,000 Euros fine.

In 2019, the Swedish DPA did approve the use of facial recognition technology by the police to help identify criminal suspects. However, such an authorization relates to the use of biometric templates in databases under the control of public authorities and established under Union or Member States law.[4033] As Andrea Jelinek, Chair of the European Data Protection

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[4030] European Data Protection Board, _Guidelines 05/2022 on the use of facial recognition technology in the area of law enforcement_ (May12, 2022), https://edpb.europa.eu/system/files/2022-05/edpb-guidelines_202205_frtlawenforcement_en_1.pdf

[4031] European Data Protection Board, _EDPB adopts Guidelines on calculation of fines & Guidelines on the use of facial recognition technology in the area of law enforcement_ (May 16, 2022), https://edpb.europa.eu/news/news/2022/edpb-adopts-guidelines-calculation-fines-guidelines-use-facial-recognition_en

[4032] European Data Protection Board, _Swedish DPA: Police unlawfully used facial recognition app_ (Feb. 11, 2021), https://edpb.europa.eu/news/national-news/2021/swedish-dpa-police-unlawfully-used-facial-recognition-app_en

[4033] Official Journal of the European Union, _Directive EU 2016/680 of the European Parliament and of the Council_ (Apr. 27, 2016), https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016L0680&from=EN

Body, subsequently emphasized, "[t]he possible use of a service such as offered by Clearview AI by law enforcement authorities would, however, be fundamentally different, in that it would imply, as part of a police or criminal investigation, the sharing of personal data with a private party outside the Union and the biometric matching of such data against the latter's mass and arbitrarily populated database of photographs and facial pictures accessible online."[4034] She also clearly questioned the legality of the use of Clearview AI by public authorities.

Lethal Autonomous Weapons

Beginning in 2013, Swedish NGOs called for Sweden to endorse an official ban of LAWS.[4035] As one NGO coalition stated recently, "A future where machines themselves decide over life and death, what and who is to be attacked in an armed conflict, is not the future we want. But the fact is that we are on our way there - and development is fast."[4036] Previously, leaders in the Swedish government declared that "Sweden must take a leading role in the work for a ban on deadly autonomous weapon systems." However, the position adopted by Sweden so far seems to be more nuanced.

The Swedish government has emphasized human control and said "that multilateralism remains our only chance to address our many common challenges and to ensure international peace and security."[4037] At the 75th UN General Assembly meeting in October 2020, Sweden's Ambassador stated "Sweden is of the strong conviction that human control over the use of force always must be upheld." She also expressed Sweden's support to

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[4034] European Data Protection Board, *EDPB response to MEPs Sophie in 't Veld, Moritz Körner, Michal Šimečka, Fabiene Keller, Jan-Christoph Oetjen, Anna Donáth, Maite Pagazaurtundúa, Olivier Chastel, concerning the facial recognition app developed by Clearview AI* (June 10, 2020) https://edpb.europa.eu/sites/edpb/files/files/file1/edpb_letter_out_2020-0052_facialrecognition.pdf

[4035] Campaign to Stop Killer Robots, *Building Awareness in Sweden* (Oct. 13, 2020), https://www.stopkillerrobots.org/2013/10/sweden-outreach/;

[4036] Amnesty International Sweden, *Sweden Must Stand Against Killer Robots* (Sept. 21, 2020) [MT], https://www.amnesty.se/aktuellt/sverige-maste-sta-upp-mot-mordarrobotar-debattartikel-publicerad-209-2020/

[4037] Government of Sweden, Ministry of Foreign Affairs, *Statement delivered by Ambassador Anna Karin Eneström, Permanent Representative of Sweden to the United Nations at the General Debate of the First Committee,* 75th session of the UN General Assembly, United Nations (Oct. 14, 2020), https://reachingcriticalwill.org/images/documents/Disarmament-fora/1com/1com20/statements/14Oct_Sweden.pdf

the 11 LAWS Guiding Principles.[4038] Earlier, Sweden also explained that the "specific measures required for human control will thus need to be context dependent and assessed on a case-by-case basis" and referred to a report, supported by Sweden, together with Germany, Switzerland and the Netherlands.[4039] The Swedish government has also set up a working group on autonomous weapons. According to the NGO the Swedish Peace and Arbitration Society, this "working group is defense-oriented, with a majority of its members coming from defense-related authorities and institutions."[4040]

Sweden was one of the 70 countries that endorsed a joint statement on autonomous weapons systems at the 2022 United Nations General Assembly. The joint statement urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[4041]

Sweden also submitted a working paper with Finland, France, Germany, the Netherlands, Norway, and Spain to the 2022 Chair of the Group of Governmental Experts on emerging technologies in the area of Lethal Autonomous Weapons Systems.[4042] This working paper presents a two-tier approach. Accordingly, States should commit to (1) outlaw fully autonomous lethal weapons systems operating completely outside human control and a responsible chain of command, and (2) regulate other lethal weapons systems featuring autonomy in order to ensure compliance with

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[4038] Geneva Internet Platform, *GGE on lethal autonomous weapons systems,* https://dig.watch/process/gge-laws#view-14508-1

[4039] Stockholm International Peace Research Institute, *Limits on Autonomy in Weapon Systems: Identifying Practical Elements of Human Control* (June 2020), https://www.sipri.org/publications/2020/other-publications/limits-autonomy-weapon-systems-identifying-practical-elements-human-control-0

[4040] Swedish Peace and Arbitration Society, *Questions and Answers about Killer Robots,* [MT] https://www.svenskafreds.se/vad-vi-gor/nedrustning/stoppamordarrobotar/faq-mordarrobotar/

[4041] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[4042] *Documents from the 2022 CCW Group of Governmental Experts on lethal autonomous weapon systems.* Convention on Certain Conventional Weapons, https://reachingcriticalwill.org/disarmament-fora/ccw

the rules and principles of international humanitarian law, by preserving human responsibility and accountability, ensuring appropriate human control and implementing risk mitigation measures.

In February 2023, Sweden participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Sweden endorsed a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[4043] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[4044]

Human Rights

Sweden is a signatory to many international human rights treaties and conventions, among which the Universal Declaration of Human Rights and the Council of Europe's European Convention on Human Rights. However, it has not yet ratified the modernized version of the Council of Europe Convention 108 for the protection of individuals with regard to the processing of personal data.[4045]

[4043] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action
[4044] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action
[4045] Council of Europe, *Chart of signatures and ratifications of Treaty 223*, https://www.coe.int/en/web/conventions/full-list?module=signatures-by-treaty&treatynum=223

According to Freedom House, Sweden typically ranks among the top nations in the world for the protection of human rights and transparency. "Civil liberties and political rights are legally guaranteed and respected in practice, and the rule of law prevails."[4046] It consequently earns a perfect 100/100 score.

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[4047]

OECD / G20 AI Principles

Sweden endorsed the OECD AI Principles. In 2021, the OECD noted that Sweden published a document outlining its national approach to AI in 2019. "The purpose of this document was to identify an overall direction for AI-related work in Sweden and lay the foundation for future priorities." Sweden also described an AI governance structure with "three Ministries – Ministry of Infrastructure; Ministry of Enterprise and Innovation; and Ministry of Education and Research – are responsible for AI policies and independent agencies under these Ministries implement these policies,"[4048] which are considered by the OECD has positive steps regarding the implementation of the OECD AI Principles.

Sweden is a member of the Global Partnership on AI, a multi-stakeholder initiative which aims to foster international cooperation on AI

[4046] Freedom House, *Freedom in the World 2023– Sweden (2023),*
https://freedomhouse.org/country/sweden/freedom-world/2023
[4047] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020),
https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154
[4048] OECD, *State of Implementation of the OECD AI Principles: Insights from National AI Policies* (June 2021), https://www.oecd.org/digital/state-of-implementation-of-the-oecd-ai-principles-1cd40c44-en.htm

research and applied activities and which is "built around a shared commitment to the OECD Recommendation on Artificial Intelligence."[4049]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Sweden has endorsed the UNESCO Recommendation on AI, the first ever global agreement on the ethics of AI.[4050] It remains to be seen how this endorsement will translate in practice.

Evaluation

Sweden endorsed the OECD AI Principles and has been committed to developing trustworthy AI. Sweden ranks at the top among nations for the protection of political rights and civil liberties and has proactive ombudsman institutions and an active data protection agency. However, Sweden's opposition, along with other Nordic and Baltic countries, to a strong regulatory framework for AI raises concern about Sweden's ability to both support technical innovation and avoid ethical risks. Despite its excellent human rights record, the absence of ratification of the modernized version of the Council of Europe Convention 108 for the protection of individuals with regard to the processing of personal data raise questions and it remains to be seen how Sweden's endorsement of the UNESCO Recommendation on the Ethics of Artificial Intelligence will translate in practice.

[4049] Government of Canada, *Canada concludes inaugural plenary of the Global Partnership on Artificial Intelligence with international counterparts in Montreal* (Dec. 4, 2020), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/

[4050] United Nations Educational, Scientific and Cultural Organization (UNESCO), *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (Nov. 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence.

Switzerland

National AI Strategy

The Swiss government recently announced AI Guidelines for the Federal Government.[4051] The AI Guidelines are intended to ensure a coherent government policy for AI. The AI Guidelines emphasize putting people at the center; Framework conditions for the development and use of AI, Transparency, traceability and Explainability; Accountability; Safety; Active participation in shaping the governance of AI; and Involvement of all affected national and international actors. Specific AI guidelines will be formulated for education and science. Future AI work will be undertaken by the Federal Office of Communications OFCOM together with the federal agencies concerned.[4052]

The AI Guidelines follow from the Digital Switzerland Strategies. These strategies encompass the Swiss governments principles and key objectives for the digital transformation across all sectors.[4053][4054][4055] Although these reports do not have the sole focus of AI, the federal government has taken further action to focus on AI. Following the Digital Switzerland Strategy 2018, the federal government identified several areas for further enquiry:

- International law and the use of AI in public opinion and decision making
- How the use of AI in the federal administration can be improved

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[4051] Der Bundesrat, *Leitlinien*, "*Künstliche Intelligenz" für den Bund* (Nov. 2020) [DT], https://www.sbfi.admin.ch/dam/sbfi/de/dokumente/2020/11/leitlinie_ki.pdf.download.pdf /Leitlinien%20Künstliche%20Intelligenz%20-%20DE.pdf

[4052] Der Bundesrat, *Leitlinien "Künstliche Intelligenz" für die Bundesverwaltung verabschiedet* (Nov. 25, 2020) [DT], https://www.admin.ch/gov/de/start/dokumentation/medienmitteilungen.msg-id-81319.html)

[4053] Schweizerischer Eidgenossenschaft, Digital Switzerland» Strategy, September 2020, https://www.bakom.admin.ch/dam/bakom/en/dokumente/informationsgesellschaft/strateg ie/strategie_digitale_schweiz.pdf.download.pdf/Strategie-DS-2020-EN.pdf

[4054] Schweizerischer Eidgenossenschaft, Digital Switzerland» Strategy, September 2018, https://www.bakom.admin.ch/dam/bakom/en/dokumente/informationsgesellschaft/strateg ie/Strategie_DS_Digital_2-EN-barrierenfrei.pdf.download.pdf/Strategie_DS_Digital_2-EN-barrierenfrei.pdf

[4055] Schweizerischer Eidgenossenschaft, Digital Switzerland» Strategy, April 2016, https://www.bakom.admin.ch/dam/bakom/en/dokumente/bakom/digitale_schweiz_und_i nternet/Strategie%20Digitale%20Schweiz/Strategie/Strategie%20Digitale%20Schweiz.p df.download.pdf/digital_switzerland_strategy_Brochure.pdf

- The Department of Education, Research and Innovation (SBFI) was given the task of preparing stakeholders for the digital transformation through their policy work.
- An Interdepartmental Working Group on Artificial Intelligence was established to pursue strategic objectives for the federal government.[4056]

These areas of further enquiry resulted in three reports prepared by the federal government with the following focuses:

- Artificial Intelligence in Cyber Security and Security Policy[4057]
- International Committees and Artificial Intelligence[4058]
- Artificial Intelligence, the Media and the Public[4059]

The report on "Artificial Intelligence in Cyber Security and Security Policy" gives an overview of how AI is influencing national security and how the military and government are dealing with this. It further lists considerations that need to be made in this regard. This includes how fundamental and human rights are affected, how legal and ethical considerations can be integrated and what new regulatory measures need to be implemented. [4060]

The report on International Committees and Artificial Intelligence also gives an overview of different international organizations and their efforts in AI policy. It further goes on to give recommendations of concrete action in Swiss foreign policy. The report mentions the importance of the

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[4056] Schweizerischer Eidgenossenschaft: Staatssekretariat für Bildung, Forschung und Innovation SBFI, Künstliche Intelligenz, https://www.sbfi.admin.ch/sbfi/de/home/bfi-politik/bfi-2021-2024/transversale-themen/digitalisierung-bfi/kuenstliche-intelligenz.html

[4057] Schweizerischer Eidgenossenschaft: Eidgenössisches Department für Verteidigung, Bevölkerungsschutz und Sport, Künstliche Intelligenz in der Cybersicherheit und Sicherheitspolitik, https://www.sbfi.admin.ch/dam/sbfi/de/dokumente/2019/12/k-i_c-s.pdf.download.pdf/k-i_c-s_d.pdf

[4058] Schweizerischer Eidgenossenschaft, International Gremien und Künstliche Intelligenz, August 2019, https://www.sbfi.admin.ch/dam/sbfi/de/dokumente/2019/12/i-g_k-i.pdf.download.pdf/i-g_ki_d.pdf

[4059] Schweizerischer Eidgenossenschaft: Eidgenössisches Department für Umwelt, Verkehr, Energie und Kommunikation UVEK, Künstliche Intelligenz, Medien und Öffentlichkeit, August 2019, https://www.sbfi.admin.ch/dam/sbfi/de/dokumente/2019/12/i-g_k-i.pdf.download.pdf/i-g_ki_d.pdf

[4060] Schweizerischer Eidgenossenschaft: Eidgenössisches Department für Verteidigung, Bevölkerungsschutz und Sport, Künstliche Intelligenz in der Cybersicherheit und Sicherheitspolitik, 2019. https://www.sbfi.admin.ch/dam/sbfi/de/dokumente/2019/12/k-i_c-s.pdf.download.pdf/k-i_c-s_d.pdf

Swiss governments taking a position that upholds existing Swiss values like the respect of human rights, the rule of law, democracy and liberal values.[4061]

The report on Artificial Intelligence, the Media and the Public outlines the challenges associated with AI and mass media. It describes current regulations and areas that could be improved. The report mentions the importance of ensuring transparency, accountability and traceability/comprehensibility when AI is deployed in journalism, in the media or in social media.[4062]

The 2019 Report of the Interdepartmental Working Group on Artificial Intelligence summarizes three reports by the federal government. The report attempts to give an overview of AI, the current legal situation and then considers AI in 17 different policy areas. The report emphasizes the need for transparency, fairness or non-discrimination, accountability and compliance with fundamental and human rights. The group points out that the more human or fundamental rights are involved in a topic, the more transparency and comprehensibility is required. They came to the conclusion that no fundamental change to the Swiss regulatory framework is necessary due to the fact that the legal principles of Swiss technology policy are formulated in a technology-neutral manner which allows them to be applied to AI systems. However, made several recommendations:

- AI should be monitored continuously as the report is only a snapshot of the current situation and respective legal action need to be taken when new developments are identified
- The Swiss government should engage in more international information and knowledge sharing on AI governance
- AI policy should be integrated into the "Digital Switzerland" Strategy
- Clarification of the 17 policy areas are necessary.[4063]

[4061] Schweizerischer Eidgenossenschaft, International Gremien und Künstliche Intelligenz, August 2019, https://www.sbfi.admin.ch/dam/sbfi/de/dokumente/2019/12/i-g_k-i.pdf.download.pdf/i-g_ki_d.pdf

[4062] Schweizerischer Eidgenossenschaft: Eidgenössisches Department für Umwelt, Verkehr, Energie und Kommunikation UVEK, Künstliche Intelligenz, Medien und Öffentlichkeit, August 2019, https://www.sbfi.admin.ch/dam/sbfi/de/dokumente/2019/12/k-i_m-o.pdf.download.pdf/k-i_m-o_d.pdf

[4063] Schweizerische Eidgenossenschaft: Interdepartementalen Arbeitsgruppe «Künstliche Intelligenz», Herausforderungen der künstlichen Intelligenz: Bericht der interdepartementalen Arbeitsgruppe «Künstliche Intelligenz» an den Bundesrat, https://www.sbfi.admin.ch/dam/sbfi/de/dokumente/2019/12/bericht_idag_ki.pdf.download.pdf/bericht_idag_ki_d.pdf

These recommendations were then integrated in the Digital Switzerland Strategy 2020.[4064] The Strategy 2020 emphasizes: Putting people at the forefront, providing room for development, facilitating structural change, and networking the shaping of transformation processes. [4065] And the following key objectives:

- Enabling equal participation for all and strengthening solidarity
- Guaranteeing security, trust and transparency
- Continuing to strengthen people's digital empowerment and self-determination
- Ensuring value creation, growth and prosperity
- Reducing the environmental footprint and energy consumption

In comparison to the 2018-2020 Strategy, the 2020-2022 Strategy emphasizes "the aspects of data and environment."[4066] Transparency, sustainable development and equal opportunities and participation have been key objectives encompassed in these reports since the first version was released in 2016.[4067][4068]

Swiss Foreign Policy and AI

One of the thematic focus areas of the Swiss Foreign Policy Strategy 2020-2023 is "digitalization." The Federal Department of Foreign Affairs writes, "The focus is on people's needs. The rule of law and universal human rights – such as freedom of expression and information and the right to privacy – must also be guaranteed online. It is important to defend liberties such as press freedom." Furthermore, the Department seeks to "position Geneva as the location for global digitalisation and technology

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[4064] Schweizerische Eidgenossenschaft: Federal Office of Communications, Digital Switzerland, July 2020, https://www.bakom.admin.ch/bakom/en/homepage/digital-switzerland-and-internet/strategie-digitale-schweiz.html

[4065] Schweizerischer Eidgenossenschaft, Digital Switzerland Strategy, 2020, https://www.digitaldialog.swiss/en/

[4066] Schweizerischer Eidgenossenschaft: Federal Office of Communications OFCOM, Digital Switzerland, July 2020, https://www.bakom.admin.ch/bakom/en/homepage/digital-switzerland-and-internet/strategie-digitale-schweiz.html

[4067] Schweizerischer Eidgenossenschaft: Federal Office of Communications OFCOM, Digital Switzerland: Strategy, November 2018, https://www.bakom.admin.ch/bakom/en/homepage/digital-switzerland-and-internet/strategie-digitale-schweiz/strategy.html

[4068] Schweizerischer Eidgenossenschaft, Digital Switzerland» Strategy, September 2018, https://www.bakom.admin.ch/dam/bakom/en/dokumente/informationsgesellschaft/strategie/Strategie_DS_Digital_2-EN-barrierenfrei.pdf.download.pdf/Strategie_DS_Digital_2-EN-barrierenfrei.pdf

debate" and to promote sustainable development using digital technologies, digital self-determination and cyber diplomacy.[4069]

In 2018 an expert group on the future of data processing and data security published 51 recommendations for the federal government. The federal government and its ministries adopted 31 of them. These included:

- "The Confederation and the cantons adapt the powers and resources of the data protection authorities to enable them to perform their statutory tasks of sensitization, consultation and supervision comprehensively and effectively.
- "In cooperation with the cantons, the Confederation creates forms of cooperation between data protection supervisory authorities (e.g., competence center)."
- "In implementing the e-government strategy for Switzerland, the Confederation and the cantons will ensure that the "offline" population group is not socially excluded by digitization."
- "The Confederation, cantons and municipalities promote open and participatory systems and processes (…) in order to achieve social goals such as digital transformation, resilience and sustainability more quickly."
- "The Confederation and the cantons ensure that students at upper secondary schools and all students develop the basic skills and competencies necessary for handling and shaping digital technologies and transformation."
- "The Confederation and the cantons are committed to ensuring that the protection of fundamental values, human rights and human dignity is also secured in the digital age and that informational self-determination is promoted."
- "The Confederation will ensure sufficient transparency, traceability, comprehensibility and accountability of digital processes and algorithms to create a trust-based digital economy and society."

Many of these recommendations coincide with ongoing activities. For example, an association of the cantonal data protection authorities is in place, the federal government is working with the cantons and universities to integrate digital skills and knowledge into their respective curriculums and the revision of the Data Protection Act which was approved by the

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[4069]Schweizerische Eidgenossenschaft: Federal Department of Foreign Affairs FDFA, Foreign Policy Strategy 2020-2023, January 2020, https://www.eda.admin.ch/dam/eda/en/documents/publications/SchweizerischeAussenpol itik/Aussenpolitische-Strategie-2020-23_EN.pdf

Swiss parliament in 2020.[4070] If it is not challenged in a referendum then it is set to come into force in 2021.[4071] The revision improves transparency for citizens, gives the Swiss Federal Data Protection and Information Commissioner more competencies and resources and aligns Swiss data protection law with the European Data Protection Regulation.[4072]

Switzerland is a hub for international policy as many international organizations are based in Geneva. The United Nations hosted the first annual AI for Good Global Summit in 2017.

One of the thematic focus areas of the Swiss Foreign Policy Strategy 2020-2023 is "digitalization." The Federal Department of Foreign Affairs seeks to "position Geneva as the location for global digitalisation and technology debate" and to promote sustainable development using digital technologies, digital self-determination and cyber diplomacy."
Switzerland's ambition to strengthen international Geneva's role with regard to digital topics and AI is further demonstrated by the conference "AI and Trust" on overlaps between legislation, standardization and conformity assessment for AI co-organized by the Federal Department of Foreign Affairs in Geneva in May 2022[4073].

Public Participation

Switzerland is a direct democracy which means that citizens have the right to decide on policy directly, either by referendums or citizen-initiated referendums.[4074][4075] Further, policy revisions or proposals of

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[4070] Schweizerischer Eidgenossenschaft: Eidgenössisches Department für Umwelt, Verkehr, Energie und Kommunikation UVEK, Bericht zu den Empfehlungen der Experten- gruppe zur Zukunft der Datenbearbeitung und Datensicherheit: Kenntnisnahme und weiteres Vorgehen, October 2019,
https://www.bakom.admin.ch/dam/bakom/en/dokumente/informationsgesellschaft/datenpolitik/empfehlungen_experten_gruppe.pdf.download.pdf/Bericht%20zu%20den%20Emfehlungen%20der%20Expertengruppe.pdf
[4071] Swiss IT Magazine, Entwurf zur Totalrevision des Datenschutzgesetzes angenommen (Sept. 28, 2020),
https://www.itmagazine.ch/artikel/73072/Entwurf_zur_Totalrevision_des_Datenschutzgesetzes_angenommen.html
[4072] Schweizerischer Eidgenossenschaft: Eidgenössisches Justiz- und Polizeidepartment EJDP, Den Datenschutz verbessern und den Wirtschaftsstandort stärken (Sept. 2017), https://www.bj.admin.ch/ejpd/de/home/aktuell/news/2017/2017-09-150.html
[4073] https://www.aiwithtrust.org/
[4074] Schweizerischer Eidgenossenschaft: Bundeskanzlei, *Referenden*, https://www.bk.admin.ch/bk/de/home/politische-rechte/referenden.html
[4075] Schweizerischer Eidgenossenschaft: Bundeskanzlei, *Volksinitiativen*, https://www.bk.admin.ch/bk/de/home/politische-rechte/volksinitiativen.html

importance go through a consultation procedure with relevant stakeholders to include their opinions and needs and therefore to minimize the chance of a referendum.[4076]

Further specifically in technology policy, the website for the "Digital Switzerland" Strategy (www.digitaldialog.swiss) provides a summary of the Strategy and lists related initiatives and committees. Updates on how the Strategy is being implemented are also published on this website.[4077] Through the digital dialogue website, organisations, companies, municipalities and cantons can propose measures for a Digital Switzerland in the action plan. You can directly upload a proposal on this website and it will be reviewed in the context of the "Digital Switzerland" action plan.[4078]

In 2018, the Federal Council established the opendata.swiss website, "the Swiss public administration's central portal for open government data."[4079] The website, managed by the Federal Statistical Office, "supports organisations in publishing their open data" and "continuously monitors the quality of the catalogue."

Finally, the "Plateforme Tripartite Suisse" is an information hub and platform to exchange dialogue. It was founded in light of the "World Summit on the Information Society" in 2003 to prepare for this conference. It now "serves as a national forum for the informal exchange of information and experience on WSIS implementation and follow-up activities. It is open to all interested representatives from the administration, the business sector, civil society and the internet community at the national level and meets on an ad-hoc basis."[4080]

With the creation of a Competence Network for Artificial Intelligence (CNAI, https://cnai.swiss/) , the use of and confidence in AI and other mew technologies is expected to be fostered quickly and sustainably both with and beyond the Federal Administration. The CNAI also contributes to informing the public. Its project overview enables it to help ensure the transparency of ongoing AI projects both within and outside the Federal Administration. The CNAI serves as an enabler and facilitator.

[4076] Schweizerischer Eidgenossenschaft: Der Bundesrat: Das Portal der Schweizer Regierung, Vernehmlassungen (July 2019), https://www.admin.ch/gov/de/start/bundesrecht/vernehmlassungen.html
[4077] Digital Switzerland Strategy, https://www.digitaldialog.swiss/en/
[4078]Digital Switzerland Strategy, https://digitaldialog.typeform.com/to/ulwdzc
[4079] opendata.swiss, *Portal,* https://opendata.swiss/en/about/
[4080] Schweizerischer Eidgenossenschaft : Federal Office of Communications OFCOM, May 2007, https://www.bakom.admin.ch/bakom/en/homepage/ofcom/international-activities/un-world-summit-on-the-information-society/wsis.html

Mutual gives and takes is at the heart of the CNAI, which is why the competence network has two communities, the community of practice (CoP[4081]) and the community of expertise (CoE[4082]). The CoP is open to everyone. People interested in AI come together to learn from each other and exchange information, for example, about best practices in using AI or sharing concrete projects experiences. The CoP is an organized group of people who have a common interest in AI. It is open to anyone with an affinity for AI or who has expertise and interest in AI.

Data Protection

Art. 13 of the Federal Constitution states fundamentally that every person has the right to respect for his or her private and family life, his or her home, and his or her correspondence, post and telecommunications, and to protection against misuse of his or her personal data.[4083] In order to enshrine this protection in law, the Federal Law on Data Protection (FADP[4084]) was adopted and has been in force since July 1, 1993. The corresponding ordinance (VDSG[4085]) regulates the details. In addition, numerous provisions on the protection of personality also exist in other laws and areas. Articles 28-28l of the Civil Code (ZGB[4086]) specify how legal action is taken in the event of personality violations.

The Data Protection Act is currently being revised. The new Data Protection Act (nFADP) and the new Data Protection Ordinance (nDPA) as well as the new Ordinance on Data Protection Certifications (VDSZ) will enter into force on September 1, 2023. With the total revision, the DPA will be adapted to the changed technological and social conditions. In particular, the transparency of data processing will be improved and the self-determination of data subjects over their data will be strengthened. At the same time, the total revision should allow Switzerland to ratify the Council of Europe's revised data protection convention ETS 108 and to implement the Schengen-relevant Directive (EU) 2016/680 on data protection in criminal matters. In addition, the revision should bring Swiss data

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[4081] https://cnai.swiss/en/products/community-of-practice/.
[4082] https://cnai.swiss/en/products/community-of-expertise/.
[4083] Federal Constitution of the Swiss Confederation of 18 April 1999 https://www.fedlex.admin.ch/eli/cc/1999/404/en.
[4084] Federal Act on Data Protection (FADP) of 19 June 1992 https://www.fedlex.admin.ch/eli/cc/1993/1945_1945_1945/en.
[4085] Ordinance to the Federal Act on Data Protection (DPO) of 14 June 1993 https://www.fedlex.admin.ch/eli/cc/1993/1962_1962_1962/en.
[4086] Swiss Civil Code of 10 December 1907 https://www.fedlex.admin.ch/eli/cc/24/233_245_233/en.

protection legislation as a whole closer to the requirements of Regulation (EU) 2016/679.[4087]

AI oversight

The Federal Data Protection and Information Commissioner (FDPIC) is the "competent authority for data processing by federal bodies and private persons, including enterprises." Furthermore, data processing by cantonal or communal authorities is supervised by cantonal and communal data protection commissioners.[4088] The revision of Swiss Data Protection Act ascribed more competencies and resources to the FDPIC which should allow for more comprehensive oversight over the regulation of the data protection laws. The revision improves transparency for citizens, gives the Swiss Federal Data Protection and Information Commissioner more competencies and resources and aligns Swiss data protection law with the European Data Protection Regulation.[4089]

Further, in 2019 the Federal Council approved the proposal to establish a national human rights institution (NHRI). The NHRI is the result of a pilot project called the Swiss Centre of Expertise in Human Rights (SCHR). According to the Federal Council "The NHRI will be independent, include members from across society and receive an annual financial support from the Confederation."[4090]

In 2021 the SCHR presented a report on digitalization and privacy at the workplace discussing a range of topics including AI.[4091] On the cantonal level, Zurich was the first canton to establish a regulatory sandbox for AI in 2022, aiming to foster responsible innovation by having the administration and participating organizations work closely on regulatory issues.[4092]

[4087] https://www.bj.admin.ch/bj/de/home/staat/gesetzgebung/datenschutzstaerkung.html.

[4088] Schweizerischer Eidgenossenschaft: Federal Data Protection and Information Commissioner, Data Protection – Switzerland, https://www.edoeb.admin.ch/edoeb/en/home/the-fdpic/links/data-protection---switzerland.html

[4089] Schweizerischer Eidgenossenschaft: Eidgenössisches Justiz- und Polizeidepartment EJDP, *Den Datenschutz verbessern und den Wirtschaftsstandort stärken* (Sept. 2017), https://www.bj.admin.ch/ejpd/de/home/aktuell/news/2017/2017-09-150.html

[4090] The Federal Council, National human rights institution to be established in Switzerland (Dec. 13, 2019), https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-77508.html

[4091] https://www.skmr.ch/cms/upload/pdf/2021/211006_ZF_Digitalisierung_Privatsphaere_Arbeitsverhaeltnis.pdf

[4092] https://www.zh.ch/de/wirtschaft-arbeit/wirtschaftsstandort/innovation-sandbox.html

Algorithmic Transparency

Switzerland is outside the European Union and is therefore not directly subject to the GDPR. The Federal Act on Data Protection (FADP) was revised as of September 2020 to comply with the modernized Council of Europe Convention 108. [4093] Switzerland ratified the Council of Europe Convention in 2019.[4094] Article 9(1)(c) of the Convention gives every individual the right "to obtain, on request, knowledge of the reasoning underlying data processing where the results of such processing are applied to him or her."[4095] The Swiss Data Protection Act establishes a Data Protection and Information Commissioner (FDPIC) with independent supervisory authorities. The Act creates obligations to undertake privacy impact assessments in certain circumstances. A key amendment increased transparency in data processing.[4096]

Article 21 of the new FADP introduces the "Duty to inform in the case of an automated individual decision."[4097] This introduces the general concept of automated individual decisions in Swiss law.

The FADP states that: (1) "The person responsible shall inform the person concerned of a decision that is based exclusively on automated processing that is associated with a legal consequence for them or significantly affects them (automated individual decision) and (2) "On request, it shall give the data subject the opportunity to state his or her position. The data subject may request that the automated individual decision be reviewed by a natural person."

Finally, there is a specific labeling requirement for an automated individual decision if it is issued by a federal body: 21(4) If the automated individual decision is issued by a federal body, it must label the decision accordingly. This particular requirement shows that higher demands are

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[4093] Linklaters, *Data Protected – Switzerland* (Oct. 2020), https://www.linklaters.com/en-us/insights/data-protected/data-protected---switzerland

[4094] Council of Europe, https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/223/signatures

[4095] Council of Europe, *128th Session of the Committee of Ministers* (May 17-18, 2018), https://search.coe.int/cm/Pages/result_details.aspx?ObjectId=09000016807c65bf

[4096] Lexology, *Revision of Swiss data protection act adopted* (Sept. 25, 2020), https://www.lexology.com/library/detail.aspx?g=ebc8ce19-0fee-457d-a94f-a0625e4805b8

[4097] Swiss Parliament, *Vorlage der Redaktionskommission für die Schlussabstimmung, Bundesgesetz über den Datenschutz (DSG)* (Sept. 25, 2020) ("Presentation by the editorial board for the final vote on the Data Protection Act") [DT]ra, https://www.parlament.ch/centers/eparl/curia/2017/20170059/Schluzssabstimmungstext%203%20NS%20D.pdf

placed on government action in general, and in particular with regard to transparency.

Furthermore, the calls for transparency in civil society as well as at the political level are becoming louder and louder. Civil society organizations are calling for an ADM register for public administration.[4098] These demands have been taken up at the federal level[4099] as well as at the cantonal level[4100]. Developments in the canton of Zurich are the most advanced: As part of the revision of the Information and Data Protection Act, the government council of the canton of Zurich is proposing to establish a registry for automated decision-making systems (ADM systems).[4101] Both parliamentary motions do not deal with all algorithmic systems, but with those that appear to be particularly problematic from the point of view of the comprehensibility of the decision-making process.

Further, article 25(g) establishes a data subject's right to algorithmic transparency in the case of an automated individual decision: "In any case, the following information will be communicated to the data subject: g. if applicable, the existence of an automated individual decision and the logic on which the decision is based."

AI and Criminal Justice

According to AlgorithmWatch, the Swiss government is using AI in the penal system. The application helps to triage inmates, which is the first of several steps to develop the inmate's release plan. Further, the Federal government uses a system for automatic vehicle detection and traffic monitoring at state borders. Finally, the Federal Customs Administration uses a different system, like a data processing system, to help assess goods coming into the country. Some cantons use a police software to predict domestic burglaries. According to AlgorithmWatch, "it should be noted that

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[4098] AlgorithmWatch Sitzerland, read https://algorithmwatch.ch/en/adm-publicsector-recommendation/ and the Digital Society, read https://www.digitale-gesellschaft.ch/2021/12/08/rechtsrahmen-fuer-kuenstliche-intelligenz-in-der-schweiz-positionspapier-digital-society-initiative-dsi/.

[4099] Motion 21.4508 Schlatter Marionna, december 16 2021, concerning a public register of algorithms used in the administration, read https://www.parlament.ch/de/ratsbetrieb/suche-curia-vista/geschaeft?AffairId=20214508.

[4100] Postulate 9/2022 Yuste Nicola/Moser Arianne/Mäder Gabriel/Wilma Willi/Erika Zahler of January 17, 2022 concerning transparency on the use of artificial intelligence in the administration, approved by the Cantonal Council and referred to the Government Council on April 25, 2022.

[4101] Read https://algorithmwatch.ch/de/adm-register-kt-zh/.

the use of predictive policing in Switzerland is currently limited to a relatively small and clearly defined area of preventive police work."[4102]

Facial recognition

Machine facial recognition is hardly outlined in Switzerland in regulatory terms. The police occasionally use facial recognition to compare mug shots, whereby a cantonal police database of known criminals is compared with another, e.g., a cross-cantonal database. The mugshots often come from surveillance cameras of injured parties, such as a clothing store that has been robbed. The concrete identification of the suspected person is still the responsibility of a police officer and not of a software.[4103]

Civil society organizations are campaigning hard for a ban on facial recognition in public spaces. An alliance of Amnesty International, AlgorithmWatch CH and the Digital Society is calling for a ban on automatic facial recognition and biometric mass surveillance in Switzerland.[4104] Together, the organizations launched a petition for such a ban.[4105] The petition was signed by more than 10,000 people and has also led to effects at the political level.[4106]

Currently, especially in eastern Switzerland, in the city of St. Gallen, the topic of facial recognition is being discussed in parliament. As the first city in Switzerland, the St. Gallen parliament wants to ban automatic facial recognition in public spaces.[4107] However, political initiatives have also been submitted in the cities of Basel[4108], Zurich[4109] and Lausanne[4110] and are currently being examined by the respective cantonal executive.

[4102] AlgorithmWatch, *Automating Society 2020*, (Oct. 2020), https://automatingsociety.algorithmwatch.org/report2020/switzerland/)

[4103] SIMMLER MONIKA/CANOVA GIULIA, Gesichtserkennungstechnologie: Die «smarte» Polizeiarbeit auf dem rechtlichen Prüfstand, Sicherheit&Recht, 3/2021, pp. 105-117; BRAUN BINDER NADJA/KUNZ ELIANE/OBRECHT LILIANE, Maschinelle Gesichtserkennung im öffentlichen Raum, sui generis 2022, pp. 54-61, open access https://sui-generis.ch/204 .

[4104] https://www.amnesty.ch/de/themen/ueberwachung/gesichtserkennung#.

[4105] https://algorithmwatch.ch/de/gesichterkennung-stoppen/.

[4106] https://algorithmwatch.ch/de/gesichterkennung-erfolge/.

[4107] https://www.stadt.sg.ch/home/verwaltung-politik/demokratie-politik/stadtparlament/geschaefte.geschaeftDetail.html?geschaeftGUID=233e32ab77714146b31d608b80dc4755.

[4108] https://www.grosserat.bs.ch/ratsbetrieb/geschaefte/200111546.

[4109] https://www.gemeinderat-zuerich.ch/geschaefte/detailansicht-geschaeft?gId=99d77a00-a8dd-4cfc-b207-618a3dadf947

[4110] https://www.lausanne.ch/apps/agir/affaire/87/6f3999044b004229aab557844e5d1a87.htm.

OECD / G20 AI Principles

Switzerland endorsed the G20 AI Principles. Regarding implementation of the AI Principles, the OECD notes Switzerland's active involvement in relevant international organisations and processes.

"Particularly important for Switzerland is to ensure that fundamental and established values and norms such as human rights are respected and that all relevant stakeholders are involved in decision-making."[4111]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Switzerland is a member of UNESCO and as such supported the adoption of the UNESCO Recommendation of the Ethics of AI. In his speech before the 41st session of the General Conference of UNESCO in November 2021, Federal Councillor Ignazio Cassis emphasized "Switzerland's unwavering commitment to encouraging respect for fundamental rights" and its "support for the recommendation on the ethics of artificial intelligence."[4112]

Human Rights

Switzerland is a signatory to many international human rights treaties and conventions. Switzerland typically ranks among the top nations in the world for the protection of human rights and transparency.[4113] In 2021, Freedom House gave Switzerland the score of 96/100, unchanged from 2021, and noted that "the government is generally transparent in its operations. In recent years, an increasing number of cantonal governments have passed transparency laws that make government data more accessible to citizens." Guaranteeing human rights is also one of Switzerland's key goals for the Council of Europe's upcoming AI framework[4114].

Evaluation

Switzerland has newly established a national set of guidelines on ethics that are aimed at the public administration. Further, across most reports and initiatives, ethics have been considered, integrated and implemented in the governments work on AI policy. So far, it appears that

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[4111] G20 Digital Economy Task Force, *Examples of National AI Policies* (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf.
[4112] https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-85852.html).
[4113] Freedom House, *Freedom in the World 2021: Switzerland* (2021), https://freedomhouse.org/country/switzerland/freedom-world/2021
[4114]https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-90367.html

Switzerland does not want to enact a specific AI-Act, but rather wants to address the new technology on a sector-specific basis. In recent years, initiatives on the federal as well as the cantonal level demonstrate, that the topic of AI policy is picking up speed in Switzerland. With the Federal Department of foreign Affairs' 2022 report and Switzerland's contribution to the Council of Europe's upcoming AI framework, the country's ambitions for AI policy have become clearer, attesting to its commitment to technological development that is compatible with human rights. However, there is no clear regulatory strategy for the private sector.

Taiwan

National AI Strategy

      "Beyond sparking a scientific and technological revolution, artificial intelligence (AI) will fundamentally transform human life and industry and create boundless business opportunities." This sentence officially introduces the 2018 Taiwan Government's four-year AI Action Plan[4115] which aims to propel Taiwan "into the ranks of the world's leading smart nations." "Guided by the principles of deregulation, open access and technology investment," the AI Action Plan is designed to "sharpen Taiwan's advantages, prioritize innovation and real-world implementation, and develop software and hardware in tandem, thereby injecting greater momentum into Taiwan's industries."

      To this end, the Action Plan focuses on five action areas: i) developing AI talent; ii) promoting Taiwan's lead role in AI by expanding its world-leading position in the semiconductor chip industry; iii) building Taiwan into an AI innovation; iv) liberalizing laws and opening test grounds to ease restrictions on innovative technologies; and v) Transforming industry with AI.

      The AI Action Plan follows on the five-year AI strategy developed by the Ministry of Science and Technology (MOST)[4116] to "cultivate AI technology specialists and create an environment for AI scientific research." This "Grand Strategy for a Small Country[4117]" builds on Taiwan's "strengths and potential advantages, such as semiconductors and information and communications technology."

      The AI Strategy aims to "develop select fields for the future, including the internet of things, security solutions and driverless vehicles" and has five "key facets": i) R&D services with the creation of an AI cloud service and high-speed computing platform; ii) Value-added innovation with the establishment of four AI innovation research centers;

[4115] Government of Taiwan, Executive Yuan, *AI Taiwan Action Plan* (Aug. 7, 2019), https://english.ey.gov.tw/News3/9E5540D592A5FECD/1dec0902-e02a-49c6-870d-e77208481667. The Executive Yuan is an executive branch of the Taiwan Government. It is a Council headed by the premier which includes the vice-premier, ministers, chairpersons of commissions, and ministers without portfolio. See also: Government of Taiwan, *AI Taiwan,* https://ai.taiwan.gov.tw/#actionplan
[4116] The Ministry of Science and Technology (MOST) is one of the ministries under the Executive Yuan in Taiwan and is responsible for the scientific and technological innovation of Taiwan.
[4117] Executive Yuan, R. O. C. (Taiwan). AI innovation: Grand strategy for a small country (-Major Policies Detail) https://english.ey.gov.tw/News3/9E5540D592A5FECD/edadb735-e6a6-43e1-ac93-1959602bb3ec

iii) Creativity and practice with an AI Robot Makerspace; iv) Industrial pilot program with an AI semiconductor "moonshot" project; and v) Social participation with three "Formosa Grand Challenge" technology competitions to uncover talent, develop technology and stimulate creativity. Ethical questions are also targeted in Taiwan – as one of the many aspects related to AI.[4118]

AI Core Values

MOST announced in September 2019 the AI Technology R&D Guidelines "in a bid to create a reliable environment conforming to international trends of AI R&D and to provide directions for Taiwan AI researchers to follow."[4119] When presenting the Guidelines, Science, and Technology Minister Chen Liang-gee said that his ministry "has the responsibility of helping humans be able to trust" AI[4120] and that "those who provide digital tools must be ethical."[4121] He also explained that the whole world is still watching the evolution of artificial intelligence and that it is right now "more appropriate to adopt guidelines than sanctions."

The AI R&D Guidelines are based on three core values[4122]:

(1) Human-centered (the human being should be at the heart of research, an AI-based society should respect human dignity, rights and freedom, and application of AI is to prompt human welfare and hike human living standards);

(2) Sustainable development (AI R&D should seek balance among economic growth, social progress and environmental protection to reach co-existence and common prosperity among human being, society and environment);

(3) Diversity and inclusion (AI R&D is to create an AI-based human society of diverse value concepts and backgrounds via interdisciplinary dialog mechanisms).

[4118] Netherland Innovation Network, *Artificial Intelligence; an overview of policies and developments in* Taiwan (Mar. 2020), https://www.rvo.nl/sites/default/files/2020/04/AI-Developments-in-Taiwan.pdf

[4119] Bryan Chuang, Adam Hwang*, MOST announces AI R&D guidelines,* DigiTIMES (Sept. 24, 2019), https://www.digitimes.com/news/a20190923PD209.html

[4120] Shirley Lin, *Taiwan first in world to set R&D guidelines for AI, Radio Taiwan International* (Sept. 23, 2019), https://en.rti.org.tw/news/view/id/2001895

[4121] Radio Taiwan International, *The French Ministry of Science defines a research framework for artificial intelligence* (Sept. 23, 2019) (original in French), https://fr.rti.org.tw/news/view/id/90832

[4122] Bryan Chuang, Adam Hwang*, MOST announces AI R&D guidelines,* DigiTIMES (Sept. 24, 2019), https://www.digitimes.com/news/a20190923PD209.html

AI R&D Guidelines

"AI research and development must be people-oriented," the Minister said, asking that research teams retain the source codes and AI training materials so that the work can be traced. The complexity of AI means that it is vulnerable to misuse, which countries are seeking to mitigate by establishing standards for its development, he said. In particular, because AI technology systems learn from data, they can perpetuate and amplify human biases, he said.[4123] "After an artificial intelligence program is written, it evolves based on the data provided to it. If the data is discriminatory, the program will be discriminatory. If the data is deviant, it will be deviant."

More precisely, eight guidelines derive from Taiwan's AI core values, including i) Common good and well-being; ii) Fairness and non-discrimination; iii) Autonom*y* and control; iv) Safety; v) Privacy and data governance; vi) Transparency and traceability; vii) Explainability; and viii) Accountability and communication.[4124]

The official press release points to the fact that the core of AI technology is its people-oriented nature, so researchers must safeguard human rights and preserve human dignity and that the guidelines' eight criteria emphasize promoting shared benefits and common well-being, with researchers who should aim to develop systems that are free of discrimination. Likewise, AI tools should support human policies, and people using the tool.[4125]

"Human-centered AI" for Taiwan AI start-up iKala means the involvement of people in AI development and applications, as well as the creation of ethical, humane AI. As an illustration, iKala Co-founder and CEO Cheng cites the example of an innovative picture-as-a-service (PicaaS) technology which automatically edits product pictures to allow companies to circulate clean photos of their products. However, following complaints that it could potentially be used to infringe on image owners' intellectual property rights, Cheng and his team re-trained the software to recognize and reject copyrighted images. "That's the kind of responsible AI

[4123] Radio Taiwan International, *The French Ministry of Science defines a research framework for artificial intelligence* (Sept. 23, 2019) (original in French), https://fr.rti.org.tw/news/view/id/90832

[4124] Bryan Chuang, Adam Hwang*, MOST announces AI R&D guidelines,* DigiTIMES (Sept. 24, 2019), https://www.digitimes.com/news/a20190923PD209.html

[4125] Overseas Community Affairs Council, *AI Taiwan: Ministry releases guidelines for AI research* (Sept. 24, 2019), https://ai.taiwan.gov.tw/news/ministry-releases-guidelines-for-ai-research/

we want to be working on," says Cheng. "Putting humans in the equation – not just stealing and not just replacing people."[4126]

Digi+

Taiwan's AI Action Plan's was developed in coherence with the 2017, broader, "DIGI+: Digital Nation and Innovative Economic Development Program." DIGI is an acronym reflecting Taiwan's commitment to development, innovation, governance, and inclusion, with the "+" reflecting the government's intention to apply the strategy toward promoting innovation at every level of society and the economy.[4127]

The DIGI+ Program highlights are:

- "Enhance soft infrastructure to create an environment conducive to digital innovation: DIGI+ calls for the construction of an innovation-friendly legal framework and the cultivation of interdisciplinary technical talent, matched to the research and development of advanced digital technologies.
- Promote development of the digital economy
- Create a service-oriented digital government and promote open governance: This includes the development of an open application programming interface (Open API) for government data, and the establishment of demand-oriented, one-stop smart government cloud services.
- Develop a vibrant online society with equality of access: The DIGI+ program aims to ensure broadband internet access for the disadvantaged, implement participatory democracy, promote digital infrastructure in remote regions and outlying islands, build a comprehensive legal foundation for digital human rights, and provide citizens with equal opportunities for digital development.
- Build sustainable, smart cities and townships"[4128]

In August 2022, Taiwan inaugurated its new Ministry of Digital Affairs (MoDA). According to the new Minister, Audrey Tang, MoDA "is aimed to build digital resilience for all, connect the digital technologies with civil affairs, strengthen industrial competitiveness and cybersecurity

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[4126] Jeremy Olivier, *Taiwan Tests the Limits with Artificial Intelligence,* Taiwan Business (May 15, 2020), https://topics.amcham.com.tw/2020/05/taiwan-tests-limits-ai/

[4127] Government of Taiwan, *DIGI+: Digital Nation and Innovative Economic Development Program,* Executive Yuan (2017), https://english.ey.gov.tw/News3/9E5540D592A5FECD/659df63b-dad4-47e3-80ab-c62cb40a62cd

[4128] Government of Taiwan, *DIGI+: Digital Nation and Innovative Economic Development Program* (2017), https://english.ey.gov.tw/News3/9E5540D592A5FECD/659df63b-dad4-47e3-80ab-c62cb40a62cd

practices, accelerate social digital development and realize the vision of a smart country."[4129]

Public participation and Use of AI for Public Participation

One of the key goals of DIGI+ is to further participatory democracy.[4130] The 2021Taiwan Open Government National Action Plan goes goes in the same direction and aims at "deepening democratic values and strengthening international ties," applying technology toward furthering government transparency and increasing public participation in government policies.[4131]

For the last few years, Taiwan has organized public debates via the citizen-run vTaiwan platform.[4132] vTaiwan's (for Virtual Taiwan) algorithms highlight where there is consensus in a debate while minimizing the voices at the most extreme ends.[4133] This system is officially and routinely part of the law-making process of Taiwanese institutions, involving thousands of citizens in varying degrees.[4134] The outcomes of vTaiwan have been put in front of Parliament, by government, to form the core of 11 pieces of laws and regulation, with eight more waiting to go on everything from revenge porn to fintech regulation.

The vTaiwan process is giving weight to the citizen voice and has led to regulatory innovations at four stages: (1) informing the public; (2) collecting the strategic approaches through Pol.is,[4135] an open-

[4129] Ministry of Digital Affairs, *Taiwan inaugurates Ministry of Digital Affairs, strives to 'Free the Future'* (Aug. 27, 2022), https://moda.gov.tw/en/press/press-releases/1986

[4130] Government of Taiwan, DIGI+: Digital Nation and Innovative Economic Development Program (Aug. 7, 2019), https://english.ey.gov.tw/News3/9E5540D592A5FECD/659df63b-dad4-47e3-80ab-c62cb40a62cd

[4131] Government of Taiwan, National Development Council, *Taiwan Open Government National Action Plan* (2021-2024), https://ws.ndc.gov.tw/Download.ashx?u=LzAwMS9hZG1pbmlzdHJhdG9yLzExL3JlbGGZpbGUvMC8xMzY5My84YzRmMWVmNi01NTk0LTQyMTYtYjFkNS04MjE1YzEzY2JmODIucGRm&n=MTI4YTJkNDctZWJkYi00OGZhLTkyODAtMzY5YjQ4NmZiOTM2LnBkZg%3d%3d&icon=..pdf

[4132] vTaiwan, *About,* https://info.vtaiwan.tw/

[4133] Walter Kerr, *Taiwan Is Beating Political Disinformation. The West Can Too,* Foreign Policy (Nov. 11, 2020), https://foreignpolicy.com/2020/11/11/political-disinformation-taiwan-success/

[4134] Bluenove, *vTaiwan : making citizens the key to public debate* (May 28, 2018), https://bluenove.com/en/blog/vtaiwan-making-citizens-the-key-to-public-debate/

[4135] The Computational Democracy Project, *Designing Future Democracies*, https://github.com/pol-is/polis-documentation/blob/master/README.md

source self-learning algorithm; (3) deliberating; and (4) observing decision-making.[4136]

"When people started using Polis, we found that it became a consensus-generating mechanism," Megill said to Wired.[4137] To bring the groups closer together, Polis has reengineered many of the features we take for granted on social media. No reply button – hence no trolling. No echo-chambers, replaced by an attitudes map showing you where you are in relation to everyone else. The statements that get attention are those that find support not only in one cluster, but across other groups, too.

However, in a joint statement regarding the establishment of the new Ministry of Digital Affairs (MoDA), leaders from Taiwan's human rights and technology sectors emphasized that the establishment of the MoDA itself shows the progress that still needs to be made with regard to public participation. "There has been a notable lack of transparency surrounding the establishment of MoDA. Although the mist is slowly starting to fade in the weeks before its launch, information surrounding the operation, organization, and structure of MoDA was notably slow to appear. News of MoDA's establishment first emerged two years ago, and yet still little is known (…) no official explanation exists. With information only appearing at the 11th hour before MoDA's launch, it has been hard for civil society groups to monitor and give feedback on its establishment. The fact that the joint statement was published only about a month before MoDA is to be established reflects the lack of opportunities for dialogue and feedback. There is no quick fix to promoting procedural transparency and cooperation, but it is essential to ensure great public participation. Indeed, international success stories of rules-based, transparent digital governance should provide one key lesson for MoDA: instituting strong digital governance is slow and difficult. This is a lesson that Taiwan's government has thus far been unreceptive to learning."[4138]

[4136] Bluenove, *vTaiwan : making citizens the key to public debate* (May 28, 2018), https://bluenove.com/en/blog/vtaiwan-making-citizens-the-key-to-public-debate/
[4137] Wired, *Taiwan is making democracy work again. It's time we paid attention* (Nov. 26, 2019), https://www.wired.co.uk/article/taiwan-democracy-social-media
[4138] Sam Robbins and Chia-Shuo Tang, *Hopes and Concerns for Taiwan's New Ministry of Digital Affairs*, The Diplomat (Aug. 22, 2022), https://thediplomat.com/2022/08/hopes-and-concerns-for-taiwans-new-ministry-of-digital-affairs/; For the joint statement (in original language only): https://ocf.tw/p/issues/2022/

Data Protection

Article 22 of the Taiwanese Constitution protects individuals' information privacy rights.

Personal data protection in Taiwan is essentially subject to the 2015 Personal Information Protection Act (PDPA) which applies to the public and the private sectors.[4139] It is supplemented by the 2016 Enforcement Rules of the Personal Data Protection Act.[4140] Local and national government authorities enforce this Act.

The Taiwan Government considers amending the PDPA to meet GDPR standards to obtain an adequacy decision from the EU[4141] and held several public hearings in 2019 to solicit public comments. Among the various topics discussed during the public hearings, the government was contemplating the adoption of data breach notification obligations and cross-border data transfer restrictions similar to those under the GDPR. Taiwan continues to dialogue with the EU in this regard.

According to the National Development Council's website, "The Personal Data Protection Office under the National Development Council was established on July 4, 2018 in response to the implementation of the GDPR and to ensure a coherent enforcement of the PDPA. On July 25, 2018, the National Development Council replaced the Ministry of Justice to become the governing authority of the PDPA, so that all matters relating to the PDPA may be handled and coordinated by the Council in a coherent matter."

In July 2020, Taiwan's Digital Minister said that she supported the idea of establishing a dedicated agency for personal data protection before the electronic identification cards (eID) are rolled out next year.[4142] However, as of March 2023, this does not seem to have happened.

In August 2022, in a landmark case concerning the secondary use of the National Health Insurance Research Database, the Taiwanese

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[4139] Taiwan, *Personal Data Protection Act* (Dec. 30, 2016), https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=I0050021#:~:text=The%20Personal%20Data%20Protection%20Act,proper%20use%20of%20personal%20data.&text=%22data%20subject%22%20refers%20to%20an,is%20collected%2C%20processed%20or%20used

[4140] Taiwan, *Enforcement Rules of the Personal Data Protection Act* (March 2, 2016), https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=I0050022

[4141] National Development Council, *Personal Data Protection Office*, https://www.ndc.gov.tw/en/Content_List.aspx?n=F01BA39CDAD39B01

[4142] Huang Tzu-ti, *Taiwan's digital minister says personal data protection agency needed for digital ID: Measure to introduce eID has been met with fierce opposition from academics, experts,* Taiwan News (July 30, 2020), https://www.taiwannews.com.tw/en/news/3976854

constitutional court ruled that since the PDPA and other related laws in Taiwan lack an independence surpervision mechanism for personal data protection, such protection is inadequate and potentitally unconstitutional. The Court gave three years for an appropriate legal regime to be set.[4143] In February 2023, the Executive Yuan confirmed that the government will create, no later than August 2024, an independent data protection commission.[4144]

In November 2022, the MoDA announced the issuance of the draft Regulations Governing the Personal Data Files Security Maintenance Plan and Disposal Methods for Digital Economy Related Industries. The Regulations will require for some industries to establish a personal data protection policy and a personal data files security maintenance plan.[4145]

Algorithmic Transparency

The PDPA regulates "the collection, processing and use of personal data so as to prevent harm on personality rights, and to facilitate the proper use of personal data."[4146] The PDPA covers "data retrieval and management by automated and non-automated means. However, the PDPA does not provide for algorithmic transparency.*[4147]*

However, the 2019 AI Technology R&D Guidelines identify "transparency and traceability," as well as "explainability" as "core AI values."

[4143] Hannah Kuo, Jaime Cheng and Aaron Chen, *The Secondary Use of the National Health Insurance Database Found Partially Unconstitutional in Taiwan Constitutional Court Decision* (Oct. 2022), https://www.leetsai.com/ltp-special-column/the-secondary-use-of-the-national-health-insurance-database-found-partially-unconstitutional-in-taiwan-constitutional-court-decision; Wu Cheng-feng and William Hetherington, *Health data access partly unconstitutional: court* (Aug. 13, 2022), https://www.taipeitimes.com/News/taiwan/archives/2022/08/13/2003783452

[4144] Arthur Shay, *Taiwan to launch data protection commission* (Feb. 24, 2023), https://www.lexology.com/commentary/tech-data-telecoms-media/taiwan/shay-partners/taiwan-to-launch-data-protection-commission

[4145] Lee and Li, *MODA announced the draft Regulations Governing the Personal Data Files Security Maintenance Plan for Digital Economy Related Industries* (Nov. 21, 2022), https://www.lexology.com/library/detail.aspx?g=8126dd21-550b-4dfc-a7be-45223feefdb0; see also Ministry of Digital Affairs, *Regulations Governing Personal Data File Security Maintenance Plans and Processing Methods After Termination of Business for Online Retail Industry and Online Retailing Service Platform* (Dec. 12, 2021), https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=J0080052

[4146] Laws and Regulations Database of the Republic of China, *Personal Data Protection Act,* https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=I0050021

[4147] Laws and Regulations Database of the Republic of China, *Personal Data Protection Act,* Article 2.a., https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=I0050021

Medical Data and AI Ethics

Two research projects on AI Ethics in the medical and biomedical areas are ongoing. One examines the Ethical, Legal, and Societal Issues Surrounding Artificial Intelligence-Assisted Medical Care (ELSI-AIM)[4148] and is in its second year. Another one (NCKU AI Biomedical Research Center on AI Ethics) focuses on AI for biomedical research with a multi-disciplinary team of clinicians, biomedical, AI experts, legal and ethical advisors. [4149]The Taiwan Biobank created in 2012 is a repository of tissues/information but is not allowed to directly carry out research. Information on the participants, all voluntary, whose samples are included in the biobank will link several sources of data: national identification number, National Health Insurance system, cancer registry, and cause of death registry.[4150] Its operations are regulated by detailed legislation.

Current discussions focus on how the Taiwan Biobank can be transformed by leveraging digital technologies. For some, greater participant engagement and the uptake of Information Technology and AI applications can be used in partnership with vertical and horizontal integration as part of a four-pronged approach to promote biobank sustainability, and facilitate the biobank's transformation.[4151] Others seem more cautious,[4152] pointing to key issues raised by the current ethical

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[4148] Joint Research Center for AI Technology and All Vista Healthcare sponsored by: Ministry of Science and Technology -
http://mahc.ntu.edu.tw/en/research_view.php?id=13
This project includes four subprojects: (1) The deliberation of ethical issues on artificial intelligence-assisted medicine; (2) legal and policy implications of artificial intelligence in medicine; (3) the implications of societal issues on artificial intelligence-assisted end-of-life physician-patient communication: opportunities and challenges; and (4) artificial intelligence-based medicine assisted system from analytical design to practical application.
[4149] NCKU - MoST AI Biomedical Research Center The MoST AI Biomedical Research Center is located at the National Cheng Kung University (NCKU). The research center focuses on AI for biomedical research. Currently there are fourteen projects ongoing with a focus in four areas: smart medicine, smart healthcare, smart biotechnology and ethics and humanities.
[4150] Michael Cheng-tek, *Taiwanese Experience of Data-Sharing in Biobanking* (PPT slides).
[4151] Jui-Chu Lin, Wesley Wei-Wen Hsiao and Chien-Te Fan, *Transformation of the Taiwan Biobank 3.0: vertical and horizontal integration*, Journal of Translational Medicine, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7406956/
[4152] Shawn H.E. Harmon, Shang-Yung Yen and Shu-Mei Tang, *Biobank Governance: The Cautionary Tale of Taiwan Biobank*, Journal of Law, Technology and Society (Aug. 2018), https://script-ed.org/article/biobank-governance-the-cautionary-tale-of-taiwan-biobank/

governance[4153] of the Taiwan Biobank, namely i) the handling of ethnicity, including the special requirements that it imposes with respect to obtaining participant consent, and ii) transparency (and accountability) around the undertaking's governance.

COVID-19 and Big Data Analytics

In January 2020, Taiwan integrated its national health insurance database with its immigration and customs database to begin the creation of big data for analytics and allow case identification by generating real-time alerts during a clinical visit based on travel history and clinical symptoms.[4154]

"The combination of these two sets of data allows us to generate alerts to tell healthcare staff when a patient returns from a risk area," said Yu-Lun Liu, doctor in the intelligence department of the Taiwan Center for disease control (CDC). The identified patients are then treated through a separate circuit, limiting contact with other patients.[4155] To strengthen this new data set, the authorities are "working with telephone providers, on the basis of roaming data, to identify people whose last stopover is not necessarily an area at risk, but who have made trips with stops in areas affected by the epidemic." "The authorities are developing a model for processing public video surveillance images to estimate the proportion of masked people. "This artificial intelligence-based model has allowed us to see a rapid increase in the number of people wearing masks. We have chosen to stop their export and increase local production," recalls Yu-Lun Liu."

In March 2020, the BBC reported that when the phone belonging to an American University student in Taiwan, who was subject to 14 days' quarantine after returning from Europe, ran out of battery power, in less than an hour he had received phone calls from four different local

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[4153] Taiwan Biobank established an Ethics and Governance Council (EGC) to act as an independent guardian of Taiwan Biobank's Ethics and Governance Framework, and to advise the Competent Authority (the MOHW) on its revision from time to time. Cited above: https://script-ed.org/article/biobank-governance-the-cautionary-tale-of-taiwan-biobank/

[4154] Beth Duff-Brown, *How Taiwan Used Big Data, Transparency and a Central Command to Protect Its People from Coronavirus* (March 3, 2020), https://fsi.stanford.edu/news/how-taiwan-used-big-data-transparency-central-command-protect-its-people-coronavirus

[4155] L'Usine Digital, *Covid-19 : comment Taïwan s'est appuyé sur la technologie pour contenir l'épidémie* (March 20, 2020), https://www.usine-digitale.fr/article/covid-19-comment-taiwan-s-est-appuye-sur-la-technologie-pour-contenir-l-epidemie.N943431

administrative units, a text message notifying him he would be arrested if he had broken quarantine, and a visit from two police officers. The phone tracking system uses phone signals to triangulate locations of the more than 6,000 people subject to home quarantine; an alert is sent to the authorities if the phone is turned off for more than 15 minutes.[4156]

Autonomous Vehicles

In November 2018, the Legislative Yuan passed the Act for Unmanned Vehicle Technology Innovative Experiments, which was enacted by the President in December 2018. Entered into force in May 2019, the Act frees autonomous vehicles and drones from limits by some traffic regulations in their test runs.[4157] Moreover, the regulations specifically call for AI-boosted algorithmic unmanned platforms.[4158] Taiwan CAR (Connected, Autonomous, Road-test) Lab,[4159] the nation's first closed field for testing self-driving cars, also opened for use in 2019.

Facial Recognition

Facial recognition has been implemented in Taiwan across various sectors, including banks,[4160] retail stores,[4161] airports,[4162] and law enforcement.[4163] In June 2019, the Taiwan Railways Administration announced that, due to privacy concerns, its surveillance system trial would

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[4156] BBC, *Coronavirus: Under surveillance and confined at home in Taiwan* (March 24, 2020), https://www.bbc.co.uk/news/technology-52017993

[4157] GNSS Asia, *Taiwan's Executive Yuan Approves Bill Promoting Unmanned Vehicle Experimentation* (May 24, 2019), https://gnss.asia/new/taiwans-executive-yuan-approves-bill-promoting-unmanned-vehicle-experimentation/

[4158] Yisuo Tzeng, *Prospect for Artificial Intelligence in Taiwan's Defense,* Jewish Policy Center (Winter 2019), https://www.jewishpolicycenter.org/2019/01/11/prospect-for-artificial-intelligence-in-taiwans-defense/

[4159] Taiwan Car Lab, http://taiwancarlab.narlabs.org.tw/index_en.html#:~:text=The%20Taiwan%20CAR%20(Connected%2C%20Autonomous,evaluation%20of%20self%2Ddriving%20vehicles.&text=Taiwan%20CAR%20Lab%20is%201.75%20hectare

[4160] Luana Pascu, *Public Bank of Taiwan rolls out Kneron edge AI facial recognition, Biometric Update* (Sept. 24, 2019), https://www.biometricupdate.com/201909/public-bank-of-taiwan-rolls-out-kneron-edge-ai-facial-recognition

[4161] Telpo, *7-Eleven Opens the 2nd Face Recognition Unstaffed Store in Taiwan* (Nov. 20, 2018), https://www.telpo.com.cn/blog/7-eleven-taiwan-face-recognition-store.html

[4162] Gorilla, *Taiwan's International Airports Implement Gorilla Biometrics Technology to Improve Airport Operations and Security* (Dec. 23, 2016), https://www.gorilla-technology.com/Press-Room/Taiwan's-International-Airports-Implement-Gorilla-Biometrics-Technology-to-Improve-Airport-Operations-and-Security

[4163] AsiaOne, *Privacy not violated by facial recognition technology, says Taiwan police agency* (May 28, 2014), https://www.asiaone.com/asia/privacy-not-violated-facial-recognition-technology-says-taiwan-police-agency

no longer apply facial recognition technology.[4164] Artificial intelligence–based surveillance will still be capable of monitoring railway passenger behavior, including trespassing, loitering in restricted areas, and prohibited acts.[4165]

In 2019, Liao Wei-min, an associate professor at Taiwan National Chung Hsing University's Department of Law called for legislation limiting facial recognition and similar private data collection. "What is essentially a beneficial technology is deeply problematic given the lack of precise and targeted legislation, and this is the fault not of civil servants, but their politically appointed masters. Something needs to be done to address this."[4166] As yet, however, there have been no formal proposals by Taiwan's government to protect citizens from the risks of facial recognition used for surveillance.

EdTech and Children Tracking

A recent report from Human Rights Watch[4167] highlighted a practice, exacerbated by the need for virtual learning during the COVID-19 pandemic, for governments to require young students to use educational technology that shared the children's personal data with advertising technology companies. Taiwan-based technology companies produce several of the educational technology and advertising technology products implicated by the report. Additionally, Taiwan's government produced three of its own, proprietary educational technology products that transmitted personal data about children to advertising technology companies. As the report notes, by making it compulsory for children to use this technology in order to access public education, these governments not only subjected children to potential exploitation of their data but also left no alternative for children and families to opt out of this privacy infringement.[4168]

[4164] Focus Taiwan, *TRA to cut facial recognition feature from surveillance system trial* (Nov. 6, 2019), https://focustaiwan.tw/society/201911060011

[4165] IAPP, *Taiwan Railways Administration excludes facial recognition from surveillance trial* (Nov. 7, 2019), https://iapp.org/news/a/taiwan-railways-administration-excludes-facial-recognition-from-surveillance-trial/

[4166] Liao Wei-min, Legislation needed for advances in surveillance, Taipei Times (Dec. 28, 2019), http://www.taipeitimes.com/News/editorials/archives/2019/12/28/2003728301

[4167] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[4168] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments.

Lethal Autonomous Weapons

Taiwan is not a member of the United Nations and thus was not a party to the UN's October 2022 Joint Statement on Lethal Autonomous. The Taiwan government has not taken a formal policy position on the application of these lethal technologies.

Human Rights

Taiwan is ranked by Freedom House as a global leader in its protection of human rights and transparency, with a combined score for political and civil liberties of 94 out of 100, the highest score for any nation in Asia.[4169] Freedom House additionally awarded Taiwan top marks for internet freedom, characterizing the nation as, "one of the freest online environments in Asia. An independent judiciary protects free expression. Civil society, the technology sector, and the government have taken innovative action to counteract the impact of disinformation campaigns originating from China."[4170] Freedom House notes that a prominent concern threatening the continuation of these liberties relates to "the Chinese government's efforts to influence policy-making, the media, and democratic infrastructure in Taiwan."[4171]

In April 2022, the Executive Yuan authorized the establishment of the Department of Human Rights and Transitional Justice under its authority on April 22, and in May 2022 it approved the first national action plan on human rights. "The premier pointed out that, to date, Taiwan has created its own laws to implement five of the United Nations' nine core international human rights instruments—the International Covenant on Civil and Political Rights; International Covenant on Economic, Social and Cultural Rights; Convention on the Elimination of All Forms of Discrimination against Women; Convention on the Rights of the Child; and Convention on the Rights of Persons with Disabilities." "To reconcile and align the nation's policies to human rights values, the plan lays out open and transparent procedures and involves widespread participation by government, civic groups, and scholars and experts from all sectors. Aside from striving for equality and nondiscrimination against vulnerable groups such as children and youth, the elderly, mentally or physically disabled people, indigenous peoples, migrant workers and the LGBTI community, the plan presents concrete actions and performance indicators for new and

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[4169] Freedom House Report*, Taiwan* (2022),
https://freedomhouse.org/country/taiwan/freedom-world/2022
[4170] Freedom House Report, *Taiwan* (2022),
https://freedomhouse.org/country/taiwan/freedom-net/2022
[4171] Freedom House Report, *Taiwan* (2022),
https://freedomhouse.org/country/taiwan/freedom-net/2022

emerging human rights issues, such as" digital human rights. Such concrete actions include "efforts to prevent digital technologies from violating human rights."[4172]

OECD / G20 AI Principles

Although Taiwan is not an OECD member country, many of its AI policies align with the OECD AI Principles. The Ministry of Science and Technology noted in its announcement of the AI Technology R&D Guidelines that "many countries and organizations have established ethical standards for AI R&D, such as the EU's Ethics Guidelines for Trustworthy AI, OECD's Principles on Artificial Intelligence and IEEE's Ethically Aligned Design-Version II."[4173]

Taiwan AI Labs and Taiwan Federated Learning Alliance have been invited to participate in the 2021 Global Partnership on AI Annual Meetings. "Members and participants of GPAI are brought together first and foremost by a shared commitment to the values expressed in the OECD Recommendation on Artificial Intelligence. All GPAI activities are intended to foster responsible development of AI grounded in these principles of human rights, inclusion, diversity, innovation and economic growth."[4174]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Taiwan has not been a member of the United Nations since 1971, when the country was expelled via United Nations Resolution 2758, in deference to the People's Republic of China which was henceforth recognized as "the only legitimate representative of China to the United Nations."[4175] Taiwan is not a party to the UNESCO Recommendation on the Ethics of AI.

Evaluation

Although Taiwan is not an OECD member country, many of its AI policies align with the OECD AI Principles. There is also a robust public

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[4172] Department of Information Services, Executive Yuan, *Taiwan unveils first national human rights action plan* (May 5, 2022), https://english.ey.gov.tw/Page/61BF20C3E89B856/d4db0a5a-0a13-47fe-bd4c-bbab6af39405

[4173] Digitimes, *MOST announces AI R&D guidelines* (Sept. 24, 2019), https://www.digitimes.com/news/a20190923PD209.html.

[4174] Global Partnership on Artificial Intelligence, *About GPAI*, https://gpai.ai/about/

[4175] Sigrid Winkler, Brookings Institute Op-Ed, *Taiwan's UN Dilemma: To be or not to be* (June 20, 2012), https://www.brookings.edu/opinions/taiwans-un-dilemma-to-be-or-not-to-be/

debate about the use of AI for facial recognition, medical data, and autonomous vehicles. But concerns arise with the integration of government data sets while there is currently no independent data protection agency that could oversee AI applications. The PDPA would also benefit from being revised and including algorithmic transparency. The lack of regulation regarding facial recognition is also of concern. The Government's commitment to create an independent data protection commission by August 2024 is a positive step. So is the 2022 first national human rights action plan which covers digital human rights.

Thailand

National AI Strategy

   Thailand's national AI strategy and action plan (2022 – 2027) was approved by the Prime Minister's Cabinet Office on July 26, 2022. The vision of the strategy is for Thailand to have an effective ecosystem for developing and applying AI, that will be proven to enhance the economy and improve the quality of life of Thais by 2027.[4176]

   Thailand's National AI Strategy has the following 5 sub-strategies and 15 work plans:[4177]

1. Preparing Thailand's readiness in social, ethics, law, and regulation for AI application
  - At least 600,000 Thai population have awareness of AI law and ethics
  - An AI Law & Regulation is enforced
    1.1 Policy and standard for AI Ethics
    1.2 Driving awareness and education for AI Ethics

2. Developing Infrastructure for Sustainable AI Development
  - Increase Thailand's Government AI Readiness index to rank among the top 50 globally
  - Increasing digital infrastructure investment by 10% per year to support AI development in both public & private sectors
    2.1 Creating AI expert networks
    2.2 Creating a national platform for advanced data analytics and management
    2.3 Creating a national AI service platform
    2.4 Developing High-Performance Computing (HPC) infrastructure

3. Increasing human capability and improving AI education
  - Creating more than 30,000 AI talents within 6 years

[4176] AI Thailand, *Connect the dots of AI: driving Thailand future* (July 26, 2022), https://www.ai.in.th/en/about-ai-thailand/

[4177] AI Thailand, *Connect the dots of AI: driving Thailand future* (July 26, 2022), https://www.ai.in.th/en/about-ai-thailand/

                  3.1 Improving AI education and knowledge creation

                  3.2 AI Scholarship programs

                  3.3 Cooperation mechanism development with researchers & experts from abroad

4. Driving AI technology and innovation development
   - Strengthen AI technology by developing at least 100 R&D prototypes within 6 years
   - Wide adoption of AI research, development, and innovation helps create business & social impact of at least 48 billion Baht by 2027

                  4.1 Applying AI technology and innovation for strategic sectors

                  4.2 Developing AI core technology and platform

5. Promoting the use of AI in public and private sectors
   - Number of agencies (government, business & new entrepreneurs) using AI innovation is increased to at least 600 agencies in 6 years
   - Thailand's AI competitiveness is increased by AI applications

                  5.1 Promoting AI use in the government sector

                  5.2 Promoting AI use in key industries

                  5.3 Promoting the system integrator industry with AI capability

                  5.4 Developing mechanisms & sandboxes for business innovation and AI startup

Thailand's National AI Strategy targets development in the following 10 sectors:[4178]

1. Manufacturing: Smart manufacturing, Industry assessment and testbed
2. Energy and Environment: Energy management, Environmental geospatial analytics
3. Medical and Wellness: AI in self-care, Chronic disease, Medical assistant
4. Food and Agriculture: Digital farm, Food quality
5. Education: Smart education, Geography of educational opportunities

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[4178] AI Thailand, *Connect the dots of AI: driving Thailand future* (July 26, 2022), https://www.ai.in.th/en/about-ai-thailand/

6. Tourism and Creative Economy: Smart guidance and planning, Tourism service quality, Smart tourism area
7. Security: Public surveillance platform, Crime response system, Cyber security
8. Logistics and Transportation: Intelligent transportation, Transport map
9. Finance and Commerce: Credit scoring, CRM
10. Government Service: Government administration, Government services

The national policy and plans are formulated with an emphasis on digital technologies empowering people to increase their 'citizen well-being and quality of life.' Increasing the transparency and accountability of public agencies is mentioned several times in these plans. However, it is not clear how the goals will be adopted by the agencies and how the actions will be coordinated across different levels of government.

There is no explicit mention of concepts such as fundamental rights, human rights, rule of law, and fairness with respect to AI in the plans. 12th National Economic and Social Development Plan acknowledges that Thailand "has high inequality and a lack of fairness"[4179] across society. The only mention of any AI ethics guidelines is acknowledging the existence of EU Ethics Guidelines for Trustworthy AI, and the World Government Summit's Ethical AI Systems Design through a reference within a Thailand Digital Government Development (TDG)Plan summary document[4180]. Electronic Government Agency (EGA), as the agency responsible to implement standards, models, measures, principles, and approaches in the form of digital technology, only mentions openness, integrity, and collaboration under its eight core values.[4181]

In 2019, the Ministry of a Digital Economy and Society, academics and experts from Mahidol University and Microsoft Thailand joined together to draft Digital Thailand – Draft AI Ethics Guidelines, to serve as a manual and provide ethical codes for AI development in government agencies, private firms, regulatory bodies, researchers, designers, developers, and users. The draft guidelines cover six aspects of development: competitiveness and sustainable development; legal

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[4179] *The Twelfth National Economic and Social Development Plan (2017-2021),*
https://www.nesdc.go.th/nesdb_en/ewt_dl_link.php?nid=4345
[4180] Digital Government Development Agency, *How Government is Transforming with AI.*
https://www.dga.or.th/upload/download/file_310433b825a546dcfd59203b423ca175.pdf
[4181] Digital Government Development Agency, *DGA Core Value,*
https://www.dga.or.th/en/about-us/core-value/

regulations and international ethical standards; operational codes and duties; security and privacy; equality, diversity, and fairness; and credibility.[4182] Digital Thailand – AI Ethics Guideline was published in November 2019[4183] and taken up by the Cabinet of Thailand in December 2020.[4184] This was approved by the Cabinet in February 2021 and is freely available and accessible online however the document is currently only in the Thai language.[4185]

The Office of National Higher Education Science Research and Innovation Policy Council (NXPO) established five technical working groups to explore ethical issues in genetic engineering and technology; artificial intelligence, robotics, and big data; climate change and environment; research ethics; and communications and youth engagement in science and technology policy development.[4186] One of the recent outcomes is the Bangkok Statement on the Ethics of Science and Technology and Sustainable Development[4187], a statement calling for the concerted efforts of all stakeholders to take action on the ethics of science and technology so that new technologies can be progressed and fully developed to benefit mankind.

While Thailand's National AI Strategy seeks to enhance the development of AI across multiple sectors of the economy, there is research that has also highlighted the risk of job disruption due to AI.[4188] The Thailand Development Research Institute (TDRI) estimated that 8.3 million

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[4182] National News Bureau of Thailand, *Digital Ministry outlines AI ethics* (Oct. 24, 2019), https://thainews.prd.go.th/en/news/detail/TCATG191024113200588

[4183] Alita Sharon, Thailand Drafts Ethics Guidelines for AI, Open Gov Asia (Nov. 4, 2019), https://opengovasia.com/thailand-drafts-ethics-guidelines-for-ai/

[4184] Suchit Leesa-Nguansuk, National AI ethics going to cabinet, Bangkok Post (Nov. 17, 2020), https://www.bangkokpost.com/tech/2020635/national-ai-ethics-going-to-cabinet

[4185] Thailand Ministry of Digital Economy and Society, *Digital Thailand – AI Ethics Guideline*, https://www.etda.or.th/getattachment/9d370f25-f37a-4b7c-b661-48d2d730651d/Digital-Thailand-AI-Ethics-Principle-and-Guideline.pdf.aspx?lang=th-TH

[4186] NXPO, *Sandbox Act and Guidelines* (2020), https://www.nxpo.or.th/th/en/sandbox-act-and-guideline/

[4187] *Bangkok Statement on the Ethics of Science and Technology and Sustainable Development*, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiHvuz92-f8AhW8gP0HHUWlD6YQFnoECA4QAQ&url=https%3A%2F%2Fwaa.inter.nstda.or.th%2Fstks%2Fpub%2F2020%2F20200717-conference-ethics.pdf&usg=AOvVaw0R6_-NOvCWbwPrGQu0NgC5

[4188] Elina Noor and Mark Bryan Manantan, *Raising Standards: Data and Artificial Intelligence in Southeast Asia*, Asia Society Policy Institute (July 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

Thais work in high-risk occupations where there is an over 70 percent likelihood that they will be replaced by AI.[4189] The International Labor Organization (ILO) furthermore warned that women in Thailand face a higher risk of job disruption from AI as they currently lack access to STEM education and training opportunities.[4190]

On the other hand, a study commissioned by Microsoft-IDC, found that while 30 percent of jobs in Thailand will be outsourced, automated, or made obsolete by AI, an equal number of new roles in the workforce will also be created.[4191] Whether AI adoption in Thailand will result in job disruption or job transformation will be determined by the overall readiness and AI-preparedness of both younger and older Thais.[4192] Hence the significance of Thailand's National AI Strategy also envisioning the increase of human capability and the improvement of AI education.[4193]

Public Participation

Under the Digital Government Plan (2017-21), "Creating Government Data that Easily Accessed and Improve Government Transparency and Public Participation" is defined as one of the four goals.[4194] Two of the indicators that the plan commits to measuring itself against are "Promoting Country's Open Data Index to place in the World's top 25" and "Creating e-Gov Act". However, all the plans and the majority of initiatives relating to AI have been developed by the central government rather than any meaningful public participation.

[4189] Eijas Ariffin, *Disruptive technology could cost Thai job*s, The ASEAN Post (Oct. 31, 2018), https://theaseanpost.com/article/disruptive-technology-could-cost-thai-jobs

[4190] Jae-Hee Chang and Phu Huynh, *ASEAN in Transformation: The Future of Jobs at Risk of Automation*, International Labour Organization (ILO) (July 2016), https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---act_emp/documents/publication/wcms_579554.pdf

[4191] Thornthawat Thongnab, *Microsoft Showcases AI Capabilities in Thailand, Sets Stage for Platform Leadership to Empower Every Person and Organization*, Microsoft (Nov. 28, 2018), https://news.microsoft.com/th-th/2018/11/28/futurenow_ai_en/

[4192] Rachaniphorn Ngotngamwong, *Artificial Intelligence and Its Impacts on Employability*, Human Behavior, Development and Society (June 2020), https://so01.tci-thaijo.org/index.php/hbds/article/download/230753/164140

[4193] AI Thailand, *Connect the dots of AI: driving Thailand future* (July 26, 2022), https://www.ai.in.th/en/about-ai-thailand/

[4194] *Thailand Digital Government Development Plan 2017-2021,* http://jfcct.bypronto.com/wp-content/uploads/sites/1871/2018/05/Digital-Government-Development-Plan-2017-2021-executive-version.pdf

In August 2020, UNESCO organized a virtual national consultation with youth in Thailand to gather their feedback on the first draft of the UNESCO Recommendation on the Ethics of AI.[4195]

Data Protection

Thailand's Personal Data Protection Act (PDPA) is the country's first consolidated law on data protection, framing the collection, use, and disclosure of personal data, drawing key concepts and principles from the EU General Data Protection Regulation (GDPR), and establishing a Personal Data Protection Committee.[4196] Enforcement of the PDPA began on June 1, 2022.[4197] The PDPA defines personal data as "any information relating to a person that enables that person to be identified, whether directly or indirectly."[4198] The PDPA mandates that Data protection officers (DPO) must be appointed for government agencies and firms with large-scale data processing. DPOs will be responsible for helping organizations ensure that personal data is processed in compliance with the PDPA. DPOs will also serve as contact points on PDPA issues with the authorities and data subjects.[4199] Research on the PDPA highlights certain gaps in data protection, such as some provisions that grant the Thai government certain preferential exemptions, and allow it to exercise a relative degree of flexibility to expand its powers should it deem necessary.[4200] For example, the PDPA currently mandates the outright exclusion of public authorities involved in national security, law enforcement, and the National Credit Bureau from its' ambit.[4201] The definition of personal data in the PDPA also lacks clarity as to whether it covers IP addresses and cookie identifiers.[4202]

[4195] UNESCO, *Virtual National Consultation with Youth on the Ethics of Artificial Intelligence in Thailand* (Aug. 5, 2020), https://events.unesco.org/event?id=1503020285&lang=1033

[4196] Government Gazette, *Personal Data Protection Act B.E. 2562 (2019)* (May 27, 2019) (unofficial translation), link

[4197] Janine Phakdeetham, *Explainer: What is PDPA, Thailand's new data law?* (June 1, 2022), https://www.bangkokpost.com/business/2319054/explainer-what-is-pdpa-thailands-new-data-law-

[4198] Ibid.

[4199] Ibid.

[4200] Elina Noor and Mark Bryan Manantan, *Raising Standards: Data and Artificial Intelligence in Southeast Asia, Asia Society Policy Institute* (July 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

[4201] Ibid.

[4202] Ibid.

Moreover, the PDPA does not currently provide a definition of anonymized or pseudonymized data.[4203]

The Digitalization of Public Administration and Services Delivery Act requires the establishment of a government data exchange center that acts as a sharing center for digital data and digital registration between State Agencies to support their operations in the provision of services to the people via digital means.[4204] The data exchange center shall also determine policies and standards in relation to interconnectivity and sharing of digital data and present them for the approval of the Digital Government Development Commission.[4205] The Act mandates that the public shall have free access to the digital data from state agencies, and be able to distribute or utilize the data or use it as a means to develop services and innovation in various ways.[4206] As per the Act, the Digital Government Development Commission will prescribe standards and rules on the disclosure of such data.[4207] The Electronic Transactions Development Agency (ETDA), under the Ministry of Digital Economy and Society, builds confidence in innovation with the ETDA Sandbox testing field. The ETDA cooperates with the Bank of Thailand to expand the scope of innovation testing, which covers innovations in health tech, and AI. The ETDA and Bank of Thailand also cooperate in driving operations corresponding to the government policy of the Face Verification System (FVS). [4208]

Thailand was neither a co-sponsor of the 2018 and 2020 Global Privacy Assembly (GPA) resolutions on AI nor of the 2022 GPA resolution on facial recognition technology.[4209]

AI System for Surveillance

The AI System for Surveillance and Criminal Analysis in Public is piloted in east Bangkok. The pilot project links with security cameras at

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[4203] Alexis Kateifides et al., *Comparing privacy laws: GDPR v. Thai Personal Protection Act*, OneTrust DataGuidance (Dec. 18, 2019), https://www.dataguidance.com/sites/default/files/gdpr_v_thailand_updated.pdf

[4204] Digital Government Development Agency Thailand, Digitalization of Public Administration and Services Delivery Act (May 19, 2019), https://www.dga.or.th/wp-content/uploads/2021/02/6.pdf

[4205] Ibid.

[4206] Ibid.

[4207] Ibid.

[4208] Electronic Transactions Development Agency (ETDA) Thailand, *ETDA Revamps New Step in 2022 "Build a Better Digital Life with Digital Technology"* (Nov. 17, 2021), https://www.etda.or.th/en/pr-news/ETDA-Revamps-New-Step-in-1.aspx

[4209] Global Privacy Assembly (GPA), *Adopted Resolutions*, https://globalprivacyassembly.org/document-archive/adopted-resolutions/

crime hotspots under Huai Kwang police jurisdiction. Its facial recognition compares faces against photos in a database of arrest warrants, while its behavior analysis aims to prevent petty crime.[4210] The Thai government positions the pilot program as a public safety tool under its wider Thailand 4.0 and Smart Cities initiatives. The government also plans to build five Smart Cities within 3 years.

The Interim report of the United Nations (UN) Special Rapporteur on freedom of religion or belief to the 75th session of the UN General Assembly in 2020 found that Thai authorities reportedly used AI-enabled closed-circuit television system, biometric data, and frequent police checks to surveil minority Muslim groups.[4211] The Thai military denied using AI to surveil Muslims in Thailand's restive southern provinces where an armed insurgency since 2004 has killed more than 7000 people.[4212]

Anti-fake News Centre

In November 2019, Thailand launched its "Anti-fake News Centre." The Ministry of Digital Economy and Society defines "fake news" as any viral online content that misleads people or damages the country's image. The Centre is staffed by around 30 officers at a time, who review online content, gathered through "social listening" tools. Coupled with a law prohibiting criticism of the monarchy, the Centre allows the government to potentially censor or suppress any news it finds broadly affecting "peace and order, good morals, and national security"[4213] without the need for evidence.

In February 2022, the Cabinet of Thailand approved a regulation to set up centers at three different levels to coordinate efforts to tackle fake news on social media. A central coordination center would be set up at the permanent secretary's office of the Ministry of Digital Economy and Society (MDES). Furthermore, each ministry will also set up its own center to deal with fake news. The Provincial Administration Department of the Interior Ministry would also set up similar centers in all provinces under the

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[4210] The Nation Thailand, *Bangkok police to pilot AI surveillance system* (July 25, 2019), https://www.nationthailand.com/news/30373672

[4211] OHCHR, A/75/385: *Interim report of the Special Rapporteur on freedom of religion or belief, Ahmed Shaheed: Elimination of all forms of religious intolerance* (Oct. 12, 2020), https://www.ohchr.org/en/documents/thematic-reports/a75385-interim-report-special-rapporteur-freedom-religion-or-belief

[4212] Mariyam Ahmad, *Thai Military Denies Using AI to Monitor Muslims in Deep South*, Benar News (Nov. 16, 2020), https://www.benarnews.org/english/news/thai/monitoring-concerns-11162020172147.html

[4213] Reuters, *Thailand unveils 'anti-fake news' centre to police the internet* (Nov. 1, 2019), https://jp.reuters.com/article/us-thailand-fakenews-idUSKBN1XB48O

leadership of provincial governors or their deputies.[4214] According to the regulation, officials must alert the public immediately in the event of the spread of fake news and inform the Public Relations Department within one hour to correct the news and take action against those spreading it. Officials must also promptly notify the MDES to remove the fake news from the computer system.[4215]

Digital ID

Thailand is currently working on legislation that would replace physical ID cards with the Digi-ID which will be the backbone of the e-commerce transactions in the country. It is planned to use blockchain to securely exchange user data but also requires facial recognition verification in an effort towards a "self-sovereign" digital identity management system.[4216] It remains unclear how the government conducted the risk or impact assessment on the mandatory use of biometric data.

The use of digital ID cards through a mobile application started in Thailand in January 2023 for people who use public services provided by government agencies under the Internal Affairs Ministry. The digital ID will eventually be expanded to other government and private agencies such as commercial banks. The use of digital IDs is regulated by Section 14 of the Digital Public Service Act. People who want to get access to D.Dopa, the digital ID mobile application, have to register with their district office's registry division using their actual ID cards. From the perspective of the Ministry of Digital Economy and Society (DES), the digital ID will be safer than the smart ID card as it will be more difficult to steal data.[4217]

EdTech and Children Tracking

According to this report by Human Rights Watch (HRW), Thailand's Digital Education Excellence Platform (DEEP) is one of 56 EdTech products built or financed by governments that transmitted children's data to AdTech companies.[4218] This represents a violation of

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[4214] Bangkok Post, *Government to form centres to tackle fake news*, (Feb. 1, 2022), https://www.bangkokpost.com/thailand/general/2257119/government-adopts-multi-level-approach-to-fake-news

[4215] Ibid.

[4216] Thailand, *Digital Identity for All,* https://www.ndid.co.th/

[4217] Mongkol Bangprapa, *Govt readies phone app digital ID*s, Bangkok Post (Jan. 4, 2023), https://www.bangkokpost.com/thailand/general/2474884/govt-readies-phone-app-digital-ids

[4218] Human Rights Watch, '*How Dare They Peep into My Private Life?' Children's Rights Violations by Governments that Endorsed Online Learning During the Covid-19*

children's privacy. In addition, HRW found that Edmodo, an online learning platform used by Thailand and several other countries, may have granted access to their users' contact data to third-party companies.[4219] Furthermore, HRW found that Edmodo has the capability to collect Android Advertising ID (AAID) for those using an Android device, which enables advertisers to track a person, over time and across different apps installed on their device, for advertising purposes.[4220] HRW highlighted that an AAID is neither necessary nor relevant for an app to function.[4221] Thailand's usage of Edmodo for children's learning during the COVID-19 pandemic, therefore, compromised their privacy.

Lethal Autonomous Weapons

Thailand expressed concern at the "wide and understudied implications" of lethal autonomous weapons systems and affirmed "the importance of respecting and evolving international humanitarian law." It has not commented on calls to ban such weapons and retain meaningful human control over the use of force. Thailand is not a Convention on Conventional Weapons (CCW) state party.[4222] Thailand is not a part of the group of 70 states that delivered a joint statement on autonomous weapons systems at the United Nations General Assembly (UNGA) in October 2022.[4223]

Human Rights

Thailand has experienced 19 constitutional changes in less than a century. The government acknowledges that Thailand is both a destination and transit country for human trafficking linked to illegal immigration, child labor, and prostitution.[4224] However, most of the plans put the responsibility of respecting human rights on the citizens and not the government. The ongoing 2020 protests are citizens criticizing the government and

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Pandemic (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[4219] Ibid.

[4220] Ibid.

[4221] Ibid.

[4222] UN, *High Contracting Parties and Signatories CCW*: https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/high-contracting-parties-and-signatories-ccw/

[4223] Stop Killer Robots, *70 states deliver joint statement on autonomous weapons systems at UN General Assembly* (Oct. 21, 2022), https://www.stopkillerrobots.org/news/70-states-deliver-joint-statement-on-autonomous-weapons-systems-at-un-general-assembly/

[4224] Office of the National Economic and Social Development Board Office of the Prime Minister, Thailand, *The Twelfth National Economic and Social Development Plan (2017-2021),* https://www.nesdc.go.th/nesdb_en/ewt_w3c/main.php?filename=develop_issue

requesting reform of the monarchy. In response, the Thai government has extended emergency powers of the existing emergency decree. Under the 2017 Constitution, members of the NCPO are protected from prosecution for human rights violations committed during NCPO rule.[4225] This protection is concerning given the reports of torture, extrajudicial executions, and enforced disappearances against, human rights defenders.

The recent Thailand Cybersecurity Act gives the government the authority to monitor and seize data and equipment without a court order in the name of cybersecurity risk and denies anyone targeted by the law in the cases of a crisis or critical threat the right to any appeal.[4226] Despite continuous promises of reform, Thai authorities continue to suppress and prosecute citizens criticizing the monarchy or the military. The combination of AI policing, Fake-News monitoring, and the Cybersecurity Act creates further concerns about fundamental rights. A group of international public and private experts and NGOs launched the study Thailand's Cybersecurity Act: Towards a Human-Centered Act Protecting Online Freedom and Privacy, While Tackling Cyber Threat to help build the discourse on the necessity of applying a human rights-based approach to cybersecurity legislation.[4227]

Freedom House gives Thailand low marks for political and civil liberties in its Freedom in the World 2022 report (29/100).[4228] Freedom House highlighted that in 2021 the combination of democratic deterioration and frustrations over the role of the monarchy in Thailand's governance triggered large and regular anti-government protests. The government responded with authoritarian tactics, such as arbitrary arrests, intimidation, lèse-majesté charges, and harassment of activists.[4229] Freedom House also noted that "press freedom is constrained, due process is not guaranteed, and there is impunity for crimes committed against activists."[4230] Thailand

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[4225] Constitute, *Thailand's Constitution of 2017*,
https://www.constituteproject.org/constitution/Thailand_2017.pdf?lang=en

[4226] Voice of America, *Rights Groups Urge Thai Government to Curb Powers in New Cybersecurity Act* (Sept. 24, 2019), https://www.voanews.com/a/east-asia-pacific_rights-groups-urge-thai-government-curb-powers-new-cybersecurity-act/6176371.html

[4227] Manushya Foundation, *Thailand' Cybersecurity Act: Toward a Human-Centered Act Protecting Online Freedom and Privacy, While Tackling Cyber Treats* (Sept. 2019), https://www.manushyafoundation.org/study-on-cybersecurity-act

[4228] Freedom House, *Freedom in the World 2022: Thailand* https://freedomhouse.org/country/thailand/freedom-world/2022

[4229] Freedom House, *Freedom in the World 2022: Thailand* https://freedomhouse.org/country/thailand/freedom-world/2022

[4230] Freedom House, *Freedom in the World 2022: Thailand* https://freedomhouse.org/country/thailand/freedom-world/2022

passed Gender Equality Act in 2015. However, the legislation still allows for exceptions to gender discrimination on grounds of religion and national security.[4231]

Thailand has endorsed the Universal Declaration of Human Rights in 1948.

OECD / G20 AI Principles

Thailand has not endorsed the OECD AI Principles. However, Thailand is also the only country from Southeast Asia to benefit from an OECD Country Program which comprises 15 projects drawing from four key strategic pillars: good governance and transparency, business climate and competitiveness, "Thailand 4.0" and inclusive growth. It includes peer reviews, capacity-building activities, inclusion in the OECD's statistical tools, participation in eight OECD Committees or their subsidiary bodies, and adherence to nine OECD legal instruments.[4232]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Thailand has adopted the UNESCO Recommendation on the Ethics of AI.[4233] Since the adoption of the UNESCO Recommendation, Thailand has yet to make public announcements concerning implementation.

The UNESCO Bangkok Office however invited youth in the Asia Pacific region working in the field of ethics of AI to apply for project funding in June 2021.[4234] UNESCO was interested in funding projects in the following areas:[4235]

- Research work exploring the legal and public policy implications of the rise in AI technology

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[4231] United National, *Human Rights Treaties,* https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CCPR/C/THA/CO/2&Lang=En

[4232] OECD, *A Solid Partnership between Thailand and the OECD,* http://www.oecd.org/southeast-asia/countries/thailand/

[4233] UNESCO, *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence* (November 25, 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence

[4234] UNESCO, Invitation to Apply for Funding for "Youth-led Projects in AI Ethics" (June 7, 2021), https://bangkok.unesco.org/content/invitation-apply-funding-youth-led-projects-ai-ethics

[4235] Ibid.

- Research projects exploring the intersection of AI, the social sciences, and the humanities including but not limited to art, culture and philosophy
- Development of knowledge products that contribute to increased understanding of AI technologies, its relevance and associated ethical challenges
- Awareness-raising and advocacy work related to ethical usage of AI technologies
- Projects using AI technologies for socially beneficial outcomes
- Any other youth-led projects that contribute to increased understanding of AI technologies and AI ethics issues among young people, AI ethics stakeholders and the general public

Evaluation

Thailand has taken steps to govern AI and protect personal data with the release of its National AI Strategy, Digital Thailand – AI Ethics Guideline, enforcement of the Personal Data Protection Act (PDPA), and adoption of the UNESCO Recommendation on the Ethics of AI. However, concerns exist with regard AI-powered surveillance practices.

Trinidad and Tobago

National AI Strategy

Trinidad and Tobago has not developed a national AI strategy so far. However there are other relevant policy initiatives.

In August 2022, the Ministry of Digital Transformation,[4236] in charge of the digitalization of Trinidad and Tobago, released a draft national digital transformation strategy.[4237] The strategy identifies three pillars of digital transformation: Digital Society, described as "people centered and knowledge based – access, skills, participation (inclusion), connected communities"; Digital Government focusing on "Public value – efficiency in service delivery, citizen-centric, no-wrong door"; and Digital Economy.[4238] The strategy includes guidelines for developing policies, such as inclusion (digital, social, financial), access, safety and security (protection of fundamental rights).

The national digital transformation strategy is part of the National Development Strategy (NDS) 2016-2030, "Vision 2030." The Vision is "intended to provide for an orderly long-term development process, inclusive of the United Nations (UN) Sustainable Development Goals (SDGs)."[4239] Keith Rowley, Trinidad and Tobago's Prime Minister stated, "I am committed to rebuilding our country and economy, restoring confidence, equity and social justice, and improving every area of national life. We recognise that, as a nation, we face several challenges— some

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[4236] Government of the Republic of Trinidad and Tobago, *Appointment of Minister of Digital Transformation* (July. 12, 2021), http://www.news.gov.tt/content/appointment-minister-digital-transformation#.YlDvCNPMJ25; Beena Mahase, *Bacchus: We are becoming a digital society*, TT Loop, (March. 2, 2022), https://tt.loopnews.com/content/bacchus-we-are-going-become-digital-society; Government of the Republic of Trinidad and Tobago, Senator, the Honourable Allyson West, http://news.gov.tt/content/senator-honourable-allyson-west#.YlD6ctPMJ24

[4237] Ministry of Digital Transformation, *National digital transformation strategy*, https://mdt.gov.tt/media/Digital%20Priorities.pdf

[4238] Ministry of Digital Transformation, *National digital transformation strategy*, https://mdt.gov.tt/media/Digital%20Priorities.pdf

[4239] Government of the Republic of Trinidad and Tobago, *Vision 2030* (2016), https://www.planning.gov.tt/sites/default/files/Vision%202030-%20The%20National%20Development%20Strategy%20of%20Trinidad%20and%20Tobago%202016-2030.pdf.

triggered by global events beyond our control, with consequential ripple effects at the national level."[4240]

The Ministry of Digital Transformation aims to turn Trinidad and Tobago into a digital society.[4241] The objective is "to create a new way to address the end-to-end consumption and delivery of goods & services to customers using appropriate digital technology"[4242] and to "ensure that all citizens and residents are able to participate in a digital society and to have access to digital resources".[4243]

The "implementation arm" of the Ministry for Digital Transformation is the National Information and Technology Company, IgovTT.[4244] It has been tasked with the procurement, project management and implementation of IT solutions for the Government of Trinidad and Tobago.[4245] Its CEO, Kirk Henry, pointed out in an interview in March 2021 that the objective is to "create a culture of innovation and accelerate digitalized public services".[4246]

Trinidad and Tobago also developed a Cloud Computing Consideration Policy advancing the adoption of cloud services and procurement from the public sector together with a National Hybrid Cloud (GovNeTT NG) enabling public sector entities to acquire greater information security controls.[4247]

Trinidad and Tobago's digital policy will be supported by the Inter-American Development Bank (IDB). In March 2022, the IDB approved a

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[4240] Government of the Republic of Trinidad and Tobago, *Vision 2030* (2016), Preface, https://www.planning.gov.tt/sites/default/files/Vision%202030-%20The%20National%20Development%20Strategy%20of%20Trinidad%20and%20Tobago%202016-2030.pdf.

[4241] Loop News Agency, *Bacchus: We are becoming a digital society* (March 2, 2022), https://tt.loopnews.com/content/bacchus-we-are-going-become-digital-society

[4242] Ministry of Trinidad and Tobago, Twitter account, https://mobile.twitter.com/mdt_tt

[4243] Senator The Honorable Hassel Bacchus, in *Who's Who in Trinidad and Tobago Business* (Oct. 6, 2022), https://www.whoswhotnt.com/attaining-digital-nation-status-for-trinidad-and-tobago/

[4244] National Information and Communication Technology, https://www.igovtt.tt/

[4245] The National Information and Communication Technology Company, *About us*, https://www.igovtt.tt/company-profile/

[4246] I -cio, Global Intelligence for Digital Leaders, *Driving the digital transformation of Trinidad and Tobago* (March 2021), https://www.i-cio.com/strategy/digitalization/item/igovtt-bringing-digital-transformation-of-trinidad-and-tobago

[4247] Ministry of Public Administration, *Cloud Computing Consideration Policy* (March 2020), https://mpa.gov.tt/sites/default/files/file_upload/publications/Cloud%20Computing%20Policy%202020.pdf

New Country Strategy for Trinidad and Tobago on Digital Transformation. The strategy aims to help the country implement its digital transformation agenda to achieve more sustainable and inclusive growth, which is the first pillar of the country's medium and long-term post-pandemic development plan. The strategy focuses on three areas: improving the business environment to enable digital transformation; expanding the use of digital tools to improve educational outcomes and digital skills; and enhancing the delivery of services.[4248]

Trinidad and Tobago has also been part of the Caribbean Artificial Intelligence Initiative led by the UNESCO Cluster Office for the Caribbean and the Broadcasting Commission of Jamaica (BCJ), with the support of UNESCO Information for all Program (IFAP) National Committee of Jamaica.[4249] The Initiative "aims to develop a sub-regional strategy on the ethical, inclusive and humane use of AI in the Caribbean Small Island Developing States".[4250] The Caribbean AI Policy Roadmap was released in June 2021,[4251] following a period of stakeholder consultation.[4252]

On February 18-19, 2021, a two-day "Artificial Intelligence Forum: Opportunities to Accelerate Human Progress for Sustainable Development in Caribbean Small Islands Developing States"[4253] as organized to collect input from diverse stakeholders regarding AI policy topics. About 8-9% of the stakeholder participants were from Trinidad and Tobago.[4254] In April 2021, three additional workshops addressing the AI Policy Roadmap

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[4248] Inter-American Development Bank, *IDB approves New Country Strategy for Trinidad and Tobago Digital Transformation* (March. 23, 2022), https://www.iadb.org/en/news/idb-approves-new-country-strategy-trinidad-and-tobago-digital-transformation

[4249] UNESCO, *Cluster Office of the Caribbean*, https://en.unesco.org/caribbean-artificial-intelligence-initiative

[4250] UNESCO, *Cluster Office of the Caribbean*, https://en.unesco.org/caribbean-artificial-intelligence-initiative

[4251] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

[4252] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), p. 2, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

[4253] UNESCO, *How can AI contribute to sustainable development? Caribbean Artificial Intelligence Forum* (Feb. 18, 2021), https://en.unesco.org/news/how-can-ai-contribute-sustainable-development-caribbean-artificial-intelligence-forum

[4254] UNESCO, *How can AI contribute to sustainable development? Caribbean Artificial Intelligence Forum* (Feb. 18, 2021), https://en.unesco.org/news/how-can-ai-contribute-sustainable-development-caribbean-artificial-intelligence-forum

principles were held with stakeholders from the private sector, academia, civil society and youth.[4255]

The Caribbean AI Policy Roadmap acknowledges that "AI systems raise new types of ethical issues that include, but are not limited to, their impact on decision-making in employment and labour, social interaction, health care, education, media, freedom of expression, access to information, privacy, democracy, discrimination, and weaponization. Furthermore, new ethical challenges are created by the potential of AI algorithms to reproduce biases, for instance regarding gender, ethnicity, and age, and thus to exacerbate already existing forms of discrimination, identity prejudice and stereotyping. As Caribbean nations expand their adoption of AI tools and other exponential technologies, stakeholders (policymakers, citizens, private sector, academia, and NGOs) must proactively collaborate to create strategies for the humanistic development of guidelines, regulations and laws. Boundaries should be defined to regulate the AI decision-making, AI rights, inclusion of manual overrides and AI accountability protocols."

The Policy Roadmap has been developed based on a series of "assumptions" about the Caribbean and Artificial Intelligence. These include: "Human creativity is inextricably linked to Caribbean identify, economic viability and sustainable development"; "AI is a product of human creativity"; "AI is in service of humanity"; "AI must be inclusive, fair, transparent, accountable"; "AI must be regulated"; "Human rights supersede AI rights"; "Bias is everywhere in AI"; "We Are Our Data"; "Data rights will be the civil rights movement of the 21st century."[4256]

The Policy Roadmap is based on six principles: Resiliency, Governance, Transformation, Upskilling, Preservation and Sustainability.[4257] With regard to governance, actions to be taken include:

"Develop Responsible AI Governance, Oversight, Principles & Policies to Do No Harm and to enhance safety, security and accountability of AI.

Promote AI as a tool for service to humanity.

[4255] UNESCO, *Pioneering Artificial Intelligence Policy in the Caribbean* (Apr. 14, 2021), https://en.unesco.org/news/pioneering-artificial-intelligence-policy-caribbean

[4256] Caribbean Artificial Intelligence Initiative, *Caribbean AI Policy Roadmap* (2021), p. 5, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

[4257] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), p. 11, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

Establish common values and principles to ensure fairness, transparency and accountability in digital transformation and increased integration of AI algorithms.

Develop policy and legislation to enable the establishment of national and regional AI Governance Committees / Oversight Boards as well as national and regional licensing regime to manage and monitor the development of standards that govern the industry including technical code of conduct for developers, procurement guidelines for buyers, design and use principles and ethically aligned design standards.

Regulate AI industry to provide redress and punishment for individuals & companies that violate citizen rights and wellbeing including banning cyberbullying, hate crimes, discriminatory algorithms, disinformation and graphically violent images inclusive of penalties and fines.

Develop an AI Appeal Court and Online Dispute Resolution System.

Increase advocacy for AI ethics by targeting software developers at global forums and hosting a global software conference to network, lobby, share research and initiate collaborations with big tech.

Develop AI software to test AI for biases and identify AI applications in most need of governance. Protect citizen privacy and instill trust."[4258]

Public Participation

Following the release of the draft national digital transformation strategy, the Ministry of Digital Transformation sought public and stakeholder engagement. According to the Ministry, "co-creation and stakeholder engagement are key elements of the development of the National Digital Transformation Strategy. Contributions will be curated by four Technical Working Groups under the categories of Digital Society; Digital Economy; Digital Government; and Regional Integration and Global Linkages."[4259]

Vision 2030 has also been the object of public consultation.[4260]

[4258] Caribbean Artificial Intelligence Initiative, *Caribbean Artificial Intelligence Roadmap* (2021), p. 41, https://ai4caribbean.com/wp-content/uploads/2021/07/Caribbean-Artificial-Intelligence-Policy-Roadmap.pdf

[4259] Ministry of Digital Transformation, *Trinidad and Tobago Digital Transformation Strategy 2023-2026*,

[4260] Government of the Republic of Trinidad and Tobago, *Vision 2030* (2016), https://www.planning.gov.tt/sites/default/files/Vision%202030-%20The%20National%20Development%20Strategy%20of%20Trinidad%20and%20Tobago%202016-2030.pdf.

Data Protection

Trinidad and Tobago's Data Protection Act (DPA)[4261] was enacted in 2011 to protect personal data of citizens in the private and public sector but is only partly proclaimed. In January 2012, the following sections were proclaimed with Legal Notice: Preliminary Provisions; general objective of the Act; as well as the provisions concerning the Office of the Information Commissioner. [4262] In August 2021, two additional sections regarding the Protection of Personal Data by Public Bodies were proclaimed with Legal Notice.[4263] Most of the other provisions covering the protection of personal data by public and by private bodies of the Act are not yet in force. The Data Protection Act is also notably missing the right to erasure, the right to object or opt out of a consent, the right to data portability, and the right not to be subject to data processing decisions based solely on automated decision making.[4264]

In February 2023, the parliamentary opposition introduced a motion calling for the Government to fully proclaim the Data Protection Act. The Trinidad and Tobago Guardian reported that Senator Jearlean John stressed that "the PNM Government is keeping T&T in the Stone Age, failing to protect citizens' information by not fully proclaiming the Data Protection Act 2011. This is the situation at a time when people's lives are stored on phones, there's ChatGPT technology and the US Government has banned TikTok on government-issued devices following security concerns."[4265]

A draft bill, inspired by the GDPR "to be in greater compliance with more recent legislation in Jamaica and Barbados," was expected to be read in Parliament in 2022.[4266] This has however not yet happened.

[4261] Data Protection Act 2011,
https://rgd.legalaffairs.gov.tt/laws2/Alphabetical_List/lawspdfs/22.04.pdf
[4262]Republic of Trinidad and Tobago, *Legal Notice NO. 2* (Jan. 5, 2012),
http://news.gov.tt/sites/default/files/E-
Gazette/Gazette%202012/Legal%20Notice/Legal%20Notice%20No.%202%20of%20201
2.pdf
[4263]Government of Trinidad and Tobago, *Legal Notice NO. 220* (August. 20, 2021),
http://news.gov.tt/sites/default/files/E-
Gazette/Gazette%202021/Legal%20Notices/Legal%20Notice%20No.%20220%20of%20
2021.pdf
[4264] Ministry of the Attorney General and Legal Affairs, *Data Protection Act 2011*,
https://agla.gov.tt/downloads/laws/22.04.pdf
[4265] Trinidad & Tobago Guardian, *Jearlean John: PNM keeping T&T in Stone Age without data protection* (Feb. 28, 2023), https://guardian.co.tt/news/jearlean-john-pnm-keeping-tt-in-stone-age-without-data-protection-6.2.1645083.b26b8523a6
[4266] Mark Lyndersay, *What's happening with regional data protection legislation?* (May. 23, 2022), tnt&t, https://technewstt.com/bd1355-caribbean-data-protection/

Implementation of the DPA has also been delayed. Despite the Attorney General of Trinidad and Tobago announcing in the press in December 2020 that the position of the Information Commissioner "is expected to be filled with immediacy,"[4267] as of March 2023, there is "no office. There is no Information Commissioner."[4268] The Office of the Information Commissioner will be responsible for the oversight, interpretation and enforcement of the DPA.[4269]

Algorithmic Transparency

Although, transparency and explainability are mentioned in the Caribbean AI Policy Roadmap, as of March 2023, there is no right to algorithmic transparency provided by law in Trinidad and Tobago.

Online Disinformation

In January 2023, on the occasion its seventh summit, the Community of Latin American and Caribbean States (CELA), released the "Buenos Aires Declaration." Trinidad and Tobago endorsed the Declaration. The Declaration strengthens the signatories' commitment to safeguard the rights and interests of citizens, fostering greater regional integration and collaboration.[4270] The signatories also recognized the need for further integration and collaboration to fight against disinformation through the use of AI and algorithms, and their impact on state infrastructures, firms and people's well-being.[4271]

[4267] Clint Chan Tack, *AG: Changes coming to data protection laws*, Trinidad and Tobago Newsday (Dec. 1, 2020), https://newsday.co.tt/2020/12/01/ag-changes-coming-to-data-protection-laws/

[4268] Mark Lyndersay, *What's happening with regional data protection legislation?*, (May. 23, 2022), tnt&t, https://technewstt.com/bd1355-caribbean-data-protection/

[4269] Mark Lyndersay, *What's happening with regional data protection legislation?*, (May. 23, 2022), tnt&t, https://technewstt.com/bd1355-caribbean-data-protection/

[4270] ELAC Summit, *Declaration of Buenos Aires Ministry of Foreign Affairs, International Trade and Worship* (Jan. 24, 2023), https://www.cancilleria.gob.ar/userfiles/prensa/declaracion_de_buenos_aires_-_version_final.pdf

[4271] ELAC Summit, *Declaration of Buenos Aires Ministry of Foreign Affairs, International Trade and Worship* (Jan. 24, 2023), https://www.cancilleria.gob.ar/userfiles/prensa/declaracion_de_buenos_aires_-_version_final.pdf

Digital ID Initiative

In its post-COVID recovery plan, the government of Trinidad and Tobago stresses the importance of a digital society.[4272] The plan includes the goal of a cashless society and the creation of an e-identity for every citizen. The e-identity will be mandatory for using governmental services and aims at integrating existing identifiers. In effect, the e-identity will be used for government services as well as digital commerce. The e-identity should also address the digital divide between different social groups.[4273]

In March 2021, the CEO of IGovTT pointed out that the introduction of a digital identity is high on the agenda of the Trinidad and Tobago government. He stated, "[t]he digital ID initiative will take us further – and faster – along the digital transformation journey, and it will really support this whole notion of autonomous citizen services."[4274]

Facial Recognition

In November 2022, the Prime Minister of Trinidad and Tobago, Keith Rowley, stated that "the Government was spending $80Million to acquire and install 2500 CCTV cameras across the country." A few days later, the Acting Police Commissioner announced that facial recognition software to detect and prevent crime will soon be used. There is currently no legal framework in Trinidad and Tobago regarding the use of facial recognition no guidelines made public to prevent racial profiling/biases, algorithmic transparency, or for opportunity for public comments.[4275]

Lethal Autonomous Weapons

In October 2022, 70 countries endorsed a joint statement on autonomous weapons systems at the UN General Assembly meeting. In this joint statement, States urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices,

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[4272] Ministry of Planning and Development Trinidad and Tobago, *Roadmap for Trinidad and Tobago* (July 2020), https://planning.gov.tt/content/report-roadmap-recovery-committee-july-2020

[4273] Ministry of Planning and Development Trinidad and Tobago, *Roadmap for Trinidad and Tobago* (July 2020), https://planning.gov.tt/content/report-roadmap-recovery-committee-july-2020

[4274] Government of Trinidad and Tobago, *Driving the digital transformation in Trinidad and Tobago* (March 2021), I-CIO, http://www.news.gov.tt/content/appointment-minister-digital-transformation#.YlDvCNPMJ25

[4275] Sharlene Rampersad, *Ag. CoP: Facial recognition to fight crime coming soon*, Trinidad & Tobago Guardian (Nov. 11, 2022), https://guardian.co.tt/news/ag-cop-facial-recognition-to-fight-crime-coming-soon-6.2.1565456.ad6427e451

limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[4276] Trinidad and Tobago was not one of these states.

In February 2023, Trinidad and Tobago endorsed, along with more than 30 other Latin American and Caribbean states, the Belén Communiqué,[4277] which calls for "urgent negotiation" of a binding international treaty to regulate and prohibit the use of autonomous weapons to address the grave concerns raised by removing human control from the use of force. On this occasion, Trinidad and Tobago issued a statement acknowledging "that new and emerging technologies hold great promise for the advancement of human welfare, yet it is becoming increasingly evident that the introduction of new technological applications, such as those related to autonomy in weapon systems, raise serious concerns from humanitarian, legal, security, technological and ethical perspectives. The risk is real. It has not yet been demonstrated that any algorithm can reliably make the human-like decisions and judgments required to comply with international law."[4278]

Human Rights

Trinidad and Tobago receives a score of 82/100 by Freedom House and is thus classified as "Free."[4279] The country has a functioning parliamentary democracy, with an active and free civil society. At the same time, corruption and criminal violence remain an issue.[4280]

[4276] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77ᵗʰ United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf

[4277] *Communiqué of the Latin American and the Caribbean Conference of Social and Humanitarian Impact of Autonomous Weapons* (Feb. 24, 2023), https://www.rree.go.cr/files/includes/files.php?id=2261&tipo=documentos

[4278] Regional Conference on Latin America and the Caribbean States on the Social and Humanitarian Impact of Autonomous Weapons, *Trinidad and Tobago Statement* (Feb, 2023), https://conferenciaawscostarica2023.com/wp-content/uploads/2023/02/Trinidad-and-Tobago-statement-Regional-Conference.pdf .

[4279] Freedom House, *Freedom in the World – Trinidad and Tobago* (2022), https://freedomhouse.org/country/trinidad-and-tobago/freedom-world/2022.

[4280] Freedom House, *Freedom in the World – Trinidad and Tobago* (2021), https://freedomhouse.org/country/trinidad-and-tobago/freedom-world/2021.

OECD / G20 AI Principles

Trinidad and Tobago has not endorsed the OECD AI principles.[4281] According to OECD AI Principle 2.5 regarding international co-operation for trustworthy AI, "Governments, including developing countries and with stakeholders, should actively cooperate to advance these principles and to progress on responsible stewardship of trustworthy AI. Governments should work together in the OECD and other global and regional fora to foster the sharing of AI knowledge, as appropriate." The OECD acknowledges the work of the Inter-American Development and its ""fAIr LAC" initiative to promote the responsible and ethical use of AI and improve the public services e.g., education, health, and social protection, in Latin American and Caribbean (LAC) countries,"[4282] which includes Trinidad and Tobago.

In 2022, the OECD, in partnership with the Development Bank of Latin America (CAF) also published a report on "The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean" including Trinidad and Tobago.

UNESCO Recommendation on the Ethics of Artificial Intelligence

Trinidad and Tobago is a member state of UNESCO.[4283] Trinidad and Tobago endorsed the UNESCO Recommendations on AI Ethics[4284]. The CAF and UNESCO signed a letter of intent to implement the Recommendation in Latin America and the Caribbean and support the establishment of a Regional Council which incorporates all governments of the region.[4285] There is so far no official announcement regarding the involvement of Trinidad and Tobago.

[4281] OECD, *Recommendations of the council on Artificial Intelligence* (May. 21, 2019), https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449.

[4282] OECD, *State of implementation of the OECD AI Principles* (June 2021), p. 76, https://www.oecd-ilibrary.org/docserver/1cd40c44-en.pdf?expires=1679145707&id=id&accname=guest&checksum=4A7E8011553F4B626AD9EF4C04ACCDE1.

[4283] UNESCO Member States, https://pax.unesco.org/countries/ListeMS.html.

[4284] United Nations, *193 countries adopt first-ever global agreement on the Ethics of Artificial Intelligence* (Nov. 25, 2021), https://news.un.org/en/story/2021/11/1106612.

[4285] UNESCO, *CAF and UNESCO will create a council to review ethical criteria for artificial intelligence in Latin America and Caribbean* (June. 23, 2022), https://www.unesco.org/en/articles/caf-and-unesco-will-create-council-review-ethical-criteria-artificial-intelligence-latin-america-and.

Evaluation

Trinidad and Tobago has endorsed the UNESCO Recommendation on the ethics of AI and regional cooperation with other Caribbean or Latin American might help foster its implementation in the future. At national level, Trinidad and Tobago has developed a national digital tragedy, however it has not turned its attention to artificial intelligence yet. Likewise, its 2012 Data Protection Act has not fully been enacted – most importantly regarding data subjects' rights –, it would need to be updated – rights such as algorithmic transparency are not provided for –, and even some enacted provisions have not been implemented – there is currently no Information Commissioner Office in Trinidad and Tobago. Concerns exist regarding Trinidad and Tobago's ability to protect fundamental rights in the AI era. Initiatives such as the development of an e-identity or the use of facial recognition technology for crime prevention and detection are, without proper legal framework and oversight mechanism, of particular concern.

Tunisia

National AI Strategy

Tunisia's path towards the establishment of a National AI Strategy started in 2018 when the Minister of Higher Education in partnership with the National Agency for the Promotion of Scientific Research (ANPR) produced a five-year AI development plan for Tunisia (2016-2020). The ANPR set up a Task Force to provide oversight of the project and a Steering Committee to define a methodology and action plan.[4286] This was further discussed during workshops organized by the UNESCO Chair on Science, Technology and Innovation Policy.[4287]

Tunisian's political instability curtailed the plans to move the initiative forward.[4288] In 2019, the Ministry of Industry led the development of new 5-year AI roadmap with the following aims:[4289]

- Raise awareness of the real challenges and possibilities of AI
- Strengthen the ecosystem to develop AI by addressing the main pillars of AI
- Implement AI pilot projects in public and private sectors, and
- Adopt a national AI action plan 2021-2025.

The Ministry of Industry, Mines and Energy (MIEM) and the National Institute of Normalization and Intellectual Property also drafted a bill to protect the Intellectual Property of Algorithms.[4290]

In February 2022, the Ministries of Communication Technologies, Energy and Mines, Economics & Planning, and Higher Education & Scientific Research signed a memorandum aiming to define the general orientations of the national artificial intelligence strategy and to follow up on the results of a study planned for this purpose.[4291]

[4286] Agence Nationale de la promotion de la Recherche scientifique (ANPR), *Unlocking Tunisia's capabilities potential* (2017), http://www.anpr.tn/national-ai-strategy-unlocking-tunisias-capabilities-potential

[4287] Tim Dutton, *Artificial Intelligence Strategies* (Jun. 28, 2018), https://medium.com/politics-ai/an-overview-of-national-ai-strategies-2a70ec6edfd

[4288] UNESCO, *Mapping of the ecosystem of artificial intelligence* (Dec. 2020), https://fr.unesco.org/sites/default/files/20210526mappingecosystemeiadsmaghreb.pdf

[4289] OECD AI Policy Observatory, *Tunisia Artificial intelligence Roadmap*, (March 2022), https://oecd.ai/en/dashboards/policy-

[4290] OECD.AI, *Intellectual Property for AI* (2021), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27133

[4291] Kapitalis, *Tunisia Toward a national AI Strategy* (Feb. 2022), http://kapitalis.com/tunisie/2022/02/20/tunisie-vers-lelaboration-de-la-strategie-nationale-de-lintelligence-artificielle/

As a member of the African Union, Tunisia is committed to working towards the alignment of the country's efforts with the vision of the Union to build a continental digital transformation strategy[4292] and a continental AI strategy.[4293]

Public Participation

The Tunisian government does not have a systematic public participation process to develop policies, in general, or AI policies in particular. Discussions took place among the task forces and steering committees designated by the Tunisian government. Since September 2021, The Future Society (TFS) and GIZ Digital Transformation Center Tunisia have also supported a multi-stakeholder process to develop Tunisia's National AI Strategy with the Tunisian government, more specifically the Ministry of Communication Technologies, the Ministry of Economy and Planning, the Ministry of Higher Education and Scientific Research, and the Ministry of Industry, Mines, and Energy. According to TSF, «The project's goal is to capitalize on Tunisia's strengths in AI in order to support economic growth, promote social inclusion, and ensure better service to citizens.» This project emphasizes the Tunisia Government's efforts to consult with civil society and different stakeholders in the drafting process.[4294]

Notwithstanding the various initiatives put forth by the Tunisian government to establish a national AI policy, not all the documents are available on the government's official websites. Only the Organic Act No. 2004-63 for Personal Data Protection is available online.[4295]

The first ever political consultation took place in January 2022 on the matter of the referendum to revise the constitution. The government set the website E-Istichara (e-consultation) as the repository of public input.[4296]The initiative had mixed reviews, due to the requirement of a

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[4292] African Union, *The Digital Transformation Strategy for Africa, (2020-2030),* https://au.int/sites/default/files/documents/38507-doc-dts-english.pdf

[4293] AUDA-NEPAD, *The African Union Artificial Intelligence Continental Strategy For Africa* (May 20, 2022), https://www.nepad.org/news/african-union-artificial-intelligence-continental-strategy-africa

[4294] The Future Society, *Stakeholder consultation workshops drive insights for National AI Strategies in Tunisia and Ghana* (June 9, 2022), https://thefuturesociety.org/stakeholder-consultation-workshops-drive-insights-for-national-ai-strategies-in-tunisia-and-ghana/

[4295] *Organic Act n°2004-63 on the Protection of Personal data* (July 2004), https://media2.mofo.com/documents/The+Organic+Act+2004-63.pdf

[4296] Tarak Guizani, *Tunisia's controversial first online political consultation* (Jan. 12, 2022), https://www.dw.com/en/tunisias-first-digital-political-consultation-divides/a-60390183

national identity number and a validation code sent to mobile phones. While E-Istichara is presented as a portal for citizens to express their opinions, under the motto "your opinion, our decision," reservations were evident about the degree of inclusiveness and privacy of the platform.[4297] The operation of E-Istichara is under the National Center for Informatics, the Ministry of Communication Technologies, and the Ministry of Youth and Sports.[4298]

The OECD offered guidance and technical assistance to support the Tunisian government in improving public participation and creating citizen charters for public projects in three municipalities.[4299] Earlier in 2016, the OECD worked with Tunisia to create a citizen dialogue platform, activating working groups to promote stakeholder participation. The enactment of the Access to Information (ATI) Law of 2016, led to the publication of the Access to Information Guide for public officials, adopted by over 600 public institutions in Tunisia, to promote the participation of civil society, government, and ATI stakeholders in matters of public governance.

In August 2020, the UNESCO Maghreb office, the Ministry of Industry and SMEs organized a reflection workshop entitled "Inclusive Dialogue on the Ethics of AI" to draft international recommendations and establish a normative instrument on the ethics of AI.[4300] The event was attended by Tunisian AI experts, such as start-ups, university researchers, and public officials. The Ministry of Communication Technology launched a platform for citizen participation, including submission of complaints, ideation forum, and access to open data and government documents.[4301]

In 2021, the Ministry of Interior called for a public consultation on a new national ID and biometric database, yet the results of the process are not public. In the most recent UN e-Government Survey of 2022, Tunisia ranked 88th out of 193 countries in the world in e-participation, and among

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[4297] Bedirhan Mutlu, *Tunisia's e-consultation process is another pretence for Saied's power grab* (Mar 4, 2022), https://www.trtworld.com/opinion/tunisia-s-e-consultation-process-is-another-pretence-for-saied-s-power-grab-55131

[4298] All Africa, T*unisia: Online Platform E-Istichara.tn, Operational from January 15* (Jan. 14, 2022), https://allafrica.com/stories/202201170221.html

[4299] OECD, *Good Governance and Anti-Corruption in Tunisia- Highlights,* (Sept. 2019), https://www.oecd.org/mena/governance/good-governance-and-anti-corruption-in-tunisia-highlights-en.pdf

[4300] OECD.AI, *Tunisia Dashboard*, https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27126

[4301] Republique Tunisienne, *Portail du Gouvernement Tunisien* (2023), http://fr.tunisie.gov.tn/

the top 5 African countries, in terms of the e-Government development index (EGDI).[4302]

Data Protection

The protection of personal data was included in the review of the Tunisian constitution of 1959 in 2002, with Article 9, mentioning: "protection of personal data shall be guaranteed, save in exceptional cases prescribed by law."[4303] The Constitution of 2014 expanded the rights to data protection by including Article 24 about Privacy and Personal Data[4304] which provides that "the state protects the right to privacy and the inviolability of the home, and the confidentiality of correspondence, communications, and personal information." Following a referendum, Tunisia created a new Constitution of 2022 that maintains protection of the right to privacy (Art 30), endorsing Law No. 2004-63, to protect the rights and freedoms of Tunisians.

In 2004, the Ministry of Justice established a legal framework for data protection rights that later led to the enactment of the Organic Act no. 2004-63 of July 27th 2004 on the Protection of Personal Data.[4305] The National Authority for Protection of Personal Data (INPDP) was created that same year, later renamed National Personal Data Authority. This entity is deemed an independent oversight body for data protection. The Data Protection Authority was accredited to join the Global Privacy Assembly (GPA) during the 34th Session of the GPA held in 2012 in Uruguay.[4306] Tunisia has not endorsed the GPA 2018 Declaration on Ethics and Data Protection,[4307] the GPA 2020 Resolution on Accountability in the

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[4302] United Nations, *E-government Survey 2022, The future of Digital Government,* (2022), https://desapublications.un.org/sites/default/files/publications/2022-09/Web%20version%20E-Government%202022.pdf

[4303] Centre for Internet and Human Rights, *Policy Analysis of Data Protection in Tunisia-A Legal Illusion,* https://cihr.eu/policy-analysis-data-protection-in-tunisia-a-legal-illusion/#:~:text=Following%20the%20fall%20of%20Ben,the%20right%20to%20data%20protection

[4304] National Authority for Protection of Personal Data (INPDP), *History of Personal Data Protection in Tunisia,* https://www.inpdp.tn/Diapositive1.JPG

[4305] National Authority for Protection of Personal Data (INPDP), *Organic Law No. 63 of 2004* (Jul. 27, 2004), www.inpdp.nat.tn

[4306] Global Privacy Assembly, *Resolution on Accreditation* (2012), https://globalprivacyassembly.org/wp-content/uploads/2015/02/2-Accreditation-Resolution-Uruguay.pdf

[4307] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-

Development and Use of AI[4308] and GPA 2022 Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology.[4309]

Under the authoritarian regime of Ben Ali, the National Agency for Data Protection (INPDP) did not operate as an independent body. After the Tunisian Jasmine Revolution of 2011, and under the Organic Act No. 2004-63, processors began to regularly declare their personal data processing activities.[4310]

The Data Protection Law of 2004 includes only certain provisions on transparency, related to notifications that data is being processed but it does not include provisions to notify the authority or data subjects in case of a data breach. In terms of accountability, there is no explicit provision for civil liability, but the Data Protection Authority is designated to investigate cases and a subpoena or require evidence, and impose penalties.[4311]   While the 2004 Organic Act is based on principles of lawfulness, processing, and accountability, the multiple exemptions to law enforcement, tribunals and universities, public entities, and employers weaken the protection of personal data. [4312]

The Ministry of Justice[4313] was expected to propose a review of the framework for the protection of personal data. The review project of the Law was under parliamentary scrutiny since 2017. However, in March 2018, a new legislative project has been introduced before the Tunisian Parliament. The new draft law on the Protection of Personal Data is aligned

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Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[4308] Global Privacy Assembly (GPA). *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020). https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[4309] International Conference of Data Protection & Privacy Commissioners. *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[4310] National Authority for Protection of Personal Data (INPDP), http://www.inpdp.nat.tn/Presentation.html

[4311] Data Protection Africa, *Data Protection Factsheet: Tunisia* (2023), https://dataprotection.africa/tunisia/

[4312] Centre for Internet and Human Rights, *Policy Analysis of Data Protection in Tunisia-A Legal Illusion,* https://cihr.eu/policy-analysis-data-protection-in-tunisia-a-legal-illusion/#:~:text=Following%20the%20fall%20of%20Ben,the%20right%20to%20data%20protection.

[4313] Ministry of Justice, *Site,* https://www.justice.gov.tn/index.php?id=2

with the GDPR.[4314]Tunisia's general data protection regime strongly seeks to align with that of the EU. Negotiations in 2015 between Tunisia and the EU in the framework of the Deep and Comprehensive Free Trade Area, increased Tunisia government's awareness of the need for alignment.

Tunisia ratified the Council of Europe Convention 108 "Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data" in 2015.[4315] Basic Law No. 2017/33 on the Approval of the Accession of the Republic of Tunisia to Convention 108 and its additional protocol was passed by the Parliament on 16 May 2017,[4316] and published in the Official Gazette of the Republic of Tunisia on 6 June 2017.

Tunisia has signed the Protocol amending the Convention for the Protection of Individuals about Automatic Processing of Personal Data (Convention 108+) but has not ratified it yet.

In 2019, Tunisia also signed the African Union (AU) Convention on Cyber Security (Malabo Convention).[4317] However, the country has not ratified the Convention yet.[4318] The Convention emphasizes that each country is to develop its legislative framework, observing the African Charter on Human and People's Rights. Tunisia is yet to take the necessary steps to create cybersecurity laws in the country in line with the Convention.[4319]

Algorithmic Transparency

Since Tunisia has not ratified Convention 108+ yet, there is currently no right to algorithmic transparency in Tunisia. The Law of Protection of Personal Data does not include articles that address the right

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[4314] DLA Piper, *Data Protection Laws of the World – Tunisia* (Jan. 10, 2023), https://www.dlapiperdataprotection.com/index.html?t=law&c=TN

[4315] Council of Europe, *Modernised Convention for the Protection of Individuals with Regard to the Processing of Personal Data* (May 18, 2018) https://www.coe.int/en/web/data-protection/convention108-and-protocol

[4316] Council of Europe, *Details of Treaty No. 108,* https://www.coe.int/en/web/conventions/full-list?module=treaty-detail&treatynum=108

[4317] African Union. *African Union Convention on Cybersecurity (Malabo Convention)* (Jun. 27, 2014), https://au.int/en/treaties/african-union-convention-cyber-security-and-personal-data-protection

[4318] African Union. *List of Countries which have signed, ratified/acceded to the African Union Convention on Cyber Security and Personal Data Protection* (Mar. 25, 2022). https://au.int/sites/default/files/treaties/29560-sl-AFRICAN_UNION_CONVENTION_ON_CYBER_SECURITY_AND_PERSONAL_DATA_PROTECTION.pdf

[4319] CCDCOE. *Mixed Feedback on the 'African Union Convention on Cyber Security and Personal Data Protection',* https://ccdcoe.org/incyder-articles/mixed-feedback-on-the-african-union-convention-on-cyber-security-and-personal-data-protection/

not to be subject to automated decision-making or algorithmic transparency more particularly.[4320]

The Ministry of Finance of Tunisia has plans to apply AI in several applications, including fraud analysis and risk management.[4321] The goal of the ministry is to use algorithms to sort through data that supports a more open government, including making the algorithms available for public review.

AI Projects in the Public Sector

The ecosystem of AI innovation is in the nascent stages in Tunisia. A report by UNESCO mapping the AI ecosystem of the Maghreb countries (Tunisia, Morocco, and Algeria), included government initiatives to support AI startups.[4322] The Smart Tunisia Program was launched through a Public-Private-Partnership to create 50,000 jobs in the digital sector.[4323] The Program offers multiple opportunities for the promotion of entrepreneurship and investment in digital start-ups, though cooperation with different Tunisian bodies.

As of 2020, the government has launched AI public projects in the public sector, through the Directorate of Innovation and Technology Development::

- Project 1 | Fraud detection: set to establish a model predictive for fraud detection electricity in the STEG network
- Project 2 | Voice transcription: intended to transcribe the deliberations of the members of parliament
- Project 3 | Image recognition: set to identify the degree of respect for wearing "masks" in public spaces
- Project 4 | Industry chatbot: a chatbot set to inform the citizen and companies on the procedures and funding mechanisms Le programme de mise à niveau (PMN), Agency for promotion of Industry and Innovation (APII), Programme National de la Recherche et de l'Innovation

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[4320] Data Protection Africa, *Data Protection Factsheet: Tunisia* (2023), https://dataprotection.africa/tunisia/

[4321] Global Information Society Watch, *An Artificial Intelligence Revolution in public finance management in Tunisia* (2019), https://giswatch.org/node/6192

[4322] UNESCO, *Maghreb, Mapping de l'ecosysteme de l'intelligence artificielle* (Dec. 2020), https://fr.unesco.org/sites/default/files/20210526mappingecosystemeiadsmaghreb.pdf

[4323] Smart Tunisia, *Tunisia among the most competitive hubs in MEA* (2023), http://www.smarttunisia.tn/

(PNRI)
- Project 5 | Chatbot 3ziza: a chatbot set to answer questions about events linked to the new Covid19 virus; programmed to simulate a conversation in Tunisian dialect
- Project 6 | Covid-19 screening: intended to diagnose instantly the coronavirus from X-rays of the lungs

International cooperation supports the Tunisian initiatives in the AI landscape. The FIRST program (Fiscal Reform for a Strong Tunisia) is an initiative of the United States Agency for International Development (USAID) to support the government of Tunisia through the Ministry of Finance, in matters of tax policy and fiscal reforms. The project relies on an AI algorithm and general algebraic modeling system (GAMS) software to analyze data as input to policy decisions.[4324]

Tunisia received a score of B (or 'high') for its digital government transformation by the World Bank's GovTech Maturity Index (GTMI) for 2022.[4325] The index evaluates core government system indexes, public service delivery, digital citizen engagement, and gov tech enablers in the country.

Biometric ID

Tunisia is the only country in Africa without a biometric database, amid the enactment of the 2004 Organic Act on Personal Data Protection.[4326] One such attempt took place in 2016 when the Ministry of Interior presented a draft Bill that included plans for national IDs and centralized biometric databases. Debates in the parliament and pressure from civil society in the media forced the Minister to withdraw the proposed bill in 2018. Elections in Tunisia do not rely on biometric voter databases.[4327]

[4324] US Embassy, *Fiscal Reform for a Strong Tunisia First,* https://tn.usembassy.gov/embassy/tunis/usaid-tunisia/economic-growth/fiscal-reform-for-a-strong-tunisia-first/

[4325] World Bank, *State of GovTEch Maturity by GTMI Groups 2022,* *https://www.worldbank.org/en/data/interactive/2022/10/21/govtech-maturity-index-gtmi-data-dashboard*

[4326] Algorithm Watch, *Identity Management and Citizen Scoring in Ghana, Rwanda, Tunisia, Uganda, Zimbabwe and China* (Oct. 19, 2019), https://algorithmwatch.org/en/wp-content/uploads/2019/10/Identity-management-and-citizen-scoring-in-Ghana-Rwanda-Tunesia-Uganda-Zimbabwe-and-China-report-by-AlgorithmWatch-2019.pdf

[4327] Ibid.

In January 2022, the Ministry of Interior announced the resubmission of the biometric ID bill, making it compulsory for all citizens over the age 18. The Ministry has justified the requirement as necessary to avoid replication or forgery, but has failed to present the safeguards to protect the privacy of individuals.[4328] In this new cycle, the Ministry of Interior plans to also roll out a biometric passport to meet the requirements of the International Civil Aviation Organization. The implementation of the biometric ID bill has been deemed a threat to privacy and a step back in the plans to comply and align with the commitments made by Tunisia at the CoE Convention 108.

Facial Recognition

Reports of practices of mass surveillance in Tunisia are closely linked to the history of authoritarian regimes and the suppression of political opposition.[4329] Following the Jasmine Revolution of 2011, the new government dismantled intelligence services and created new ones. In 2015, the Tunisian government declared a state of emergency as the result of a terrorist attack and in 2016 announced the installation of more than 1,000 surveillance cameras in 30 electronic checkpoints in Tunis and at least four cities.

Practices of surveillance in public spaces and the use of facial recognition are of concern in Tunisia. A report by Privacy International identified practices of surveillance in public spaces, under the pretense of enforcement of the COVID lockdown.[4330] The Ministry of Interior of Tunisia operated a robot to patrol the streets and require to show ID documentation to the camera. The PGuard robot was equipped with infrared and thermal imaging cameras to question 'suspected violators' of the lockdown.[4331] These robots were donated to the Ministry and were valued at US$100-140K.

[4328] AccessNow, *Biometric ID in Tunisia: a threat to privacy and data protection* (Apr. 13, 2022), https://www.accessnow.org/biometric-id-tunisia/

[4329] Privacy International, *State Surveillance- Tunisia* (2023), https://privacyinternational.org/state-privacy/1012/state-surveillance-tunisia

[4330] Privacy International (PI). *Under Surveillance: (Mis)use of Technologies in Emergency Reponses. Global lessons from the COVID-19 pandemic* (Dec. 2022). https://privacyinternational.org/report/5003/under-surveillance-misuse-technologies-emergency-responses-global-lessons-covid-19

[4331] AFP, *Tunisia 'robocop' enforces coronavirus lockdown,* (Apr. 5, 2020), https://www.thenationalnews.com/world/mena/tunisia-robocop-enforces-coronavirus-lockdown-1.1001263

Smart Cities

The concept of Smart Cities is in the early stages in Tunisia, promoted by the Tunisian Smart Cities Association (TSC) in cooperation with the General Public-Private Partnership Authority (IGPPP) and the Fund Deposits and Consignment (CDC).[4332] The initiative has the participation of more than 260 partners from the public, private sector, and civil society, discussing in working groups to build a three-year plan. No reports exist about the progress of this initiative or the cooperation with multi-lateral entities, such as UNDP.

Lethal Autonomous Weapons

Tunisia is a UN Member State and High Contracting Party to the Convention on Certain Conventional Weapons (CCW)[4333] and has participated in several meetings since 2015.[4334] Tunisia is not part of the 30 states of the Africa Group that have called for a ban on lethal autonomous weapons.[4335]

Tunisia support the negotiation of e legally-binding instrument on autonomous weapons systems. In 2018, Tunisia made an individual statement and stated, "faced with the development of new autonomous weapons systems, Tunisia calls for the regulation of the use of artificial intelligence for military purposes."[4336] Tunisia is a member of three groups that support the negotiation of a legally-binding instrument on autonomous weapons systems: The African Group and the Arab Group within the United Nations and the Non-Aligned Movement. The African Group called on a reflection on the "ethical, legal, moral and technical questions" raised by the use of autonomous weapons systems and urged for concrete policy recommendations, including prohibitions and regulations to be adopted.[4337]

[4332] Meriem Khdimallah, *Smart City: Let's go for the implementation of the Tunisian Smart Cities Program* (Apr. 3, 2021), https://lapresse.tn/92965/ville-intelligente-cest-parti-pour-limplementation-du-programme-tunisian-smart-cities/

[4333] United Nations, *High Contracting Parties and Signatories CCW*, https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/high-contracting-parties-and-signatories-ccw/

[4334] Automated Research, *State Positions: Tunisia* (2023), https://automatedresearch.org/news/state_position/tunisia/

[4335] Diplo Foundation, *Africa's Participation in International Processes related to AI* (2021), https://www.diplomacy.edu/resource/r eport-stronger-digital-voices-from-africa/africa-participation-international-processes-ai/

[4336] Statement by Tunisia, *UN General Assembly First Committee* (Oct. 17, 2018), https://media.un.org/en/asset/k1u/k1ufkkgcl4

[4337] Statement by the African Group, CCW Group of Governmental Experts meeting on LAWS (Dec. 3, 2021), http://149.202.215.129:8080/s2t/UNOG/LAWS3-03-12-2021-AM_mp3_en.html

In February 2023, Tunisia participated in an international summit on the responsible application of artificial intelligence in the military domain hosted by the Netherlands. At the end of the Summit, Tunisia, together with other countries, agreed on a joint call for action on the responsible development, deployment and use of artificial intelligence in the military domain.[4338] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[4339]

Human Rights

Freedom House scored Tunisia as a partly-free country (64/100) in 2022.[4340] Freedom House reported, "Tunisia's social and economic crisis continued to worsen during the year, with food insecurity linked to the Russian invasion of Ukraine adding to the hardships faced by much of the population." Tunisia scored 61/100 for net freedom and 19/40 on violations of users' rights. [4341] The Ibrahim Index of African Governance in 2021 scored Tunisia at 70.9/100 for overall governance, and 70.2/100 in

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[4338] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023) Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

[4339] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[4340] Freedom House, *Freedom in the World: Tunisia* (2022), https://freedomhouse.org/country/tunisia/freedom-world/2022

[4341] Freedom House, *Freedom On the Net Report* (2022), https://freedomhouse.org/country/saudi-arabia/freedom-net/2022

Participation Rights & Inclusion, placing the country in position 3 out of 45 African countries, with an increasing trend since 2012.[4342]

Tunisia endorsed the Universal Declaration of Human Rights (UDHR) and ratified the African Charter on Human and Peoples' Rights (African Charter). Tunisia is a member of the Arab League but has not ratified the Arab Charter on Human Rights.[4343] The country ratified various covenants including the International Convention on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICSECR).[4344] Other agreements Tunisia is a Party to are: The African Charter on the Rights and Welfare of the Child; the Convention on the Rights of the Child; the United Nations Convention against Transnational Organized Crime and the United Nations Convention Against Corruption.[4345]

Tunisia's transition to a democratic system was an imperative to guarantee human rights and respect for fundamental freedoms. The road to restore democracy has not been smooth, and required the drafting of a Tunisian constitution as a "social contract between state and citizens." [4346] The government promoted the new constitution as the foundation for a modern and democratic society that respects human freedom and aligns to the commitment to the international human rights system.

Nevertheless, human right organizations have continued to warn about the risks facing the future of human rights and democracy in Tunisia.[4347] The new 2014 Constitution shifted power from the parliament to the presidency, and won approval in a referendum later that month, with a voter turnout of roughly 31 percent.[4348] In July 2021, the government banned the Assembly of People's Representatives (ARP) from meeting and dismissed the Head of Government. Increasing travel bans affecting several

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[4342]Ibrahim Index of African Governance, *Tunisia 2021, Overall, Governance,* https://iiag.online/data.html?loc=RW&meas=GOVERNANCE

[4343] International Justice Resource Center, *Country Factsheet Series* (Sept. 15, 2017), ,https://ijrcenter.org/country-factsheets/

[4344] University of Minnesota, *Ratification of International Human Rights Treaties-Tunisia* (2023), http://hrlibrary.umn.edu/research/ratification-tunisia.html

[4345] International Justice Resource Center, *Country Factsheet Series* (Sept. 15, 2017), https://ijrcenter.org/country-factsheets/

[4346] Carnegie Middle East Center, *Beyond Tunisia's Constitution: The Devil in the Details* (Apr. 28, 2014), https://carnegie-mec.org/2014/04/28/beyond-tunisia-s-constitution-devil-in-details-pub-55398

[4347] Euromed Rights, What future for human rights and democracy (2021), https://euromedrights.org/publication/tunisia-what-future-for-human-rights-and-democracy/

[4348] Freedom House, *Freedom in the World: Tunisia (2023),* https://freedomhouse.org/country/tunisia/freedom-world/2023

segments of the population, house arrests, use of military courts to try civilians and hate speech spreading in the country were rising concerns. Restrictions to freedom of the press escalated with the announcement of the state of exception.[4349] The President of Tunisia issued a new electoral law by presidential decree, and the first round of elections for a new parliament was held in late December 2021. Amid an opposition boycott, voter turnout was extremely low at 11 percent. A second round of voting took place in January 2023 with a low turnout.[4350]

OECD / G20 AI Principles

Tunisia is not a member of the OECD or the G20 and has not endorsed the G20 or the OECD AI principles.[4351] The country has submitted reports to OECD AI Observatory, on AI use cases in the public sector, the law on the protection of personal data. and a draft bill on intellectual property policy for AI to protect algorithms. This initiative addresses three OECD AI principles of human-centered values and fairness, robustness, security, and safety and provides an enabling policy environment for AI.[4352]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Tunisia is a member state of UNESCO since 1956,[4353] and is one of 193 countries that endorsed the UNESCO Recommendation on AI Ethics in November 2021.[4354] Tunisia was also one of only five African nations that offered comments on the first draft of the Recommendation.[4355]

[4349] Euromed Rights. *'Reporting Under the Weight of Fear': Restrictions on the media in Tunisia under the president's exceptional measures* (July 25, 2021 – Apr. 15, 2022) https://euromedmonitor.org/en/article/5121/'Reporting-Under-the-Weight-of-Fear':-Restrictions-on-the-media-in-Tunisia-under-the-president's-exceptional-measures-(25-July-2021-%E2%80%93-15-April-2022)

[4350] Carter Center, *Post-election statement: Low turnout in Tunisia Election Reaffirms Need for Broad-Based Consensus,* (Feb. 1, 2023), https://www.cartercenter.org/news/pr/2023/tunisia-020123.html

[4351] OECD, *Forty-two countries adopt new OECD Principles on Artificial intelligence* (May 22, 2019), https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[4352] OECD.AI , *Policy Observatory, AI in Tunisia* (2002), https://oecd.ai/en/dashboards/countries/Tunisia

[4353] UNESCO, *Tunisia* (2023), https://www.unesco.org/en/countries/tn

[4354] UNESCO, *UNESCO Member States Adopt the First Ever Global Agreement on the Ethics of Artificial Intelligence* (Apr. 21, 2022), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence

[4355] DiploFoundation, *Africa's Participation in International Processes related to AI* (2021), https://www.diplomacy.edu/resource/r eport-stronger-digital-voices-from-africa/africa-participation-international-processes-ai/

However, the 2021 UNESCO AI Needs Assessment Survey did not include responses from Tunisia.[4356]

Evaluation

Although Tunisia has yet to formulate a National AI policy, the 2019 5-year AI roadmap is a starting point. Now that Tunisia has endorsed the UNESCO Recommendation on the Ethics of AI, the ratification of Council of Europe Convention 108+, together with a comprehensive modernization of the country's data protection legal regime, would further contribute to strengthen the protection of human rights in the digital age as concerns regarding AI-powered mass surveillance persist.

[4356] UNESCO, *Artificial intelligence needs assessment survey in Africa* (2021), https://unesdoc.unesco.org/ark:/48223/pf0000375322

Türkiye

National AI Strategy

        In 2020, the Digital Transformation Office (DTO) of the Turkish government outlined a National Artificial Intelligence Strategy.[4357] The goal is to "promote the effective use of big data and artificial intelligence in public sector, through a human-centered approach (…) in collaboration with universities, the private sector and NGOs. The strategy is meant to address fundamental principles such as human-centered development, fairness, transparency, trustworthiness, accountability, and commitment to ethical values. An intended output of the Strategy is also to increase nationwide awareness on data sharing and privacy and AI applications. The Strategy will contribute to implementing the G20 AI Principles, especially on human-centered values and fairness. In 2020, during the preparation of the national AI strategy, Ali Taha Koç, the President of the DTO, acknowledged the importance of transparency, security, and accountability for AI. He stated that "[t]o eliminate the concerns that may arise, this system must first be human-centered, it must be fair, it must increase social welfare, it must be transparent, reliable, accountable, value-based, and dependent on national and ethical values."[4358]

        In August 2021, the Turkish government published the National Artificial Intelligence Strategy 2021-2025.[4359] The Strategy was prepared, in accordance with the Eleventh Development Plan[4360] and Presidential Annual Programs,[4361] and in line with the Digital Türkiye vision and the National Technology Initiative.[4362] The Strategy is based on six strategic priorities:

    1) Training AI Experts and Increasing Employment in the Domain

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[4357] Digital Transformation Office of the Presidency of the Republic of Türkiye, *Artificial Intelligence*, https://cbddo.gov.tr/en/artificial-intelligence

[4358] Şule Guner, *Experts to map out Turkey's strategy on AI centered on ethics and data protection,* Daily Sabah (Mar. 4, 2020), https://www.dailysabah.com/life/experts-to-map-out-turkeys-strategy-on-ai-centered-on-ethics-and-data-protection/news

[4359] Digital Transformation Office of the Presidency of the Republic of Türkiye, *National Artificial Intelligence Strategy 2021-2025* (Aug. 20, 2021), https://cbddo.gov.tr/en/nais

[4360] Presidency of the Republic of Türkiye, Presidency of Strategy and Budget, *Eleventh Development Plan (2019-2023)* (July. 18, 2019*)*, pp. 84-85 https://www.sbb.gov.tr/wp-content/uploads/2022/07/Eleventh_Development_Plan_2019-2023.pdf

[4361] Presidency of the Republic of Türkiye, Presidency of Strategy and Budget, *Presidential Annual Program (2020)* (Nov. 3, 2019), p. 218, https://www.sbb.gov.tr/wp-content/uploads/2019/11/2020_Yili_Cumhurbaskanligi_Yillik_Programi.pdf

[4362] Digital Transformation Office of the Presidency of the Republic of Türkiye, *National Artificial Intelligence Strategy 2021-2025* (Aug. 20, 2021), https://cbddo.gov.tr/en/nais

2) Supporting Research, Entrepreneurship and Innovation
3) Facilitating Access to Quality Data and Technical Infrastructure
4) Regulating to Accelerate Socioeconomic Adaptation
5) Strengthening International Cooperation
6) Accelerating Structural and Labor Transformation.

The National Strategy sets out the following AI values and principles to guide implementation:

- Respect for Human Rights, Democracy and Rule of Law

"Human dignity, human rights and fundamental freedoms must be essential throughout the lifecycle of AI systems. (…) No human should be harmed physically, economically, socially, politically or psychologically at any stage in the lifecycle of AI systems. In interactions with AI systems throughout their lifecycle, people should never be objectified, their dignity should never be harmed, and human rights should never be violated or abused."[4363]

- Flourishing the Environment and Biological Ecosystem
- Ensuring Diversity and Inclusiveness

"Respect, protection and promotion for diversity and inclusiveness must be ensured throughout the lifecycle of AI systems, in a manner consistent with demographic, cultural, social diversity and inclusiveness, as well as international human rights law, standards and principles. (…) The scope of lifestyle choices, beliefs, ideas, expressions, or personal experiences, including the discretionary use and design of AI systems, should in no way be restricted at any stage of the lifecycle of AI systems. The production, development and implementation of AI technologies should not result in discrimination in any way, and datasets should be audited in this regard."[4364]

- Living in Peaceful, Just and Interconnected Societies

The Digital Transformation Office has committed to pursuing projects including, Federated Learning and Differential Privacy technologies "with the purpose of ensuring the privacy and security of data," [4365] making Black Box algorithms explainable, and preventing misleading artificial intelligence algorithms. These objectives still have to be concretely fleshed out.

In January 2022, the newly established National Artificial Intelligence Strategy Steering Committee, which is responsible[4366] for the

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[4363] Ibid., p. 59.
[4364] Ibid., p. 59.
[4365] Digital Transformation Office of the Presidency of the Republic of Türkiye, *"Artificial Intelligence"*, https://cbddo.gov.tr/en/artificial-intelligence.
[4366] Digital Transformation Office of the Presidency of the Republic of Türkiye and Ministry of Industry and Technology, *National Artificial Intelligence Strategy 2021-2025*

appointment of the ministries that will prepare and coordinate the implementation of the detailed action plans regarding the measures in the Strategy, the preparation of said action plans in harmony with each other, and the coordination between institutions, held its first meeting under the presidency of Fuat Oktay, the Vice-President of the Republic of Türkiye.[4367] The Steering Committee is in charge of the implementation of the National Strategy and its coordination with the relevant Ministries. The Steering Committee held its second meeting in April 2022.[4368] In a statement before the meeting, Mr Oktay stated that a draft of the Action Plan for the National AI Strategy consisted of 120 actions and 451 execution steps had been prepared. Among these actions, Mr Oktay emphasized the preparation of a "Data Governance Guidance" along with the establishment of an "AI Ecosystem Advisory Committee" and the "Türkiye AI Portal".[4369] The Action Plan has still to be released.

Public Participation

In January 2020, to develop the AI Technology Roadmap, Türkiye established a stakeholder Working Group, comprised of academia, private sector and major umbrella NGOs.[4370] The Working Group operates under the Science, Technology and Innovation Policy Council of the Turkish Presidency, via the technical contribution of the Scientific and Technological Research Council of Türkiye. The purpose of the Working Group is to help ensure effective intergovernmental coordination and to identify frontier scientific themes and priority sectoral applications of AI technologies. The views from this multistakeholder group were used towards establishing priorities and development of the National AI Strategy.

(Aug. 20, 2021), p. 84
https://cbddo.gov.tr/SharedFolderServer/Genel/File/TRNationalAIStrategy2021-2025.pdf
[4367] Anadolu Ajans, *Ulusal Yapay Zeka Stratejisi Yönlendirme Kurulu ilk toplantısını yaptı* (Jan. 13, 2022), https://www.aa.com.tr/tr/bilim-teknoloji/ulusal-yapay-zeka-stratejisi-yonlendirme-kurulu-ilk-toplantisini-yapti/2472776
[4368] Fuat Oktay, the Vice-President of the Republic of Türkiye, Mr Oktay's Speech at the National Artificial Intelligence Strategy Steering Committee Meeting (April 21, 2022), https://www.youtube.com/watch?v=gmYmteHZLWA
[4369] Anadolu Ajans, *Cumhurbaşkanı Yardımcısı Oktay: Yapay zeka konusunda oluşturduğumuz büyük verinin işlenerek değer üretmesi sağlanacak* (Apr. 21, 2022), https://www.aa.com.tr/tr/gundem/cumhurbaskani-yardimcisi-oktay-yapay-zeka-konusunda-olusturdugumuz-buyuk-verinin-islenerek-deger-uretilmesi-saglanacak/2569443
[4370] OECD G20 Digital Economy Task Force, *Examples of AI National Policies* (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf

Further, workshops were held and domain experts were asked to provide their evaluations.[4371]

Public participation is still being ensured after the entry into force of the National Strategy. The Steering Committee for the National AI Strategy will be supported in its work by an AI Ecosystem Advisory Group and various working groups, in which all relevant stakeholders will be represented.

The National Strategy is publicly available on the official website of the Digital Transformation Office of the Presidency of Türkiye, both in English and in Turkish.[4372]

In 2019, Türkiye's Ministry of Industry and Technology published the 2023 Industry and Technology Strategy, taking a holistic approach to the fields of industry and technology, and aiming to ensure wide participation and to mobilize society.[4373] The Industry and Technology Strategy 2023 includes sectoral and R&D competency mapping on AI technology and AI and machine learning, with a view to strengthening Türkiye's capacity of scientific research and product development.

In January 2020, to develop the AI Technology Roadmap, which aims to identify scientific themes, sub-technology areas and sectoral applications on which Türkiye will focus its research, technological development and innovation in the coming years, Türkiye established a stakeholder Working Group, comprised of academia, private sector and major umbrella NGOs.[4374] The Working Group operates under the Science, Technology and Innovation Policy Council of the Presidency of the Republic of Türkiye, via the technical contribution of the Scientific and Technological Research Council of Türkiye. The purpose of the Working Group is to help ensure effective intergovernmental coordination and to identify frontier scientific themes and priority sectoral applications of AI technologies.

The National Strategy mentioned that the Artificial Intelligence Technology Roadmap, which was at the time in drafting process, would be

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[4371] Digital Transformation Office of the Presidency of the Republic of Türkiye, *National Artificial Intelligence Strategy 2021-2025* (Aug. 20, 2021), p. 7, https://cbddo.gov.tr/en/nais

[4372] Ministry of Industry and Technology, *National Artificial Intelligence Strategy 2021-2025* (Aug. 20, 2021), https://cbddo.gov.tr/SharedFolderServer/Genel/File/TRNationalAIStrategy2021-2025.pdf

[4373] Ministry of Industry and Technology, *2023 Sanayi ve Teknoloji Stratejisi* (Sept. 18, 2019), https://www.sanayi.gov.tr/strateji2023/sts-ktp.pdfhttps://www.sanayi.gov.tr/assets/pdf/SanayiStratejiBelgesi2023.pdf

[4374] OECD G20 Digital Economy Task Force, *Examples of AI National Policies* (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf

taken as a basis in determining the status and number of competence areas for the workforce, projecting needs and determining how to prioritize public support for technology development, commercialization and entrepreneurship.[4375] Accordingly, the AI Technology Roadmap of Türkiye was published in December 2021.[4376]

In the light of recent developments in the field of AI, Defence Industry Agency of the Presidency of the Republic of Türkiye organized the Defense Industry Artificial Intelligence Workshop in order to discuss all aspects of AI in the defense industry with the participation of more than 80 experts from academia, public authorities, and companies.[4377] It was stated that the outputs formed at the end of the Charrette will constitute an input for the "Defense Industry Artificial Intelligence Strategy."[4378]

Data Protection

The Turkish Constitution establishes rights for privacy and for data protection.[4379]

The Turkish Law on the Protection of Personal Data was published in April 2016.[4380] Türkiye ratified Convention 108 of the Council of Europe and its data protection law originates from European Union Directive 95/46/EC.

The data protection legislation ensures:

- That data is processed lawfully and fairly; accurate and where necessary, kept up to date; processed for specified, explicit and legitimate purposes; relevant, limited and proportionate to the purposes for which they are processed; and stored for the period of

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[4375] Digital Transformation Office of the Presidency of the Republic of Türkiye and Ministry of Industry and Technology, *National Artificial Intelligence Strategy 2021-2025* (Aug. 20, 2021), pp. 64 and 67, https://cbddo.gov.tr/SharedFolderServer/Genel/File/TRNationalAIStrategy2021-2025.pdf

[4376] Science, Technology and Innovation Policy Council of the Presidency of the Republic of Türkiye, *AI Technology Roadmap* (Dec., 2021), https://tubitak.gov.tr/sites/default/files/18842/btypk_yapay_zeka_tyh_sonuc_raporu.pdf

[4377] Defence Industry Agency of the Presidency of the Republic of Türkiye, Artificial Intelligence Charrette (June 2022), https://www.sstek.com.tr/ssb-den-yapay-zeka-calistayi

[4378] Ibid

[4379] Article 20 of the Turkish Constitution.

[4380] Turkish Data Protection Authority, *Data Protection in Türkiye,* https://www.kvkk.gov.tr/Icerik/6634/History

time determined by the relevant legislation or the period deemed necessary for the purpose of the processing.[4381]

- That explicit consent is required by an individual for data collection and data transfer. Further, data transfer outside of Türkiye is strictly regulated.[4382]

- That individuals have the right to access and complain regarding data collection.[4383]

The Law on the Protection of Personal Data adopts a broad definition of the processing of personal data which encompasses both "automated means and non-automated means" [4384]

The Law on the Protection of Personal Data established the Turkish Data Protection Authority (DPA), an independent regulatory authority. The DPA is composed of the Personal Data Protection Board and the Presidency. The Personal Data Protection Board is in charge of implementing and interpreting the data protection law in line with the GDPR. Currently, efforts are also underway to adopt a new data protection law, based on the GDPR.[4385]

The mission of the DPA is to provide personal data protection and to develop public awareness in line with the fundamental rights related to privacy and freedom stated in the Constitution. Concerning personal data processing in relation to AI, the DPA issued its Recommendations on the Protection of Personal Data in the Field of Artificial Intelligence in September 2021.[4386] The DPA specifies that: "In the process of developing and adopting AI applications, the fundamental rights and freedoms of data subjects should be respected and there should be no violation of any right. (…) An approach, that focuses on avoiding and mitigating the potential risks and considers human rights, functioning of democracy, social and ethical values, should be adopted in processing of personal data. (…) Data

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[4381] *Personal Data Protection Law*, Law No. 6698, (March 24, 2016), Article 4(2), https://www.kvkk.gov.tr/Icerik/6649/Personal-Data-Protection-Law

[4382] Ibid., Article 5.

[4383] Ibid., Chapter 4.

[4384] Ibid., Article 2(2).

[4385] Turkish Ministry of Justice, *Action Plan on Human Rights: Free Individual, Strong Society; More Democratic TURKEY* (March 2021): "6.7 The Law on Protection of Personal Data will be harmonized with the European Union standards", https://inhak.adalet.gov.tr/Resimler/SayfaDokuman/1262021081047Action_Plan_On_Human_Rights.pdf

[4386] Turkish Data Protection Board, *Recommendations on the Protection of Personal Data in the Field of Artificial Intelligence* (Sept. 15, 2021), https://www.kvkk.gov.tr/SharedFolderServer/CMSFiles/58678459-eba4-451a-a2f3-c1baf17b90f5.pdf

subjects should be able to have control over the processing activities, considering the effect of processing activities on individuals and society."[4387] "The role of human intervention in decision-making processes should be ensured."[4388] The DPA makes clear that the principles enshrined in the Protection of Personal Data Law and applicable in general to the processing of personal data are applicable when AI is involved. These are among others: lawfulness, fairness, proportionality, accountability, transparency.

The DPA is a member of the Global Privacy Assembly (GPA) since 2017. The DPA hosted the 2022 GPA in Türkiye. However, the DPA did not endorse the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[4389] the 2020 GPA Resolution on AI Accountability,[4390] or the 2022 GPA Resolution on Facial Recognition Technology.[4391]

The Human Rights and Equality Institution of Türkiye, affiliated with the Ministry of Justice, could also provide independent oversight of AI practices. Established by Law No. 6701 in 2016,[4392] the Human Rights Institution is a public body endowed with an independent legal status and administrative and financial autonomy. The mission of the Human Rights Institution is to ensure the protection and promotion of human rights, to guarantee individuals' right to equal treatment, and to prevent discrimination in the exercise of rights and freedoms.

The Ombudsman Institution of the Republic of Türkiye could also provide independent oversight. The Ombudsman was established in 2012[4393] as a constitutional public entity affiliated with the Grand National

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[4387] Ibid., p. 17.
[4388] Ibid., p. 20.
[4389] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf
[4390] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf
[4391] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology (Oct. 2022)*, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf
[4392] The Human Rights and Equality Institution of Türkiye, https://www.tihek.gov.tr/en
[4393] *Law on the Ombudsman Institution No. 6328.*

Assembly of Türkiye.[4394] The Ombudsman has its own private budget, headquarters in Ankara and an office in Istanbul. According to the Ombudsman Law, the Ombudsman shall be responsible for examining, investigating, and submitting recommendations to the Administration with regard to all sorts of acts and actions as well as attitudes and behaviors of the Administration upon complaint on the functioning of the Administration. The Ombudsman Institution aims to increase the service quality of the administration, contribute to the administration internalizing principles of good administration, foster transparent and accountable administration, improve human rights standards and strengthen a culture of seeking legal remedies among citizens.[4395]

Algorithmic Transparency

In 2020, during the preparation of the national AI strategy, Dr. Ali Taha Koç, the President of the DTO, acknowledged the importance of transparency, security, and accountability for AI. He stated that "[t]o eliminate the concerns that may arise, this system must first be human-centered, it must be fair, it must increase social welfare, it must be transparent, reliable, accountable, value-based, and dependent on national and ethical values."[4396]

Transparency and explainability are among the AI values and principles enshrined in the National AI Strategy. The Strategy provides that: "Person(s) and organizations involved in the lifecycle of AI systems should ensure that the AI system is transparent and explainable in accordance with its context. People have the right to be informed of a decision that was made based on AI algorithms and to request explanatory information from public institutions and private sector organizations in such cases. It should be possible to explain to the end user and other stakeholders in non-technical terms and in plain language, why, how, where and for what purpose the decisions made based on automatic and algorithmic decisions, the data leading to said decisions and the information obtained from that data are used."[4397]

[4394] Grand National Assembly of Türkiye, *Ombudsman Institution,* https://english.ombudsman.gov.tr/

[4395] Grand National Assembly of Türkiye Ombudsman Institution, https://english.ombudsman.gov.tr/about-the-institution

[4396] Şule Guner, *Experts to map out Turkey's strategy on AI centered on ethics and data protection,* Daily Sabah (Mar. 4, 2020), https://www.dailysabah.com/life/experts-to-map-out-turkeys-strategy-on-ai-centered-on-ethics-and-data-protection/news

[4397] Ministry of Industry and Technology, *National Artificial Intelligence Strategy 2021-2025* (Aug. 20, 2021), p. 61, https://cbddo.gov.tr/SharedFolderServer/Genel/File/TRNationalAIStrategy2021-2025.pdf

Türkyie has not signed yet the protocol modernizing Convention 108 which enshrines the right to algorithmic transparency.[4398] The Law on the Protection of Personal Data provides for the obligation of data controller to inform the data subjects about "the method and legal basis of collection of personal data".[4399] Data subjects are also entitled "to object to the occurrence of a result against the person himself/herself by analyzing the data processed solely through automated systems".[4400] However, the principle of transparency, algorithmic transparency or explainability are not enshrined per se in the Law on the Protection of Personal Data.

As for the DPA's Recommendations on the Protection of Personal Data in the Field of Artificial Intelligence, they provide that "the Artificial intelligence and data collection works that rely on processing of personal data should be based on the principles of (…) transparency and accountability." [4401]

With the amendment to the Law No. 5651 on the Regulating Broadcasting in the Internet and Fighting Against Crimes Committed through Internet Broadcasting (Internet Law), which entered into force in October 2022, a new obligation has been imposed on the foreign and local social network providers that receive over one million daily visits from Türkiye.[4402] Additional Article 4/5 states that the said social network providers shall submit biannual reports containing information on their "algorithms", advertising policies and "transparency policies" regarding title tags, featured or reduced access content, to the Information Technologies and Communication Authority of Türkiye.

The following statements are included in the same article: "social network provider shall include on its website in a clear, understandable and easily accessible manner which 'parameters' it uses when providing suggestions to users. Social network provider shall take the necessary measures to update users' preferences regarding the content it recommends

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[4398] See Article 9 c) of the Modernized Convention 108.
[4399] *Personal Data Protection Law*, Law No. 6698, (March 24, 2016), Article 10 (ç), https://www.kvkk.gov.tr/Icerik/6649/Personal-Data-Protection-Law
[4400] Ibid., Article 11(g).
[4401] Turkish Data Protection Board, *Recommendations on the Protection of Personal Data in the Field of Artificial Intelligence*, p. 16, https://www.kvkk.gov.tr/SharedFolderServer/CMSFiles/58678459-eba4-451a-a2f3-c1baf17b90f5.pdf.
[4402] Law No. 5651 on the Regulating Broadcasting in the Internet and Fighting Against Crimes Committed through Internet Broadcasting, Additional Article 4/5 (Oct. 13, 2022) https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5651&MevzuatTur=1&MevzuatTertip=5

and to offer the option to limit the use of their personal data, and shall include these measures in its report."[4403]

In addition, with the 18th paragraph added to Additional Article 4 on the date above, the Information Technologies and Communication Authority of Türkiye is authorized to request all kinds of "explanations" from the social network provider regarding the social network, provider's compliance with this Law, including organizational structure, "information systems," "algorithms," "data processing mechanisms" and "commercial attitudes." [4404]

The DTO Big Data and Artificial Intelligence Department has carried out the "COVID-19 Detection with Artificial Intelligence" project,[4405] in which the predictions made by the developed AI models using the X-Ray and Computed Tomography images and the reasoning for these predictions can be presented to the relevant doctors.[4406]

Open Data Project

Türkiye's Open Data Project, which was launched under the coordination of the Digital Transformation Office of the Presidency of the Republic of Türkiye, aims to establish an open data portal to make public data available as open data under privacy principles in order to increase transparency, accountability and participation and to enable production of new value-added services."[4407] As a platform for the datasets needed for developing AI technologies and applications, the initiative will contribute to fostering a digital ecosystem for AI.

The Project includes managing the regulatory and legislative area of open data which are necessary steps for participation in the Open

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[4403] Mehmet Bedii Kaya, *The Turkish Internet Law - Full Translation*, https://mbkaya.com/turkish-internet-law/

[4404] Law No. 5651 on the Regulating Broadcasting in the Internet and Fighting Against Crimes Committed through Internet Broadcasting, Additional Article 4/18 (Oct. 13, 2022), https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5651&MevzuatTur=1&MevzuatTerti p=5

[4405] OECD.AI Policy Observatory, COVID-19 Detectıon With AI (Nov. 8, 2022), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27029

[4406] Digital Transformation Office of the Presidency of the Republic of Türkiye, *National Artificial Intelligence Strategy 2021-2025* (Aug. 20, 2021), p.62, https://cbddo.gov.tr/en/nais

[4407] Digital Transformation Office of the Presidency of the Republic of Türkiye, *Open Data: Generating Value from Data for Our Country*, https://cbddo.gov.tr/en/opendata/about-the-project/

Government Partnership.[4408] The initiative also aims to provide effective coordination in preparing the labor market for digital transformation.[4409]

Some municipalities, including Istanbul and İzmir, the 1st and the 3rd biggest cities in Türkiye respectively, have already launched their own open data portals.[4410] Furthermore, Ankara Metropolitan Municipality implemented the "Transparent Ankara"[4411] project, the first and only map-based open data platform in the world.[4412] Turkish citizens from all over the world can easily access many data such as transportation boarding data, social benefits, green areas, level of dams, population and demographic information, weather conditions, WiFi hotspots, bicycle paths and trekking routes in Ankara from the open data on this platform 24/7.[4413]

Freedom of Expression

In October 2020, a law entered into force requiring all domestic and foreign social network providers that serve more than one million users in Türkiye to have local representation in Türkiye. The law gives authority to the Information and Communication Technologies Authority to order social network providers the removal or blocking of content within 48 hours if related to violation of personality and privacy rights, listed crimes, threats to public order or security, or other pressing and immediate dangers.[4414]

In October 2022, the Turkish Criminal Code was amended. Article 217/A entitled "Openly Disseminating Misleading Information" now provides that "publicly disseminating false information about the internal and external security, public order and general health of the country, in a way that is suitable for disturbing the public peace, solely for the purpose

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[4408] STIP COMPASS, Open Data Project and Open Government Partnership (August 2021), https://stip.oecd.org/stip/interactive-dashboards/policy-initiatives/2021%2Fdata%2FpolicyInitiatives%2F26589

[4409] *Open Data: Generating Value from Data for Our Country*, https://cbddo.gov.tr/en/opendata/about-the-project/

[4410] For Istanbul, see Istanbul Metropolitan Municipality, *Open Data Portal*, https://data.ibb.gov.tr/en/dataset; For İzmir, see İzmir Büyükşehir Belediyesi, *Açık Veri Portalı*, https://acikveri.bizizmir.com/

[4411] Ankara Metropolitan Municipality, https://seffaf.ankara.bel.tr/

[4412] Ankara Metropolitan Municipality, https://www.ankara.bel.tr/haberler/dunyada-ilk-ve-tek-harita-tabanli-acik-veri-paylasimi-seffaf-ankara-basladi-15749

[4413] Ibid.

[4414] *Law No:5651 on the Regulation of Publications on the Internet and Combatting Crimes Committed by Means of Such Publications*, https://www.venice.coe.int/webforms/documents/default.aspx?pdffile=CDL-AD(2016)011-e

of creating anxiety, fear or panic among the people" constitutes a crime that is to be punished by imprisonment.[4415]

EdTech and Children Tracking

In May 2022, Human Rights Watch published a global investigative report on the education technology (EdTech) endorsed by 49 governments, including Türkyie, for children's education during the pandemic. Based on technical and policy analysis of 163 EdTech products, among which some built and offered by the Turkish Government, Human Rights Watch found that governments' endorsements of the majority of these online learning platforms put at risk or directly violated children's rights.

Some EdTech products targeted children with behavioral advertising. Many more EdTech products sent children's data to AdTech companies that specialize in behavioral advertising or whose algorithms determine what children see online. In its study, Human Rights Watch gives the example of 9-year old "Rodin," student in Ankara.

"By 9 a.m., he logs into class and waves hello to his teacher and to his classmates. (…) During breaks between classes, Rodin reads chat messages from his classmates and idly doodles on the virtual whiteboard that his teacher leaves open. He watches his best friend draw a cat; he thinks his friend is much better at drawing than he is. Later in the afternoon, Rodin opens up a website to watch the nationally televised math class for that day. At the end of each day, he posts a picture of his homework to his teacher's social media page. Unbeknownst to him, an invisible swarm of tracking technologies surveil Rodin's online interactions throughout his day. Within milliseconds of Rodin logging into class in the morning, his school's online learning platform begins tracking Rodin's physical location—at home in his family's living room, where he has spent most of his days during the pandemic lockdown. The virtual whiteboard passes along information about his doodling habits to advertising technology (AdTech) and other companies; when Rodin's math class is over, trackers follow him outside of his virtual classroom and to the different apps and sites he visits across the internet. The social media platform Rodin uses to post his homework silently accesses his phone's contact list and downloads personal details about his family and friends. Sophisticated algorithms review this trove of data, enough to piece together an intimate portrait of Rodin in order to figure out how he might be easily influenced. Neither Rodin nor his mother were aware that this was going on. They were only told by his teacher that he had

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[4415] The Turkish Criminal Code No.5237, Article 217/A
https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=5237&MevzuatTur=1&MevzuatTerti p=5

to use these platforms every day to be marked as attending school during the Covid-19 pandemic."

According to Human Rights Watch, in line with child data protection principles as well as corporations' human rights responsibilities outlined in the United Nations Guiding Principles on Business and Human Rights, EdTech and AdTech companies should not collect and process children's data for advertising. The report noted steps companies should take to protect children's rights, including working with governments to define clear retention and deletion rules for children's data collected during the pandemic. Furthermore, governments should develop, refine, and enforce modern child data protection laws and standards, and ensure that children who want to learn are not compelled to give up their other rights in order to do so.[4416]

Digital ID

Türkiye is currently working on a project that citizens can log into e-Government[4417] with their digital IDs created in the blockchain network via the e-wallet mobile application.[4418] As Dr. Koç stated, with the e-Wallet Application to be offered by the DTO, citizens will be able to securely store their digital identities and log into the e-Government Gateway with their digital identities.[4419]

Digital Government

DTO initiated the preparation of the Digital Government Strategy to set out Türkiye's road map during the transition from e-Government to Digital Government in 2022 with the participation of all stakeholders.[4420] It is stated that OECD Digital Government Review for Türkiye is also being

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[4416] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments

[4417] Digital Transformation Office of the Presidency of the Republic of Türkiye, https://www.turkiye.gov.tr/non-citizens

[4418] Turkish Radio and Television Corporation (January 2, 2023) https://www.trthaber.com/haber/gundem/e-devlette-dijital-kimlik-uygulamasi-hayata-gecirilecek-735167.html

[4419] Digital Transformation Office of the Presidency of the Republic of Türkiye, News, Efforts Have Been Started for e-Government Gateway to Be Login Using Blockchain Technology (Jan. 2, 2023) https://cbddo.gov.tr/haberler/6579/e-devlet-kapisi-na-blokzincir-teknolojisi-kullanilarak-giris-yapilabilmesi-icin-calismalar-basladi

[4420] Digital Transformation Office of the Presidency of the Republic of Türkiye, Digital Government Strategy https://cbddo.gov.tr/en/digital-government-strategy/

conducted under the coordination of the DTO that will serve as a foundation for the Digital Government Strategy.[4421]

DTO firstly submitted a survey to public institutions and organizations to analyze the current status of Türkiye in terms of the OECD's recent Digital Government Policy Framework, and conducted peer review studies with representatives from public institutions and peer countries. It has been committed by the DTO to produce policy recommendations in line with the needs and opportunities identified by the OECD and finally prepare and publish the Digital Government Review Report for Türkiye. It is explicitly stated that "the findings and recommendations of the OECD Digital Government Review will also serve as a foundation for the Digital Government Strategy" which is expected to be released in 2023.[4422]

The first focus group meeting was held in January 2023 with 137 representatives from the government, universities, NGOs and private sector to carry out solution development studies on six main pillars, especially data management of the private sector in the public sector and digital inclusion and participation.[4423]

Lethal Autonomous Weapons

Türkiye is one of the most important lethal autonomous weapon systems (LAWS) developer and exporter in the world. "Thought Turkey's defense sector remains small compared with giants like China, it has outsized influence because of the impact of its drones in recent conflicts. The country's Bayraktar TB-2 drones have been used in at least four different conflicts – Ukraine, Syria, Libya[4424] and in Azerbaijan's conflict with Armenia."[4425]

[4421] Ibid.

[4422] Ibid.

[4423] Digital Transformation Office of the Presidency of the Republic of Türkiye, *Focus Group Meetings on Digital Government Strategy Held in Ankara* (Jan. 9, 2023), https://cbddo.gov.tr/en/news/6672/dijital-devlet-stratejisi-odak-grup-toplantilari-gerceklestirildi

[4424] For the use of Kargu-2 drones on human targets in 2020 in Libya, see also British Embassy Ankara, *Open Data in Turkey* (March 2020), http://www.novusens.com/s/2462/i/UK-Turkey_Open_Data_Writeup_ENG.pdf; *Letter dated 8 March from the Panel of Experts on Libya established pursuant to resolution &973(2011) addressed to the President of the Security Council* , Final report, (March 8, 2021), https://digitallibrary.un.org/record/3905159?ln=en

[4425] J. Malsin, *Drones, Unmanned Boats and Killer Robots Have Made Turkey an Arms-Industry Powerhouse*, The Wall Street Journal (July 21, 2022), https://www.wsj.com/articles/drones-unmanned-boats-and-killer-robots-have-made-turkey-an-arms-industry-powerhouse-11658404887

Türkiye has participated in every Convention on Certain Conventional Weapons (CCW) meeting on lethal autonomous weapons systems between 2014 and 2023. At the 2022 meeting of the CCW Meeting High Contracting Parties, Türkiye stated that "[w]e believe that the development and use of autonomous weapons systems which does not have meaningful human control are undesirable and risk compliance with our obligations steaming from the International Humanitarian Law. Humans (commanders and operators) have to be involved in the decision loop and bear the ultimate responsibility when dealing with the decision of life and death in order to ensure compliance with International Law, in particular International Humanitarian Law."[4426] Türkiye also repeated its commitment to fully implement the CCW and its annexed Protocols.

However, Türkiye was not among the 70 countries that endorsed a joint statement on autonomous weapons systems at the 77th UN General Assembly meeting in 2022. In this joint statement, States urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[4427]

Human Rights

According to Freedom House, Türkiye is "not free.[4428] Türkiye receives low scores for political rights and civil liberties (32/100) in 2023. According to the 2022 Freedom House report, "President Recep Tayyip Erdoğan's Justice and Development Party (AKP) has ruled Turkey since 2002. After initially passing some liberalizing reforms, the AKP government showed growing contempt for political rights and civil liberties and has pursued a wide-ranging crackdown on critics and opponents since 2016. Constitutional changes in 2017 concentrated power in the hands of the president, removing key checks and balances. While Erdoğan continues

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[4426] Reaching Critical Will (2022),
https://reachingcriticalwill.org/images/documents/Disarmament-fora/ccw/2022/hcp-meeting/statements/16Nov_Turkiye.pdf
[4427] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022),
https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.
[4428] Freedom House, *Freedom in the World 2023 – Turkey* (2023),
https://freedomhouse.org/country/turkey/freedom-world/2023

to dominate Turkish politics, a deepening economic crisis and opportunities to further consolidate political power have given the government new incentives to suppress dissent and limit public discourse."[4429]

Regarding transparency, Freedom House reports that "[a]lthough Türkiye has an access to information law on the books, in practice the government lacks transparency and arbitrarily withholds information on the activities of state officials and institutions."

The DTO has served as the national coordinator and secretariat for the Council of Europe Ad Hoc Committee on Artificial Intelligence (CAHAI) and represented[4430] Türkiye[4431] as one of the lead co-ordinators of two subworking[4432] groups[4433] and took part in the work of all the other subworking groups. After CAHAI's mandate elapsed, the Council of Europe Committee on Artificial Intelligence (CAI) took over, where the DTO serves as the national coordinator and secretariat for the CAI. Türkiye is represented at the plenary meetings by the observers and government-appointed representatives.

OECD / G20 AI Principles

As a founding member of the OECD, a NATO ally and a G20 member, Türkiye adopted the OECD AI Principles. According to the OECD, Türkiye's AI Technology Roadmap is a multistakeholder effort that supports implementation of the G20 AI Principles on inclusive growth, robustness and accountability.[4434] The National AI Strategy explicitly acknowledges that Türkiye is a stakeholder of human- centric AI principles

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[4429] Freedom House, *Freedom in the World 2022 – Turkey* (2022), https://freedomhouse.org/country/turkey/freedom-world/2022

[4430] Council of Europe, Ad Hoc Committee on Artificial Intelligence (CAHAI) Policy Development Group (Oct. 12, 2021) https://rm.coe.int/cahai-pdg-2021-pv4-meeting-report-6th-meeting/1680a45412

[4431] Council of Europe, CAHAI - Ad hoc Committee on Artificial Intelligence (Dec. 2, 2021) https://rm.coe.int/cahai-2021-lp3-fin-nov-dec-web-2778-2444-1349-v-1/1680a4d242

[4432] Council of Europe, Ad Hoc Committee on Artificial Intelligence (CAHAI) Policy Development Group (May 27, 2021) https://rm.coe.int/cahai-pdg-2021-pv3-abridged-meeting-report-5th-meeting-2763-0718-0035-/1680a2d8a1

[4433] Council of Europe, Ad Hoc Committee on Artificial Intelligence (CAHAI) Legal Frameworks Group (Cahai-LFG) (June 1, 2021) https://rm.coe.int/cahai-lfg-2021-pv3-en-3rd-meeting-report-2787-1916-6723-v-1/1680a2d64a

[4434] OECD G20 Digital Economy Task Force, *Examples of AI National Policies* (2020), https://www.mcit.gov.sa/sites/default/files/examples-of-ai-national-policies.pdf

determined by OECD (…) and adopts "trustworthy and responsible AI" values and principles.[4435]

Türkiye is an active member of the OECD Network of Experts on Artificial Intelligence with representatives at ministerial and presidential level[4436] and contributes to the OECD Committee on Digital Economy Policy (CDEP) Working Party on Artificial Intelligence Governance (WPAIGO) meetings and policy documents both at the technical and at the bureau membership level.[4437]

The application of Türkiye for membership to the Global Partnership for Artificial Intelligence (GPAI) was approved[4438] by consensus at the GPAI Ministerial Council Meeting in Tokyo on 22 November 2022. With its membership in GPAI, Türkiye will be able to partake in the ongoing international cooperation on the responsible development and use of AI on this platform and benefit from the multi-stakeholder cooperation within GPAI to adopt trustworthy AI, share multi-disciplinary research, identify knowledge gaps, maximize coordination, and identify and mitigate potential challenges on the other.

AI Mirror Committee

Technical committee activities of the International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), The European Committee for Standardization (CEN) and the European Committee for Electrotechnical Standardization (CENELEC) are followed by Mirror Committees (MTC-Mirror Technical Committees) formed by Turkish Standards Institution (TSE).[4439] MTC 195 Artificial Intelligence National Technical Committee (AI Mirror Committee)[4440] was established in November 2022 to follow and contribute to ISO/IEC JTC 1/SC 42

[4435] Ministry of Industry and Technology, *National Artificial Intelligence Strategy 2021-2025* (Aug. 20, 2021), p. 58, https://cbddo.gov.tr/SharedFolderServer/Genel/File/TRNationalAIStrategy2021-2025.pdf
[4436] OECD.AI Policy Observatory, OECD.AI Community https://oecd.ai/en/community
[4437] OECD, Online Guide to OECD Intergovernmental Activity (Mar. 15, 2022) On-Line Guide to OECD Intergovernmental Activity
[4438] The Global Partnership on Artificial Intelligence, Community, *https://gpai.ai/community/*
[4439] Turkish Standards Institution, *International and European Standardization Work*, https://en.tse.org.tr/IcerikDetay?ID=806
[4440] Turkish Standards Institution, *Establishment of Artificial Intelligence National Technical Committee* (Nov. 28, 2022) https://tse.org.tr/Icerik/DuyuruDetay?DuyuruID=6315

"Artificial Intelligence" and CEN/CLC JTC 21 "Artificial Intelligence" technical committees.[4441]

UNESCO Recommendation on the Ethics of Artificial Intelligence

Türkiye has endorsed the 2021 UNESCO Recommendations on the Ethics of AI. The Turkish National AI Strategy mentions that the "country is a stakeholder of human-centric AI principles determined by (…) UNESCO, and adopts "trustworthy and responsible AI" values and principles"[4442], although it does not refer specifically to the UNESCO Recommendation.

Türkiye carried out its membership in the Executive Board of UNESCO for the period of 2017-2021. In addition, in the election of Members to the Executive Board held at the 41st General Conference of UNESCO on 17 November 2021, Turkey was re-elected as a member state for the 2021-2025 period.[4443] The Ministry of Foreign Affairs of the Republic of Türkiye states that Türkiye "embraces the purpose and ideals of UNESCO", believes "in the significance of maintaining active support to all levels of the Organization" and "will continue to contribute strengthening UNESCO's activities and values as a member of the Executive Board."[4444] Following the adoption of the UNESCO Recommendation on the Ethics of Artificial Intelligence, Türkiye started to participate and contribute to the "Group of Friends of the implementation of the Recommendation on the Ethics of Artificial Intelligence" meetings.[4445]

It is worth underlining that the Executive Board, of which Türkiye is a member, adopted a decision containing a section on the Implementation

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[4441] Turkish Standards Institution, *Mirror Committees and International Technical Committees They Follow* https://www.tse.org.tr/IcerikDetay?ID=2091&ParentID=3516
[4442] Ministry of Industry and Technology, *National Artificial Intelligence Strategy 2021-2025* (Aug. 20, 2021), p. 58,
https://cbddo.gov.tr/SharedFolderServer/Genel/File/TRNationalAIStrategy2021-2025.pdf
[4443] Ministry of Foreign Affairs of Republic of Türkiye, Press Release Regarding Turkey's Election as a Member to the UNESCO Executive Board (17 November 2021) https://www.mfa.gov.tr/no_-384_-unesco-yurutme-kurulu-uyeligine-secilmemiz-hk.en.mfa
[4444] Ibid.
[4445] UNESCO, *Decisions Adopted by the Executive Board at its 215th Session* (Nov. 18, 2022) Decisions adopted by the Executive Board at its 215th session - UNESCO Digital Library

of the Recommendation on the Ethics of Artificial Intelligence at its 215th session held on 5-19 October 2022.[4446]

Türkiye also expressed interest in engaging with the list of activities and deliverables linked to the implementation of the Recommendation for Member States. In this regard, to ensure the effective implementation of the Recommendation, as the public authority responsible for AI governance, the Digital Transformation Office (DTO) of the Presidency of the Republic of Türkiye filled the survey in detail by UNESCO composed of 127 questions, seeking the views of expert authorities in Member States to ensure that the "Readiness Assessment Methodology" and "Ethical Impact Assessment" tools being developed under the Recommendation reflect the situation in Member States as best as possible and respond to their needs.[4447]

Evaluation

Türkiye is an emerging market for AI, and a regional leader in AI. Türkiye has adopted a National AI Strategy with a clear human-centered approach. In the absence of any AI legislation and despite the lack of provisions in the Law on the Protection of Personal Data regarding algorithmic transparency, the Turkish Data Protection Authority has issued ambitious Recommendations on the Protection of Personal Data in the Field of Artificial Intelligence. It remains to be seen how the National Strategy will be concretely operationalize and the DPA has yet to adopt any AI-related decisions. Concerns exist in relation to the development of Lethal Autonomous Weapons and restrictions on freedom of expression.

[4446] United Nations Educational, Scientific and Cultural Organization (UNESCO), *Implementation of the Recommendation on the Ethics of Artificial Intelligence* (Oct. 7, 2022), https://unesdoc.unesco.org/ark:/48223/pf0000382931
[4447] UNESCO, *Survey of Government on Ethical AI UNESCO*, UNESCO survey of governments on ethical AI (limesurvey.net)

Uganda

National AI Strategy

Uganda is yet to issue a national AI strategy. According to the OECD AI observatory, the country has a national task force to advise the government on the localization of fourth industrial revolution technologies to propel economic development.[4448] The Taskforce led the process of development of Uganda's "National 4IR Strategy: A continental 4IR HUB that enables a smart and connected Uganda society," published in 2019[4449]. The Taskforce analyzed global trends in emerging technologies, with a focus on Uganda and the East African region's development goals and aspirations.[4450]

Under the coordination of the Office of the Prime Minister, Uganda's National Fourth Industrial Strategy (National 41R) aims to transform the country into a continental 4IR hub with a view to transform and accelerate Uganda's development into an innovative, productive and competitive society using 4IR technologies by 2040.[4451] The four pillars of the strategy are: Agriculture, Industry, Service, and ICTs.

The 4IR Strategy outlines 7 objectives:

1. To enhance the deployment and use of 4IR technologies in Uganda's key economic sectors to drive productivity ,value addition and commercialization.
2. To build a strong healthy, knowledgeable and productive population by leveraging emerging technologies.
3. To generate jobs through digitally traded exported services, automated financial services, and digitally augmented logistics and trade.
4. To leverage 41R technologies in the establishment of smart cities and the management of critical resources.
5. To transform government performance and service delivery of improved standards of living, quality of life, and well-being.
6. To strengthen and stimulate research and innovation in 4IR.
7. Supporting national security in the physical and digital world.

[4448] OECD.AI, *Expert National Task Force on Fourth Industrial Revolution* (2019), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27387

[4449] Ministry of ICT,. *Uganda's National 4IR Strategy,* (Oct 2020), https://ict.go.ug/wp-content/uploads/2020/10/Executive-Summary-Ugandas-National-4IR-Strategy.pdf

[4450] Government Media, Nicholas Opolot, HE *Museveni appoints 4th Industrial Revolution Taskforce* (Apr. 9, 2019), https://www.media.gcic.go.ug/he-museveni-appoints-4th-industrial-revolution-taskforce

[4451] Ibid.

Critical enablers of the 4IR strategy include: 4IR connectivity, regulatory agility, upskilled population, e-Government, and resource mobilization. The enabler of regulatory agility will require improving governance, closing gaps between regulation, legislation, and strategy, and enacting a data protection legal frameworks to facilitate data sharing, meet global standards for data protection and harmonize with emerging technologies. The implementation of the strategy requires the coordination of the 4IR initiatives through the Prime Minister's office, the facilitation of an ecosystem of centers of excellence, and the coordination of funding through the ICT Sector Working Group (SWG). In December 2022, the Task Force presented the first 4IR strategy report to the Prime Minister of Uganda.[4452]

The National Vision 2040 frames the National 4IR in Uganda. The Vision identifies Science, Technology Engineering, and Innovation (STEI) as key drivers for development.. Uganda's National Vision 2040 aspires to transform the country from a predominantly peasant and low income country to a competitive upper-middle-income country.[4453] The Vision 2040 is in line with the East African Vision 2050,[4454] which affirms that Science Technology, and Innovations (STI), whether embodied in human skills, capital goods, or practices and organizations, is one of the key drivers of economic growth and sustainable development. Uganda's policy aims to strengthen: infrastructure (energy, transport, water, oil and gas, and ICT); Science, Technology, Engineering, and Innovation (STEI); land use and management; urbanization; human resource; and peace, security and defense.

The National Development Plan (NDPIII) sets the aspirations articulated in Uganda Vision 2040.[4455] Within the theme of sustainable industrialization for inclusive growth and sustainable wealth creation, the goals of the (NDPIII) 2020/21 – 2024/25 are: increased household incomes and improved quality of life of Ugandans. The NDPIII plan includes a

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[4452] Office of the Prime Minister, *PM Receives 4IR Strategy Report, commits Government to implement it* (Dec. 9, 2022), https://opm.go.ug/pm-receives-4ir-strategy-report-commits-government-to-implement-it/

[4453] National Planning Authority, *Uganda Vision 2040*, http://www.npa.go.ug/wp-content/uploads/2021/02/VISION-2040.pdf

[4454] East African Community (EAC), *Vision 2050* (Aug. 2015), http://repository.eac.int/bitstream/handle/11671/567/EAC%20Vision%202050%20FINAL%20DRAFT%20OCT-%202015.pdf?sequence=1&isAllowed=y

[4455] National Planning Authority, *National Development Plan III 2020/21 – 2024/25* (Jul. 2020), http://www.npa.go.ug/wp-content/uploads/2020/08/NDPIII-Finale_Compressed.pdf

Digital transformation Program aiming to realize 18 projects to increase ICT penetration and use of ICT services for social and economic development, ICT incubation and increasing e-government services. The focus of the Digital Transformation Program for Artificial Intelligence is on capacity-building but not on policy or regulatory framework, or strategic intent in the field of AI. Notable in the NDPIII however is the commitment to a Human-Rights Based Approach (HRBA) for sustainable economic development, expressed as follows:[4456] "Ensure inclusive sustainable development (…) with particular attention to human rights principles of equality and non-discrimination, empowerment and participation and attention to vulnerable groups. (…) All sectors, ministries, departments, agencies, and local governments are expected to adopt HRBA in their respective policies, programs, legislation, and plans."

In line with both the Vision 2040 and NDPIII, the National Science, Technology and Innovation (STI) Policy of 2009[4457] guides innovations in these fields.[4458] The Ugandan government established the Ministry of Science, Technology and Innovation to coordinate STI efforts in the country, creating linkages with all actors, and providing clear policy direction and supervision of STI initiatives.[4459]

Other supportive policies for the creation of an STI ecosystem is the National Science, Technology and Innovation Plan (NSTP) 2012/2013–2017/2018 and the Science, Technology, and Innovation Sector Development Plan (SDP) 2019/2020-2024/2025.[4460] The seven strategic objectives of the SDP include the enhancement of policies, planning, and coordination in the sector, development of infrastructure, transfer of technologies, R&D capacities and, the development and implementation of

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[4456] Ibid., p. 72.

[4457] Ministry of Finance, Planning and Economic Development, *National Science Technology and Innovation Policy August 2009,* http://www.ist-africa.org/home/files/Uganda_STI_Policy_2009.pdf

[4458] Unlocking Public & Private Finance for the Poor (UNCDF), *NITA-U and UNCDF announce partnership to develop a Data Protection* Portal (Sept. 3, 2021), https://www.uncdf.org/article/7117/nita-u-and-uncdf-announce-partnership-to-develop-a-data-protection-portal

[4459] Ministry of Science, Technology& Innovation, *Ministerial Policy Statement Financial Statement 2017/2018,* https://mosti.go.ug/sites/default/files/publication/2018/08/Ministerial%20Policy%20Statement%20for%20Science%20%26%20Tech%2017-18_0.pdf

[4460] UNCTAD, *Science, Technology & Innovation Policy Review of Uganda* (Oct. 16, 2020), https://unctad.org/publication/science-technology-and-innovation-policy-review-uganda

a legal-regulatory framework to guide the safe and appropriate use of new technologies.

At the regional level, Uganda has been actively participating in several relevant policy initiatives. As a member of the African Union (AU), Uganda is committed to take specific measures to formulate and implement human-centered policies, in alignment with the goals of the AU digital transformation strategy[4461] and the AU Continental Data Policy Framework.[4462] Ugandan representatives from government, academia and private sectors form part of the committees and AI working groups that hold discussions around AI and ICT for social-economic development in Smart Africa and the African Union. The Smart Africa initiative is a new commitment of more than 36 African Heads of State and Government to accelerate sustainable social-economic transformation using ICTs and affordable broadband access.[4463] Uganda has been actively participating in the drafting of the recently published "AI For Africa" Blueprint strategy report[4464] by Smart Africa. Uganda has also contributed to the work of the African Union High-Level Panel on Emerging Technologies (APET),[4465] mandated to advise the AU on harnessing emerging technology innovations for Africa's social-economic transformation. In February 2022, APET announced the future issuance of its report on "AI for Africa" which will pave the way towards the drafting of an AU AI continental strategy.[4466] Uganda is also represented in the continental AI team leading the development of a Continental AI Strategy expected to be completed by January 2024.[4467]

[4461] African Union, *The Digital Transformation Strategy for Africa (2020-2030),* https://au.int/sites/default/files/documents/38507-doc-dts-english.pdf

[4462] African Union, *40th Ordinary Session of the Executive Counci.* (Feb. 2-3, 2022), https://au.int/sites/default/files/decisions/41584-EX_CL_Dec_1143-1167_XL_E.pdf

[4463] Smart Africa, *Who we are - Smart Africa* (Jan. 31, 2014), https://smartafrica.org/who-we-are/

[4464] Sedola, Pescino and Greene, *Artificial Intelligence for Africa* (2021), https://smart.africa/board/login/uploads/70029-eng_ai-for-africa-blueprint.pdf

[4465] *African Union High Level Panel on Emerging Technologies (APET)* (Dec. 11, 2020), https://www.nepad.org/microsite/african-union-high-level-panel-emerging-technologies-apet, https://www.linkedin.com/posts/barbara-glover_apet-africanunion-ai-activity-7026142037485780993-aP-Y

[4466] AUDA-NEPAD, *The African Union Artificial Intelligence Continental Strategy For Africa* (May 30, 2022), https://www.nepad.org/news/african-union-artificial-intelligence-continental-strategy-africa

[4467] https://www.nepad.org/news/african-union-artificial-intelligence-continental-strategy-africa

Public Participation

The Republic of Uganda set a Guide to Policy Development & Management for the country in 2013[4468] to address the lack of a formalized process for policy management. The government set forth a commitment to public consultations to promote democratization and empowerment. Modes of public consultation range from information consultations to one-time meetings with stakeholders to discussion papers and draft legislation. Recommendations included reasonable periods for consultation and participation in the early stages of policy formulation.

The e-citizen Portal, an initiative of the National Information Technology Authority of Uganda (NITA-U) is a channel to enable e-government services to citizens and non-residents. The site includes links to all government agencies but does not include a portal for public participation.[4469]

The government of Uganda in collaboration with UN Global Pulse, organized the Expert National Task Force on Fourth Industrial Revolution, under the leadership of the Ministry of ICT & National Guidance.[4470] The process involved 23 experts from academia, engineering, science, and policy-makers.[4471] The first meeting took place on December 17, 2019, in Kampala. The draft strategy validated in October 2020[4472] guides the Ugandan government in harnessing emerging technologies.

In the most recent UN e-Government Survey of 2022, Uganda ranked 144th out of 193 countries in the world and in the bottom ten among African countries, in terms of the e-Government development index (EGDI).[4473]

[4468] Republic of Uganda, *Revised Guide to Policy Development Management 2013* (Sept. 2016), *http://regulatoryreform.com/wp-content/uploads/2016/09/Uganda-Revised-Guide-to-Policy-Development-Mgt-2013.pdf*

[4469] eCitizen, *eCitizen Portal,* (2023), https://ecitizen.go.ug/

[4470] UN Global Pulse, *Breakfast meeting on Governance of Data and AI for the Expert Task Force on Fourth Industrial Revolution Technologies* (Dec. 17, 2019), https://www.unglobalpulse.org/event/breakfast-meeting-on-governance-of-data-and-ai-for-the-expert-task-force-on-ffourth-industrial-revolution-technologies/

[4471] OECD.AI, *Expert National Task Force on Fourth Industrial Revolution* (2019), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27387

[4472] Chim Reports, Giles Muhame, *Uganda: National Taskforce Releases Draft Report on utilizing 4th Industrial Revolution Technology* (Oct. 26, 2020), https://chimpreports.com/uganda-national-taskforce-releases-draft-report-on-utilizing-4th-industrial-revolution-technologies/

[4473] United Nations, *E-government Survey 2022, The future of Digital Government* (2022), https://desapublications.un.org/sites/default/files/publications/2022-09/Web%20version%20E-Government%202022.pdf

Uganda has yet to establish a systematic process to engage stakeholders in meaningful participation in policy-making.

Data Protection

The Data Protection and Privacy Act (DPPA) was enacted in 2019 and ancillary regulations, the Data Protection and Privacy Regulations published in 2021.[4474] The DPPA took the European Union GDPR as a model and seeks to "protect the privacy of individual and personal data by regulating the collection and processing of personal information; to provide for the rights of the persons whose data is collected (data subjects) and the obligations of data collectors, data processors and data controllers; and to regulate the use or disclosure of personal information; and for related matters."

The DPPA provides also that all personal data must be handled in accordance with the principles of accountability, lawfulness, minimization, retention, quality, transparency, and security.[4475]

The Law establishes the Personal Data Protection Office under the National Information Technology Authority, Uganda (NITA-U) to oversee the implementation of and be responsible for the enforcement of the Act.[4476] The Personal Data Protection Officer is not a member of the Global Privacy Assembly (GPA) and has not endorsed the 2018 GPA Declaration on Ethics and Data Protection,[4477] the 2020 GPA Resolution on Accountability in the Development and Use of AI[4478] and the 2022 GPA Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology. [4479]

[4474] NITA Uganda, *Data Protection and Privacy Act 2019* (May, 3, 2019), https://www.nita.go.ug/sites/default/files/2021-12/Data%20Protection%20and%20Privacy%20Act%20No.%209%20of%202019.pdf

[4475] Ibid.

[4476] Unlocking Public &Private Finance for the Poor (UNCDF), *NITA&UNCDF announce partnership to develop Data protection Portal* (Sept. 2, 2021), https://www.uncdf.org/article/7117/nita-u-and-uncdf-announce-partnership-to-develop-a-data-protection-portal

[4477] International Conference of Data Protection & Privacy Commissioners, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[4478] Global Privacy Assembly (GPA), *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence,* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[4479] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition technology* (Oct .2022),

The Data Protection and Privacy Regulations of May 2021 give effect to Article 27 of the Constitution on the right to privacy.[4480] Some data protection safeguards are also contained in other laws including the Electronic Transactions Act, 2011, Computer Misuse Act, 2011, Electronic Signatures Act, 2011, National Information Technology Authority, Uganda Act (NITA-U Act), and the Access to Information Act, 2005.

Uganda is not a party to the AU Convention on Cyber Security and Personal Data Protection (Malabo Convention).[4481] The Convention addresses the development of information and communication technologies while upholding fundamental rights and freedoms. Calls to the government of Uganda to ratify the Malabo Convention and reinforce its work on data protection re-emerged in 2022.[4482]

Algorithmic Transparency

Section 27 of the Data Protection and Privacy Act, 2019 addresses the rights of data subjects related to automated decision making.[4483] However, and unlike the GDPR, it does not provide for algorithmic transparency

Biometric Identification

Uganda's National Identification (ID) program was launched in 2014, and further expanded after the passage of the Registration of Persons Act in 2015, making it mandatory for purchasing a SIM card, making

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https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[4480] The Republic of Uganda, *The Data Protection and Privacy Regulations, 2021* (Mar.12, 2021), https://www.dataguidance.com/sites/default/files/uganda_data_protection_regulations_small.pdf

[4481] African Union, *African Union Convention on Cybersecurity (Malabo Convention)* (Jun. 27, 2014), https://au.int/en/treaties/african-union-convention-cyber-security-and-personal-data-protection; African Union, *List of Countries which have signed, ratified/acceded to the African Union Convention on Cyber Security and Personal Data Protection* (Mar. 25, 2022), https://au.int/sites/default/files/treaties/29560-sl-AFRICAN_UNION_CONVENTION_ON_CYBER_SECURITY_AND_PERSONAL_DATA_PROTECTION.pdf

[4482] Kenneth Kazibwe, *Government asked to "urgently" ratify Malabo convention on cyber security,* Nile Post (Dec. 12, 2019), http://nilepost.co.ug/2019/12/12/government-asked-to-urgently-ratify-malabo-convention-on-cyber-security/

[4483] NITA Uganda, *Data Protection and Privacy Act 2019* (May 3, 2019), https://www.nita.go.ug/sites/default/files/2021-12/Data%20Protection%20and%20Privacy%20Act%20No.%209%20of%202019.pdf

registration essentially a pre-requisite for getting online.[4484] Registration for the National ID is also required for a range of other vital services, including accessing public education or healthcare services, obtaining a passport, or opening a bank account, voting, and public service verification which has led to the weeding out of many 'ghost' workers, citizen verification for passport issuance, and tax identification.[4485]

Under the National ID system citizens' biometric data is captured and validated for adults, and children, birth registration is used so that they can be issued a National Identification Number (NIN) or an ID card. The National ID system managed by the National Identification & Registration Authority (NIRA) is moving towards the development of its digital ID ecosystem that will be put in place by 2024, including a new biometrics registration drive.[4486] The process will expand the system to forms of biometrics other than fingerprints including iris and face biometrics. However, the system has also been plagued by technical challenges since its inception, including allegations of a major data breach in June 2017. Though the government denied these reports, it admitted that citizens' biometric data had been shared with telecommunications companies, as part of the process of verifying SIM cards.[4487]

In 2022, a coalition of civil society organizations filed a lawsuit in the High Court of Kampala for digital exclusion.[4488] The case Initiative for Social and Economic Rights [ISER], the Health Equity and Policy Initiative [HEAPI], & Unwanted Witness v. Attorney General and National Identification and Registration Authority (NIRA) alleges that the digital ID system, also known as Ndaga Muntu, poses an exclusionary barrier that violates women's rights to health care, and the right to social security

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[4484] Michael Karanicolas. *Serious Concerns Around Uganda's National Biometric ID Program,* Information Society Project. Yale Law School (Nov. 20, 2019), https://law.yale.edu/isp/initiatives/wikimedia-initiative-intermediaries-and-information/wiii-blog/serious-concerns-around-ugandas-national-biometric-id-p

[4485] Ibid.

[4486] Ayang Macdonald, *Uganda's digital ID achievements, challenges, and prospects: Biometrics registration drive planned,* BiometricUpdate.Com (Jan. 31, 2022) https://www.biometricupdate.com/202201/ugandas-digital-id-achievements-challenges-and-prospects

[4487] Michael Karanicolas, Serious *Concerns Around Uganda's National Biometric ID Program* (Nov. 20, 2019), https://law.yale.edu/isp/initiatives/wikimedia-initiative-intermediaries-and-information/wiii-blog/serious-concerns-around-ugandas-national-biometric-id-p

[4488] Nita Bhalla, *FEATURE- Uganda sued over digital ID system that excludes millions* (May 16, 2022), https://www.reuters.com/article/uganda-tech-biometrics-idUSL3N2X32RG

benefits.[4489] The case was first heard by the court on October 6, 2022.[4490] The alleged exclusion has been fatal, especially among the elderly and pregnant women who have been barred from healthcare and welfare services. Research conducted by the plaintiffs estimates that up to 33% of adults in Uganda have yet to receive the biometric ID card launched in 2015, limiting their access to a range of public services, from welfare benefits and maternity care to college enrolment, formal employment, and opening bank accounts.[4491]

Facial Recognition

The government of Uganda has actively used AI and new technologies for purposes of mass surveillance, policing, and crime prevention. In 2018, the government rushed the procurement of 24-hour CCTV cameras in crime-prone areas in Kampala and surrounding areas following a wave of murders. These crimes included high-profile Ugandan citizens, Muslim clerics, military and police officers, Cabinet Ministers, among others. The first phase of the plan included the installation of 1,940 cameras in 2018 in the capital city area.[4492] The second phase cost the Ugandan public over USD 104 million, in a procurement deal hastened through Parliament under vague loan terms.[4493]

The Ugandan Parliament endorsed the deployment of the technology for policing functions without legislating a corresponding legal framework fostering issues of the legality of such actions.[4494] Human rights concerns emerged over the fact that the system was operated on a centralized database, with the potential of negatively affecting citizens' right to privacy, and freedom of peaceful assembly.

[4489] Frank Hersey*, Civil society coalition sues Ugandan government, alleging digital ID exclusion* (Nov. 14, 2022), https://www.biometricupdate.com/202204/civil-society-coalition-sues-ugandan-government-alleging-digital-id-exclusion

[4490] Frank Hersey, *Ugandan digital ID on trial: high court requests expert witness while AG denies exclusion* (Nov 14, 2022) https://www.biometricupdate.com/202210/ugandan-digital-id-on-trial-high-court-requests-expert-witness-while-ag-denies-exclusion

[4491] Nita Bhalla, *FEATURE- Uganda sued over digital ID system that excludes millions* (May 16, 2022), https://www.reuters.com/article/uganda-tech-biometrics-idUSL3N2X32RG

[4492] The Independent, *More than 1900 CCTV cameras installed in Kampala* (Apr. 15, 2019), https://www.independent.co.ug/more-than-1900-cctv-cameras-installed-in-kampala

[4493] Privacy International, *Huawei infiltration in Uganda* (Jun. 25, 2020) https://privacyinternational.org/case-study/3969/huawei-infiltration-uganda

[4494] *Surveillance State Parliament Endorses Unregulated Surveillance* (Jan. 2022) https://www.unwantedwitness.org/download/Surveillance-State-Parliament-Endorses-Unregulated-Surveillance.pdf

The CCTV project was not well received due to the lack of openness, and transparency in the procurement process and in the management of the system, hindering public trust. Reports of unexplainable leaked footage from CCTV cameras[4495] raised further questions on the ethical standards and requirements to manage the retrieval, sharing and elimination of public CCTV footage.[4496]Additionally, concerns exist about how the infrastructural deficiencies (poor or no street lighting, limited connectivity, low standards of maintenance) have undermined the benefits of the use of CCTV in several instances of application of the system. Despite these reservations, the Ugandan police proceeded with the plans to integrate their CCTV camera and forensic system with other key agencies' data such as Uganda Revenue Authority (URA), NITA-U, NIRA, and the immigration office. In the second phase of this plan, started in 2020, 20 facial recognition cameras were installed and connected to 107 monitoring centers at different police stations within 2,319 mapped countryside municipalities and major towns.[4497]

Key concerns around transparency and accountability of both resources and personal data remain unanswered, in particular the use of AI facial recognition technologies to indiscriminately deal with persons of interest, including dissidents.[4498] In a report regarding concerns in the use of AI in Africa, AfriPoli found the use of facial recognition systems in the 2020 Ugandan elections, to monitor, track and arrest 836 supporters of the opposition.[4499] The participation of Huawei AI in 16 African countries, including Uganda has led to the use of mass surveillance data to local law enforcement.[4500]

[4495] Kampala Dispatch, *Who are these people who leak footage from CCTV cameras in Kampala* (Apr. 25, 2019), https://twitter.com/dispatchug/status/1121455937724788736
[4496] Daniel Mwesigwa, *Cameras, mobiles, radios – action!: Old surveillance tools in new robes in Uganda* (2019), https://giswatch.org/node/6194
[4497] Privacy International, *Huawei Infiltration in Uganda* (Jun. 25, 2020), https://privacyinternational.org/case-study/3969/huawei-infiltration-uganda
[4498] Global Information Society Watch, *Artificial intelligence: Human rights, social justice and development, Collaboration on International ICT Policy for East and Southern Africa (CIPESA)* (2019), https://giswatch.org/sites/default/files/gisw2019_web_uganda.pdf
[4499] Africa Policy Institute (AfriPoli), *AI in Africa: Key Concerns and Policy Considerations for the Future of the Continent* (May 30, 2022), https://afripoli.org/ai-in-africa-key-concerns-and-policy-considerations-for-the-future-of-the-continent
[4500] Australian Strategic Policy Institute, *China's AI deployment in Africa poses risks to security and sovereignty* (May 5, 2021), https://www.aspistrategist.org.au/chinas-ai-deployment-in-africa-poses-risks-to-security-and-sovereignty/

Tracking

In 2020, the government adopted a measure that linked the RECS system to the efforts to combat the spread of COVID-19.[4501] A task force that included the Uganda Revenue Administration Commissioner General and the Uganda Trade Minister, set up to discuss how the RECS could trace the movement of trucks (and their drivers) in real-time across trade routes. The plans came about after a COVID-positive truck driver was intercepted at the border upon mandatory testing, a condition to clear Customs.

In 2021 the Ugandan government announced the plan to install GPS trackers on every vehicle in the country.[4502] The project would require the registration of all number plates for every public and private vehicle, water vessel, motorcycles (commonly known as 'Boda Bodas.'). This plan posed an evident risk to freedom of mobility as the government would potentially be able to track the whereabouts of a particular person at all times. In the original plan, the Ugandan government signed a Memorandum of Understanding and a 10-year agreement with the Russian firm Joint-stock Company Global Security, under a project dubbed "Intelligent Transport Monitoring System (ITMS).[4503] While the government presented these plans as an effort to curb the rampant transport kidnappings and robberies to aid during investigations, legal groups sued the government over these plans, and pleaded to the High Court to halt and restrain the implementation of the compulsory digital surveillance, due to privacy concerns.[4504] The lawsuit includes a request for explanations to the government regarding the adjudication of the contract to a foreign entity without due diligence. The government plans to deploy the systems in March 2023.

[4501] The Independent, *How URA Electronic Cargo Tracking System (RECTS) helped intercept truck driver who tested positive for COVID-19* (Apr. 16, 2020), https://www.independent.co.ug/how-ura-electronic-cargo-tracking-system-rects-helped-intercept-truck-driver-who-tested-positive-for-covid-19/

[4502] Elias Biryabarema, *Ugandan opposition, activists denounce digital car tracker plan*, Reuters, (Jul. 29, 2021), https://www.reuters.com/world/africa/ugandan-opposition-activists-denounce-digital-car-tracker-plan-2021-07-29/

[4503] Roger Bambino, *how the vehicle number plates tracking technology will work in Uganda and looming privacy concerns* (Jul. 26, 2021), https://techjaja.com/of-how-the-vehicle-number-plates-tracking-technology-will-work-in-uganda-and-looming-privacy-concerns/

[4504] Uganda Radio Network, *Court Petitioned Over Delays to Decide Case On Installation of Digital Trackers in Vehicles* (Feb. 26, 2023), https://ugandaradionetwork.net/story/court-petitioned-over-delays-to-decide-case-on-installation-of-digital-trackers-in-vehicles

Lethal Autonomous Weapons

The governance and control of Unmanned Aerial Systems (UAS), Remotely Piloted Aircraft Systems (RPAS), or drones, have been a concern of the Uganda authorities. In a report of 2019, the Uganda Civil Aviation Authority and Customs officials started awareness sessions about the threats that non-registered drones pose to national security.[4505] Uganda developed laws to regulate Remotely Piloted Aircraft Systems (RPAS) drones under the Civil Aviation Authority (CAA) (remotely piloted aircraft systems) Regulations, 2020 but is lacking a unified legal framework.[4506] Such a framework is in the draft stage in consultation with the Civil Aviation Safety and Security Oversight Agency (CASSOA). In 2021, the Uganda Communications Commission issued guidelines for the operation of remotely piloted aircraft (RPAS)/drones in Uganda.[4507]

In 2021, Uganda was part of the African Group which issued a joint statement calling for an international discussion on the "ethical, legal, moral and technical questions" raised by the use of autonomous weapons systems and urging concrete policy recommendations, including prohibitions and regulations.[4508]

Human Rights

According to the 2022 Freedom in the World Report, Uganda is not a free country in terms of human rights protection, with only a score of 34/100.[4509] Uganda's civil society and independent media sectors suffered from legal and extra-legal harassment and state violence. Increasing accusations of the overreach of the Executive over Judicial independence, as well as an increase in systemic corruption are the most salient conclusions of the Freedom House report.

[4505] Monitor, *251 drones held at Entebbe* (Jul. 5, 2019), https://www.monitor.co.ug/uganda/news/national/251-drones-held-at-entebbe-1835474

[4506] The Uganda Gazette Statutory, *Instruments 2020 No. 23. The Civil Aviation (Remotely Piloted Aircraft Systems) Regulations 2020* (Feb. 17, 2020) https://caa.go.ug/wp-content/uploads/2021/01/CAA-REMOTELY-PILOTED-AIRCRAFT SYSYTEMS.pdf

[4507] Uganda Communications Commission, *The Uganda Communications Commission Guidelines for Operation of Remotely Piloted Aircraft (RPAS)/Drones in Uganda* (Nov. 2021), https://www.ucc.co.ug/wp-content/uploads/2021/12/UCC-Guideline_Drones-Guidelines_2021.pdf

[4508] Statement by the African Group, *CCW Group of Governmental Experts meeting on LAWS* (Dec. 3, 2021), http://149.202.215.129:8080/s2t/UNOG/LAWS3-03-12-2021-AM_mp3_en.html

[4509] Freedom House, *Freedom in the World 2022,* https://freedomhouse.org/country/uganda/freedom-world/2022

The Ibrahim Index of African Governance in 2021 scores Uganda at 47.5/100 for overall governance, and 38.9/100 in Participation Rights & Inclusion, placing the country in position 31 out of 45 African countries, with a decreasing trend since 2012.[4510]

Uganda is a signatory of the Universal Declaration of Human Rights and has ratified various covenants including the International Convention on Civil and Political Rights (ICCPR) and International Covenant on Economic, Social and Cultural Rights (ICSECR).[4511] Uganda ratified the African Charter on Human and People's Rights in 1986.[4512] Chapter four (4) of the Constitution of Uganda of 1995 provides for the protection of fundamental rights and freedoms which include civic, economic, social, and political. Article 20 (1) of the Constitution stipulates that the fundamental rights and freedoms of individuals are inherent and not granted by the State.

In line with the Ugandan Constitution, the country has a Uganda Human Rights Commission, that monitors human rights violations.[4513] There is a Human Rights Committee in Parliament scrutinizing the work of the government, making recommendations aimed to improve human rights protection, and overseeing the National Action Plan on Human Rights.[4514]

Despite being a multiparty democracy, Uganda has had the same party(National Resistance Movement) and President for the last 35 years with fast-rising opposition to the incumbency.[4515] In the 2021 elections, media reports indicate that the political campaign was marred by killings, arrests, beatings, and disappearances by security forces, as well as harassment and intimidation of journalists.

[4510] Ibrahim Index of African Governance, *Uganda, 2021, Overall Governance,* https://iiag.online/data.html?loc=RW&meas=GOVERNANCE

[4511] International Justice Resource Center, *Country Factsheet Series- Uganda,* (Sept. 15, 2017), https://ijrcenter.org/wp-content/uploads/2017/11/Uganda.pdf

[4512] African Commission on Human and People's Rights, *Concluding Observations and Recommendations- Uganda: Periodic Reports. 2000-2006* (Nov. 15, 2006), https://www.achpr.org/sessions/concludingobservation?id=46#:~:text=The%20Republic%20of%20Uganda%20(Uganda,it%20on%2027%20May%201986.

[4513] Parliament of the Republic of Uganda, *Constitution of Republic of Uganda,* Article 52, (1995), https://www.parliament.go.ug/documents/1240/constitution

[4514] The Human Rights Centre Uganda, *Guide to Understanding the Parliamentary Standing Committee on Human Rights* (2013), https://www.hrcug.org/HRCU/file/Guide%20to%20Understanding%20the%20Parliamentary%20Committee%20on%20Human%20Rights.pdf

[4515] Daniel Mwesigwa, *Cameras, mobiles, radios – action!: Old surveillance tools in new robes in Uganda* (2019), https://giswatch.org/node/6194

The Human Rights Foundation's universal periodic review (UPR) report of Uganda in 2021[4516] found actions by the Uganda government such as ordering internet blackouts on the evening of elections of 2018. A five-day internet shutdown and blockage of social media, compounded by a government decision to replace a 200 shilling ($0.05) social media tax, with a 12 percent tax on internet data. In 2020, further regulations were adopted to restrict freedom of expression by levying fees on the use of online communication. In 2021, a new shutdown of social media services occurred close to the date of the elections. The UPR report exhorts the Ugandan government to ensure the protection of all individuals and cooperate with international human rights organizations and generate an internal dialogue toward peace.

Amnesty International highlighted in a 2022 report that freedom of expression has increasingly become constrained and civic space significantly narrowed as Human Rights defenders (HRDs) and organizations working on electoral accountability were particularly targeted for their work.[4517]

OECD / G20 AI Principles

Uganda is not a member of the OECD and is not a signatory to OECD AI Principles.[4518] The OECD AI Observatory reports that the 4IR strategy is aligned with two OECD AI principles: (1) Fostering a digital ecosystem for AI and (2) Providing and enabling policy environment for AI. However, no reports are available for implementation.[4519]

[4516] Human Rights Foundation, *Universal Periodic Review submission for Uganda* (Jul. 14, 2021), https://www.upr-info.org/sites/default/files/documents/2022-01/h.r.f_upr40_uga_e_main.pdf

[4517] Amnesty International, *Uganda: Guarantee Human rights AMNESTY International Submission for the UN Universal Periodic Review, 40TH Session of the UPR Working Group* (Jan.-Feb. 2022) https://www.amnesty.org/en/wp-content/uploads/2021/08/AFR5945392021ENGLISH.pdf

[4518] OECD, Forty-*two countries adopt new OECD Principles on Artificial Intelligence* (May 22, 2019), https://www.oecd.org/newsroom/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[4519] OECD AI, *Expert National Task Force on Fourth Industrial Revolution* (2019), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-27387

UNESCO Recommendation on the Ethics of Artificial Intelligence

Uganda is a member of UNESCO since 1962[4520] and is among the 193 member states that adopted the UNESCO Recommendation on the Ethics of AI.[4521]

According to the UNESCO AI Needs Assessment Survey in Africa, Uganda is one of the countries in Africa that had established AI as a priority in their national development plans. Initiatives of strategies and policies are underway, but legislation and ethical guidelines as well as the operation of Centers of Excellence are yet to be implemented. Uganda reported work in progress in the establishment of a legal framework and plans for education programs to introduce government officials to AI skills. Uganda has requested support from UNESCO to guide the development of AI at the national level.[4522]

Evaluation

Uganda's engagement at regional and international level as well as Uganda's 4IR strategy, 2019 Data Protection and Privacy Act, Vision 2040, and NDP III indicate the intent of the country to spearhead the digital transformation of the country. The 4IR strategy is a first step in the formulation of a dedicated AI policy and the 2019 Data Protection and Privacy Act provides for protection of data subjects' rights. However, the absence of a national AI strategy with a human-centered approach at its core and of data subjects' right to algorithmic transparency, as well as the lack of independence of the data protection authority create additional hurdles in tackling the widespread use of AI for surveillance purposes. Should Uganda take its commitment to the UNESCO Recommendation on the Ethics of AI seriously, the Recommendation could provide a template for regulating the deployment of AI in way that respects human rights.

[4520] UNESCO,. *Establishment of Uganda National Commission for UNESCO* (2023), https://unesco-uganda.ug/#:~:text=By%20virtue%20of%20Uganda's%20membership,on%20the%209th%20November%201962.
[4521] UNESCO, *Recommendation on the Ethics of Artificial Intelligence* (Nov. 2021), https://unesdoc.unesco.org/ark:/48223/pf0000380455
[4522] UNESCO, *Artificial Intelligence Needs Assessment Survey in Africa* (2021), https://unesdoc.unesco.org/ark:/48223/pf0000375322

United Arab Emirates

National AI Strategy

In 2017, the UAE became the first country in the world to appoint a Minister of State for Artificial Intelligence. H.E. Omar Al Olama was later appointed as Minister of State for Artificial Intelligence, Digital Economy and Remote Work Applications in July 2020.[4523] The responsibilities of the Ministry included enhancing the government performance levels by investing in the latest technologies of artificial intelligence and applying them in various sectors.

The UAE Cabinet formed the UAE Council for Artificial Intelligence (AI) and Blockchain to facilitate the implementation of AI policies, and oversee AI integration in government departments and the education sector.[4524] The Council is tasked with proposing policies to create an AI-friendly ecosystem, encourage advanced research in the sector and promote collaboration between the public and private sectors, including international institutions to accelerate the adoption of AI.[4525]

In October of this same year, the UAE Government launched the UAE Strategy for Artificial Intelligence (AI).[4526] The strategy aligned with UAE Centennial 2071,[4527] which has an ambitious goal to make the UAE the best country in the world by 2071. In the plan, AI will play a significant role in education, economy, government development, and community happiness through applications in various sectors, including energy, tourism, and education to name a few.

The National AI Strategy outlines eight strategic objectives: [4528]

1) Build a reputation as an AI destination.

[4523] UAE Artificial Intelligence Office, *Omar Sultan Al Olama has been appointed as Minister of State for Artificial Intelligence* (Oct. 20, 2017), https://ai.gov.ae/about/
[4524] UAE Artificial Intelligence Office, *UAE adopts formation of Council for Artificial Intelligence (*Mar. 5, 2018), https://ai.gov.ae/ai_council/
[4525] UAE's Government portal, *Artificial intelligence in government policies*, https://u.ae/en/about-the-uae/digital-uae/artificial-intelligence-in-government-policies
[4526] The United Arab Emirates' Government portal, *UAE Strategy for Artificial Intelligence,* (Jan. 2, 2023), https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/government-services-and-digital-transformation/uae-strategy-for-artificial-intelligence
[4527] The United Arab Emirates' Government portal, *UAE Centennial 2071*, (Nov. 24, 2022), https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/innovation-and-future-shaping/uae-centennial-2071
[4528] Artificial Intelligence Office, *UAE National Strategy for AI 2031*, https://ai.gov.ae/strategy/

2) Increase the UAE's competitive assets in priority sectors through the deployment of AI.
3) Develop a fertile ecosystem for AI.
4) Adopt AI across customer services to improve lives and government.
5) Attract and train talent for future jobs enabled by AI.
6) Bring world-leading research capability to work with target industries.
7) Provide the data and supporting infrastructure essential to become a test bed for AI.
8) Ensure strong governance and effective regulation."

The focus of the UAE AI guidelines is AI governance, Data governance, cybersecurity, and bias.

Government entities, such as the Digital Dubai Authority (DDA) followed the plans of the National AI Strategy, with specific strategies and guidance on AI. The Dubai Digital Authority published an AI Ethical impact assessment framework and established a governing AI ethics board, comprised of government policy, academic, legal, and industry experts to oversee and guide the strategic development of the AI Ethics Guidelines. The Dubai AI Ethics Guidelines describe the key principles of a fair, transparent, accountable, and explainable AI system.[4529] Launched in January 2019, the AI Principles and Guidelines for the Emirate of Dubai demonstrate Dubai's broader approach to ethical AI. Accompanying the Principles and Guidelines is an Ethical AI Self-Assessment Tool built to enable AI developers or operator organizations to evaluate the ethics level of an AI system.

The AI Ethics Guidelines provide an assessment (from proof of concept to production) of the ethical issues that may arise throughout the development process and how specific AI applications could be improved to ensure fairness, transparency, accountability, and explainability. The Ethical Toolkit also aims to ensure adoption of AI that optimizes the innovation potential, and delivers economic and social value. The Executive Council of Dubai directed government entities to use the principles and guidelines when considering AI development, and entities including the Road and Transport Authority and the Dubai Police have formally acknowledged their adoption of the self-assessment tool when developing AI.[4530]

[4529] Digital Dubai Authority, *AI Principles & Ethics*, (2022), https://www.digitaldubai.ae/initiatives/ai-principles-ethics
[4530] Ibid

The Federal government has set up The UAE National Program for Artificial Intelligence[4531] which is a comprehensive set of resources on advances in AI and Robotics. The program encompasses free courses for UAE residents to raise awareness and understanding of AI technologies.[4532] The government has endeavored to upskill the student population and government employees by providing relevant trainings to them.[4533]

Preceding the publication of the National AI Strategy, the UAE launched the Fourth Industrial Revolution (4IR) Strategy[4534]. The strategy encompasses six pillars:

1. The Human of the Future
2. The Security of the Future
3. The Experience of the Future
4. The Productivity of the Future
5. The Frontiers of the Future
6. The Foundations of the Future.

Innovations in robotics for healthcare are included in Pillar 1. Innovations in intelligent government services, intelligent cities, and next-gen mobility are in Pillar 2. 4IR policies and regulations to maintain the privacy and well-being of citizens, 4IR Values and Ethics are part of Pillar 6.

Public Participation

The UAE has a robust system of information and services for the public. The UAE Strategy for Government Services, Unified Digital Platform Policy, the Digital Participation Policy, and the Digital Customer and Digital Government Service Policy, aim to provide access to digital services.

The UAE Digital Participation Policy[4535] establishes what can be posted on the public platforms, the conditions to facilitate a healthy environment for sharing information, and enabling meaningful discussion on topics concerning the services of the UAE Digital Government and life in the UAE in general. The Sharik.AE platform set in 2022, is an interactive interface to keep the UAE public informed and seek consultations on

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[4531] Minister of State for Artificial Intelligence, Digital Economy and Remote Work Applications, *UAE National Strategy for Artificial Intelligence 2031*, *https://ai.gov.ae/strategy*
[4532] UAE Artificial Intelligence Office, *AI Summer Camp 4.0*, https://ai.gov.ae/camp/
[4533] UAE Artificial Intelligence Office, *Learn AI,* https://ai.gov.ae/learn/
[4534] WAM. *UAE launches strategy for Fourth Industrial Revolution.* (Sep 27, 2021). http://wam.ae/en/details/1395302634934
[4535] UAE, *Digital participation policy*, https://u.ae/en/footer/digital-participation-policy

matters of interest, related to government activities[4536]. Sharik.AE includes an interface for input for the co-creation of public services, community engagement, and participatory budget.

The UAE, through the Ministry of Artificial Intelligence, launched the "Think AI" initiative to develop legislation, policies, and initiatives for a responsible and efficient adoption of artificial intelligence (AI) within the private sector. "Think AI" established to facilitate a series of roundtables, workshops, and panel discussions with the participation of more than 100 government officials, representatives from the private sector, and experts from local and international organizations. The dialogue aimed to support the UAE's efforts to accelerate the adoption of artificial intelligence in key sectors such as infrastructure, governance and legislation to strengthen the position as a global hub for artificial intelligence.[4537]

The Ministry of AI of the UAE ensures public awareness and digital participation through a variety of initiatives. In 2022, the Fourth UAE AI Camp offered 7,750 participants training, workshop, and seminars in cooperation with the National Program of AI. The AI Summer Camp 5.0 scheduled for July 2023, will involve the largest gathering of webinars, workshops, training, and talks about Artificial Intelligence in the region.[4538]

At the emirate level, Digital Dubai has set a vision to make Dubai the happiest city on earth, through initiatives of government effectiveness, in G2C Government to Consumer and Government to Government (G2G) services[4539]. Dubai has a website with information about AI principles and ethics for public access. Dubai's Ethical AI Toolkit is particularly helpful for three main types of users: Government Entities, Private Sector Entities, and Individuals.[4540] The Digital Dubai Authority (DDA), introduced new methods of e-participation for the public on various issues including AI Ethics work.[4541]

[4536] U.AE *Consultations. Sharik.ae.* (2022). https://u.ae/en/participate/consultations

[4537] Nour Salman and Mohd Aamir, *UAE Government Launches "Think AI" Initiative*, WAM - Emirates News Agency, (Mar. 6, 2019),
http://wam.ae/en/details/1395302745072

[4538] Amjad Saleh, *Fourth UAE AI Camp concludes offering 7,750 participants invaluable knowledge*, WAM - The Emirates News Agency, (Aug. 28, 2022),
http://wam.ae/en/details/1395303078187

[4539] Digital Dubai Authority, *Vision.* (2023). https://www.digitaldubai.ae/

[4540] Digital Dubai Authority, *AI Principles and Ethics*,
https://www.digitaldubai.ae/initiatives/ai-principles-ethics

[4541] Digital Dubai Authority, *E-participation*, https://www.digitaldubai.ae/entities/e-participation

Data Protection

In November 2021, the UAE adopted sweeping legislative reforms, including the Personal Data Protection Law, and Federal Decree-Law No. 45/2021 on the Protection of Personal Data, modeled after the GDPR. The Personal Data Protection (PDD) Law has extraterritorial geographical effect and applies to data controllers and data processors within UAE or located outside of the UAE, processing personal data of UAE residents.[4542]. The draft of the PDD Law had the participation of 30 major technology companies and came into force in January 2022.[4543] Four principles underpin the Law:[4544]

1. Single Data Authority
2. Right for Consent
3. Incentivizing SMEs
4. Allows Cross Border Data Flow

Introduced by the Minister of AI as "the law with the lowest cost of compliance", the PDD Law is an integrated framework to ensure the confidentiality of information, protect the privacy of individuals, achieve proper governance for data management and data protection, in addition to defining the rights and duties of all concerned parties.[4545] The rights established in the PDD Law are the right of access to information, the right to request personal data portability, the right to rectification or erasure of personal data, right of processing and automated processing. The PDD Law also addresses Cross Border Data Transfer.[4546] The oversight is the responsibility of the UAE Data Office (DO), as the federal data regulator, overseeing policies, standards, and legislation, and responding to inquiries and complaints in regard to the PDD Law. The DO, affiliated with the Cabinet, is responsible for a wide range of tasks that include:[4547]

[4542] Minister of State for Artificial Intelligence, Digital Economy & Remote work applications, *Federal Decree Law No. 45/2021 on the Protection of Personal Data,* (Nov. 2021), https://ai.gov.ae/personal-data-protection-law/

[4543] UAE Government, *Data Protection Laws,* (n.d.), https://u.ae/en/about-the-uae/digital-uae/data/data-protection-laws

[4544] Minister of State for Artificial Intelligence, Digital Economy & Remote work applications, *Federal Decree Law No. 45/2021 on the Protection of Personal Data,* (Nov. 2021), https://ai.gov.ae/personal-data-protection-law/

[4545] Hassan Bashir, *UAE adopts largest legislative reform in its history,* WAM - Emirates News Agency, (Nov. 27, 2021), https://www.wam.ae/en/details/1395302997239

[4546] Minister of State for Artificial Intelligence, Digital Economy & Remote work applications. *Federal Decree Law No. 45/2021 on the Protection of Personal Data.* (Nov. 2021). https://ai.gov.ae/personal-data-protection-law/

[4547] U.AE Portal. *UAE Data Office,* (Mar, 2, 2023), https://u.ae/en/about-the-uae/digital-uae/data/data-protection-laws

(1) Preparing policies and legislations related to data protection,

(2) Proposing and approving the standards for monitoring the application of federal legislation regulating this field,

(3) Preparing and approving systems for complaints and grievances, and

(4) Issuing the necessary guidelines and instructions for the implementation of data protection legislation.

Provisions of the law include the prohibition of processing of personal data without the consent of its owner, with noted exceptions of protection of public interest, legal procedures and rights and previous knowledge by the data owner. The law defines the controls for the processing of personal data and sets the obligations of security, confidentiality, and privacy.

The law does not apply to government data, government authorities that control or process personal data, or personal data processed by the security and judicial authorities.[4548] The law also does not cover the processing of health, banking, and credit data which is subject to sector-specific legislation, and companies and institutions located in free zones which have specific data protection laws, such as the Dubai International Finance Centre (DIFC) and the Abu Dhabi Global Market (ADGM). Significant divergences with the GDPR, include the limited legal basis, with a focus on consent as the primary legal basis, and less comprehensive transparency requirements.[4549] Less onerous transparency requirements (only certain limited information will be required before processing) and no specific privacy notice requirement.

Other UAE laws that provide general rights to privacy include:

1. The UAE Constitution: Addresses privacy in that freedom of communication by post or other means of communication and the secrecy thereof is guaranteed in accordance with the law;[4550]

[4548] Al Tamini, *UAE's New Federal Data Protection Law,* (Dec. 6, 2021), https://www.tamimi.com/news/uaes-new-federal-data-protection-law/

[4549] Latham and Watkins, *UAE Publishes First Data Protection* Law, (Dec. 14, 2021), https://www.globalprivacyblog.com/legislative-regulatory-developments/uae-publishes-first-federal-data-protection-law/

[4550] Constitute Project, *United Arab Emirates's Constitution of 1971 with Amendments through 2004*, (2002), https://www.constituteproject.org/constitution/United_Arab_Emirates_2004.pdf

2. The UAE Penal Code: Prohibits those who have access to an individual's personal data from disclosing or publicizing that information;[4551]

3. The Cyber Crimes Law: (Federal Law No. 5 of 2012 relating to Combating Information Technology Crimes, as amended by Federal No. 12 of 2016 and Decree No. 2 of 2018) prohibits invading the privacy of another person via technological means, without their consent.[4552]

4. The Federal Decree-Law No.34 of 2021 on Combatting Rumors and Cybercrime. Article (6) of Law 34, criminalizes the misuse of the personal data of others.[4553]

UAE has not yet sponsored the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence,[4554] the 2020 Resolution on Accountability in the Development and Use of Artificial Intelligence,[4555] or the 2022 GPA Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology.[4556]

Algorithmic Transparency

While the UAE regulations do not include a specific law on algorithmic transparency, notable in the PDD Law is Article 18, which addresses automated decision,[4557] giving data subjects the right to object

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[4551] The Penal Code of UAE, *Federal Law No. 3 of 1987*, DataGuidance, (Jan 4, 2018), https://www.dataguidance.com/legal-research/federal-law-no-3-1987-penal-code

[4552] U.AE, *Cyber Laws*, https://u.ae/en/resources/laws

[4553] Federal Decree-Law No.34 of 2021, *Article (6) Attack on personal data and information*, https://laws.uaecabinet.ae/ar/materials/law/1526

[4554] International Conference of Data Protection & Privacy Commissioners, *Declaration on Ethics and Data Protection in Artificial Intelligence*, Oct. 23, 2018. https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[4555] Global Privacy Assembly (GPA), *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence,* (Oct 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[4556] Global Privacy Assembly (GPA), *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology,* (Oct 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[4557] Minister of State for Artificial Intelligence, Digital Economy & Remote work applications, *Federal Decree Law No. 45/2021 on the Protection of Personal Data,* (Nov. 2021), https://ai.gov.ae/personal-data-protection-law/

automated decision-making that may impact them, including profiling, with some exceptions given other laws of the UAE.[4558]

The UAE's Artificial Intelligence Guide[4559] issued by the Ministry of AI in 2020, addresses the subject of AI transparency in several sections of the document. Section 3.4 describes the principles established in the Ethical AI Toolkit of the Smart Dubai Office, by which systems should be ethical, fair, accountable, transparent, explainable, safe, secure, and 'serve to protect humanity. The AI Guide highlights the Smart Dubai ethical self-assessment tool for government companies, private firms, and individuals.

The UAE AI Guide includes a restatement of the focused efforts of the UAE in removing Bias in the algorithms of AI systems. Section 3.5 of the AI guide includes examples and case studies to avoid the perpetuation of racial and gender bias. The recommendations include the implementation of evaluations of the decision-making process based on AI for fairness and posing the question "Should we build AI." [4560]

Facial Recognition

The UAE's digital transformation has led to the adoption of an AI-powered facial recognition system. In 2021, the UAE Government announced the enhancement of the UAE Pass, by adding biometric face recognition systems (Facial ID) to register users into the application.[4561] The integration of facial recognition was set to reduce the transaction time from 20 minutes to 5 minutes.

In November 2022, Abu Dhabi Airports replaced passport checks with facial recognition technology.[4562] Biometric data is used to check in travelers, clear immigration, access lounges, and board their flights. The first phase of the project took place at one of the terminals at Abu Dhabi

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[4558] Baker McKenzie,. *Global Data Privacy & Security Handbook UAE.* (2022), https://resourcehub.bakermckenzie.com/en/resources/data-privacy-security/emea/uae/topics/profiling-and-automated-decision-making#:~:text=Yes.,the%20data%20subject%2C%20including%20profiling

[4559] Ministry of Artificial Intelligence of the UAE, *UAE AI Guide,* (2020), https://ai.gov.ae/wp-content/uploads/2020/02/AIGuide_EN_v1-online.pdf

[4560] Ibid

[4561] Esraa Ismail and Tariq Alfaham, *UAE Government to employ biometric face recognition to register customers under 'UAE Pass' app, UAE Government Launches "Think AI" Initiative*, WAM - Emirates News Agency, (Apr. 7, 2021), https://wam.ae/en/details/1395302925206

[4562] Seema, *At Abu Dhabi International Airport, face recognition technology will replace passport checks*, Abu Dhabi Guide, (Nov. 4, 2022), https://abudhabiguide.ae/at-abu-dhabi-international-airport-face-recognition-technology-will-replace-passport-checks/?utm_source=rss&utm_medium=rss&utm_campaign=at-abu-dhabi-international-airport-face-recognition- technology-will-replace-passport-checks

International Airport at the United States Customs and Border Protection (CBP) facility. The Managing Director and CEO of Abu Dhabi Airports presented this innovation as the "first of its kind in the UAE and the world, to further enhance our passenger journey."[4563]

The Railway Transport Agency (RTA) commenced the use of emotional AI for tram drivers. Drivers wear armbands to detect heart rate, speech patterns, and reaction times to determine driving style, and deviations, based on drivers' profiles.[4564] Dubai Police introduced Giath vehicles, equipped with a 360-degree camera backed with facial and plate recognition technology. The system includes drones to extend surveillance outreach.[4565]

Plans are underway for the use of face biometric payments by Carrefour, the hypermarket chain operating in the UAE, in a partnership with the US-based biometric PopID.[4566] The Face Pay biometric system is set to be piloted in selected stores in Dubai. PopID presents this payment method as an innovation for "superior customer experience and (…) robust security protocols. Carrefour faced legal pushback in the EU amid the use of biometric data collection systems for payments at the register without user consent in 2020.[4567]

Biometric Identification

The UAE Pass, launched in 2018, is the first digital national ID for citizens and residents, to access 6,000 government services and to sign documents digitally.[4568] The App was developed in cooperation between Digital Dubai, Telecommunications and Digital Government Regulatory

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[4563] WAM, *Abu Dhabi Airports gears to launch advanced biometric technology with touchless boarding,* (Nov 2, 2022), http://wam.ae/en/details/1395303097484

[4564] Roads and Transport Authority, *Using Emotional AI to assess Tram drivers in real-time*, (Oct. 30, 2022) https://www.rta.ae/wps/portal/rta/ae/home/news-and-media/all-news/NewsDetails/using-emotional-ai-to-assess- tram-drivers-in-real-time

[4565] Eric Weiss, *Dubai Police Unveil Biometric Surveillance Cars*, Find Biometrics, (Mar. 16, 2022), https://findbiometrics.com/dubai-police- unveil-biometric-surveillance-cars-031604/

[4566] Alessandro Mascellino, *PopID announces big customer deployment for face biometric payments in the UAE,* (Feb 13, 2022), https://www.biometricupdate.com/202302/popid-announces-big-customer-deployment-for-face-biometric-payments-in-uae

[4567] Luana Pascu, *Belgian Data Protection Authority warns supermarket chain Carrefour about biometric data collection,* (Jan 16, 2020), https://www.biometricupdate.com/202001/belgian-data-protection-authority-warns-supermarket-chain-carrefour-about-biometric-data-collection

[4568] U.AE, *What is the UAE Pass?* (2022), https://u.ae/en/about-the-uae/digital-uae/the-uae-pass-app

Authority (TDRA), and Abu Dhabi Digital Authority. By 2022 the number of people registered on the UAE Pass app is over 1.38 million, including 628,000 individuals with verified accounts. The system includes a Digital vault that stores digital documentation and enhances the seamless completion of government transactions. The system has Blockchain technology to improve traceability and security.

The UAE Pass aligns with the protection of privacy and digital identity provisions outlined in the Federal Decree Law No 34 of 2021 on Combatting Rumors and Cybercrime,[4569] and in the Electronic Transactions and Trust Services Law.[4570]

Mass Surveillance

In 2017 the Dubai Police released the 2018-31 strategic plan for artificial intelligence.[4571] The plan includes the use of AI techniques in criminal forensic investigation , and in police operations to predict crimes. AI techniques were set to forecast crime, crowd management, to enhance traffic safety and road security, and crisis and disaster management.

In 2018, Dubai Police announced the launch of Oyoon, an artificial intelligence surveillance program,[4572] that had the support of the government, semi-government, and private sector entities, intended to "provide a safer living experience." [4573] The system operates through tens of thousands of cameras with facial recognition software and microphones.

[4569] WAM, *Public Prosecution explains penalties of fake e-mails, websites, online accounts*, (Mar 22, 2022), http://wam.ae/en/details/1395303032222

[4570] Telecommunications and Digital Governmen Regulatory Authority, *Electronic Transactions and Trust Services Law (Ara)*, (2021), https://tdra.gov.ae/-/media/About/LEGAL-REFERENCES/LAW/LAW-English/Electronic-Transactions-and-trust-sevices-law-AR.ashx

[4571] Priyankar Bhunia, *Dubai Police Releases 2018-31 Strategic Plan for Artificial Intelligence*, OpenGovAsia, (Dec. 21, 2017), https://opengovasia.com/dubai-police-releases-2018-31-strategic-plan-for-artificial-intelligence/

[4572] Dubai Police General HQ, *Dubai Police launch "Oyoon" AI Surveillance Programme,* (Jan. 28, 2018), https://www.dubaipolice.gov.ae/wps/portal/home/search/!ut/p/z1/04_Sj9CPykssy0xPLMnMz0vMAfIjo8zi_T29HQ2NvA18LQJNTQwCPUIN_Hy8QowMTIz0w8EKDHAARwP9KEL6o1CVuJt4OxkEuoZa-IX4-BsZGBhBFeCxIjg1T78gN8Igy8RREQC7VCIU/?1dmy&urile=wcm%3apath%3a/wps/wcm/connect/DubaiPolice_en/DubaiPolice/Media-Center/News/A70

[4573] Gulf Business, *Dubai Police launches AI surveillance programme,* (Jan 28, 2018), https://gulfbusiness.com/dubai-police-launches-ai-surveillance-programme/

to track and analyze the movements of suspected would-be thieves. The system would give verbal warnings before the commitment of the crime.[4574]

Abu Dhabi Monitoring and Control Center (ADMCC) had released the Falcon Eye system in 2016. The Falcon Eye system operated with a live feed to thousands of cameras installed in key locations, to "observe events and monitor and limit violations."[4575]

Human Rights Watch reported the use of advanced mass surveillance technologies "to pervasively monitor public spaces, internet activity, and even individuals' phones and computers, in violation of their right to privacy, freedom of expression, association, and other rights."[4576]

Lethal Autonomous Weapons

UAE is one of 126 High-Contracting Parties in the Convention of Certain Conventional Weapons (CCW) and endorsed Protocol I (on Certain Conventional Weapons), III, and IV (Explosive Remnants of War).[4577]

UAE, as a member of the Non-Aligned Movement (NAM), supported the negotiation of a legally binding instrument on autonomous weapons systems to ensure that the weapons respect human rights and remain accountable.[4578]

Human Rights

The UAE signed the Universal Declaration of Human Rights (UDHR). UAE has not ratified any binding agreements such as the International Covenant on Civil and Political Rights (ICCPR) or the International Covenant on Economic Social and Cultural Rights

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[4574] Human Rights Watch, *UAE: Tolerance Narrative a Sham: Censorship; Surveillance; Prison or Barred Entry for Critics*, (Oct. 1, 2021), https://www.hrw.org/news/2021/10/01/uae-tolerance-narrative-sham-0

[4575] WAM, *Abu Dhabi Monitoring and Control Centre launches "Falcon Eye" system in Abu Dhabi,* (Jul 13, 2016), http://wam.ae/en/details/1395297714914

[4576] Human Rights Watch, *UAE: Events of 2022,* https://www.hrw.org/world-report/2023/country-chapters/united-arab-emirates#:~:text=The%20UAE%20deploys%20some%20of,%2C%20association%2C%20and%20other%20rights

[4577] United Nations, *High ContractinH Parties and Signatories, CCCW,* Office for Disarmament Affairs, https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/high-contracting-parties-and-signatories-ccw/

[4578] United Nations, Office of Disarmament Affairs, *Convention on Prohibition or Restriction on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects* (2021), https://documents.unoda.org/wp-content/uploads/2020/07/CCW_GGE1_2020_WP_7-ADVANCE.pdf.

(ICESCR)[4579] nor withdrawn existing reservations or declarations. The Universal Periodic Review (UPR) of the UAE in 2018, noted the transparent and gradualist approach of the UAE to align legislative and administrative norms with the commitments to human rights protection.[4580] Recommendations of the report related to the implementation of mechanisms, laws, and regulations to protect human rights, in line with international developments. A voluntary pledge of the UAE related to the engagement with UN human rights agencies, formulating a national human rights plan, protect labor rights, and pursuing SDGs.

The Freedom House scored UAE 17/100 concerning political rights and civil liberties, and rated the country "Not Free." [4581] Freedom house reports the ban of political parties in UAE and the concentration of all executive, legislative, and judicial authority with the Rulers of the seven emirates. Civil liberties arbitrary arrests, limits to freedom of speech, torture and ill-treatment of prisoners trials without legal representation and citizenship revocation and deportations without legitimate reasons are among areas of concern reported by Human Rights Watch.[4582]

OECD / G20 AI Principles

The UAE is not a member of the OECD and has not endorsed the OECD AI Principles[4583], but engages with OECD as member of the Development Assistance Committee (DAC). UAE was the first participant of the DAC since July 2014 upon OECD's invitation.[4584]

[4579] OHCHR, *National Report submitted in accordance with paragraph 15(A) of the annex to Human Rights Council Resolution 5/1. United Arab Emirates,* https://documents-dds-ny.un.org/doc/UNDOC/GEN/G17/338/81/PDF/G1733881.pdf?OpenElement

[4580] OHCHR,. *National Report submitted in accordance with paragraph 15(A) of the annex to Human Rights Council Resolution 5/1, United Arab Emirates.* https://documents-dds-ny.un.org/doc/UNDOC/GEN/G17/338/81/PDF/G1733881.pdf?OpenElement

[4581] Freedom House, *United Arab Emirates: Freedom in the World 2022 Country Report,* https://freedomhouse.org/country/united-arab-emirates/freedom-world/2022

[4582] Human Rights Watch, *World Report 2023- UAE,* (2023), https://www.hrw.org/world-report/2023/country-chapters/united-arab-emirates#:~:text=Scores%20of%20activists%2C%20academics%2C%20and,cell%20for%20a%20sixth%20year.

[4583] OECD. *Forty-two countries adopt new OECD Principles on Artificial intelligence.* (May 22, 2019). https://www.oecd.org/science/forty-two-countries-adopt-new-oecd-principles-on-artificial-intelligence.htm

[4584] OECD, *The United Arab Emirates becomes the first Participant in the OECD Development Assistance Committee (DAC)*, (1 July 2014), https://www.oecd.org/development/dac-global-relations/uae-participant-dac.htm

The OECD.AI Observatory reports on the efforts of the UAE in governance, through the enactment of the UAE National AI Strategy. The strategy addresses the OECD AI principles of (1) inclusive growth, sustainable development, and well-being; (2) fostering a digital ecosystem for AI, and (3) building human capacity and preparing for labor market transition.[4585] The OECD also acknowledges the AI principles and ethics for the Emirates of Dubai[4586], and the Data Protection Law, as two specific actions of guidance and regulation of AI mapping to OECD AI principles.

UNESCO Recommendation on the Ethics of Artificial Intelligence

The UAE is a UNESCO member since 1972, only one year after their foundation as a country. UAE was among the 193 member states that endorsed the UNESCO Recommendations on the Ethics of AI.[4587] The pact promotes human rights and contributes to the accomplishment of the Sustainable Development Goals, encompassing chapters on data governance, education, culture, employment, health, and the economy, addressing issues of transparency, accountability, and privacy.[4588]

Progress in the implementation of the UNESCO Recommendations is evident in the 2020 report of UAE about the National Strategy for AI.[4589] The report highlighted the impact of the strategy on the increasing number of initiatives for AI start-ups in Abu Dhabi, Dubai, and Sharjah. The AI oversight through is under two entities: (1) the Digital Dubai Authority (DDA) ensuring the adoption of the Dubai AI Ethics Guidelines and the accompanying Ethical AI Self-Assessment Tool. . (2)The UAE Artificial Intelligence and Blockchain Council, overseeing the implementation of AI technology in society and across government.[4590]

[4585] OECD.AI, *UAE National Strategy for AI,* (2019), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-25387

[4586] OECD.AI, *AI Principles and Ethics for the Emirate of Dubai,* (2019), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26783

[4587] UNESCO, *UNESCO Member States Adopt the First Ever Global Agreement On the Ethics Of Artificial Intelligence* (Nov. 25, 2021), https://en.unesco.org/news/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence.

[4588] UNESCO, *Recommendation on the Ethics of Artificial Intelligence,* (Nov. 23, 2021), https://unesdoc.unesco.org/ark:/48223/pf0000381137

[4589] UNESCO. *National Strategy 2031 and the National Program for Artificial Intelligence.* (2020). https://en.unesco.org/creativity/policy-monitoring-platform/national-ai-strategy-2031

[4590] UAE Council for Artificial Intelligence and Blockchain, https://ai.gov.ae/ai_council/

The Dubai AI Ethics Guidelines, though not explicitly, maps the UNESCO recommendations, as follows:[4591]

Policy Area 1: Ethical Impact Assessment –covered by the Dubai AI Ethics Guidelines (DAEG) and the accompanying Ethical AI Self-Assessment Tool by the DDA.

Policy Area 2: Ethical Governance and Stewardship & Principles – accountable, explainable and transparent. All three are set out in the DAEG.

AI Oversight Board – AI Ethics Advisory Board created by the Dubai Digital Authority.

Evaluation

The UAE stands out as the first country with a Ministry of AI, signaling the foresight of the country regarding the impact of artificial intelligence in the lives of its citizens. The release of the National Strategy of AI in 2017, and the establishment of an AI Council, are concrete efforts toward AI governance. The Dubai AI Ethics Guidelines and the accompanying Ethical AI Self-Assessment Tool are pioneering tools, aligned with the UNESCO Recommendations on the Ethics of Artificial Intelligence. The UAE has a Personal Data Protection Law that regulates automated decision-making, and a Data Protection Office, although the right to algorithmic transparency has still to be adopted. Calls for reinforcing the safeguards for human rights are increasing and so are mass surveillance practices which remain without proper regulation or oversight.

[4591] UNESCO, *Implementation of the Recommendation on the Ethics of Artificial Intelligence (AI)*, (Oct. 7, 2022), https://unesdoc.unesco.org/ark:/48223/pf0000382931

United Kingdom

National AI Strategy

      In September 2021, the United Kingdom (UK) launched its first National Artificial Intelligence (AI) Strategy.[4592] The National Strategy followed other roadmaps including the National Data Strategy (2020), a Plan for Digital Regulation (2021) and the UK Innovation Strategy (2021). The UK is ranked third in the world for research and innovation in AI but eleventh for their ability to realize innovation and impact from it. The AI Strategy sets out a ten-year plan with the vision, "to remain an AI and science superpower fit for the next decade." The UK AI Strategy has three main pillars: (1) investing and planning for the long-term requirements of the UK's AI ecosystem; (2) supporting the transition to an AI-enabled economy across all sectors and regions of the UK; and (3) ensuring that the UK gets the national and international governance of AI technologies right in order to encourage innovation, investment and protect the public and the country's fundamental values. With regard to the third pillar, the government proclaimed its intention to develop the most trusted and pro-innovation system for AI governance in the world, aiming to "harness the benefits of AI as we embed our values such as fairness, openness, liberty, security, democracy, rule of law, and respect for human rights."

      In July 2022, the UK government released both an AI Regulation Policy Paper,[4593] put forward by the Department for Digital, Culture, Media and Sport (DCMS), and an updated AI Action Plan,[4594] released jointly by DCMS and the Department for Business, Energy and Industrial Strategy (BEIS), which at the time jointly administered the government's Office for Artificial Intelligence.[4595] These policy updates clarifies that UK government departments would share oversight for AI systems and their consequences across the regulatory structures that exist within those departments. For example, healthcare-related AI systems would be

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[4592] UK Govt, *National AI Strategy* (Sept. 2021), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1020402/National_AI_Strategy_-_PDF_version.pdf

[4593] UK Govt, *Establishing a pro-innovation approach to regulating AI: AI Regulation Policy Paper* (July, 2022), https://www.gov.uk/government/publications/establishing-a-pro-innovation-approach-to-regulating-ai/establishing-a-pro-innovation-approach-to-regulating-ai-policy-statement.

[4594] UK Govt, *National AI Strategy: AI Action Plan* (July, 2022), https://www.gov.uk/government/publications/national-ai-strategy-ai-action-plan/national-ai-strategy-ai-action-plan

[4595] OECD.AI, Sana Khareghani, *Head - UK Office for AI*, https://oecd.ai/en/community/sana-khareghani

regulated by the UK Department of Health & Social Care (DHSC), while broadcasting-related AI systems would be overseen by Ofcom, the UK's communications regulator.[4596] The policy paper highlights the role of a new regulatory advisory office, the Digital Regulation Cooperation Forum (DRCF), formed in July 2020 as a coordinating body convening regulators from the Information Commissioner's Office (ICO), the Competition and Markets Authority (CMA), the Financial Conduct Authority (FCA) and Ofcom, to ensure "coherence" across regulations.[4597]

The AI Regulation Policy Paper prioritizes the government's intention to develop regulations which meet core principles of being: "context-specific," "pro-innovation and risk-based," "coherent," and "proportionate and adaptable."[4598] While strongly endorsing continued AI innovation and investment, the Policy Paper emphasizes, "the success of our AI ecosystem is in part down to the UK's reputation for the quality of its regulators and its rule of law. This includes the transparency of the UK's regulatory regime, the detailed scrutiny that proposed regulation receives and comprehensive impact assessments….To maintain our leading regulatory approach, we must make sure that the rules that govern the development and use of AI keep pace with the evolving implications of the technologies."

The UK's cross-sectoral regulatory policies will "initially" be placed on a "non-statutory footing…so that we can monitor, evaluate and if necessary update our approach and so that it remains agile enough to respond to the rapid pace of change in the way that AI impacts upon society."[4599] In place of enacting laws to govern AI, the DCMS stated, "regulators will lead the process of identifying, assessing, prioritizing and contextualizing the specific risks addressed by the [stated] principles... These principles provide clear steers for regulators, but will not necessarily

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[4596] UK Govt, *National AI Strategy: AI Action Plan* (July, 2022), https://www.gov.uk/government/publications/national-ai-strategy-ai-action-plan/national-ai-strategy-ai-action-plan.

[4597] UK Govt, *Digital Regulation Cooperation Forum: Plan of Work for 2021 to 2022* (March, 2021), https://www.gov.uk/government/publications/digital-regulation-cooperation-forum-workplan-202122/digital-regulation-cooperation-forum-plan-of-work-for-2021-to-2022.

[4598] UK Govt, *Establishing a pro-innovation approach to regulating AI: AI Regulation Policy Paper* (July, 2022), https://www.gov.uk/government/publications/establishing-a-pro-innovation-approach-to-regulating-ai/establishing-a-pro-innovation-approach-to-regulating-ai-policy-statement.

[4599] UK Govt, *Establishing a pro-innovation approach to regulating AI: AI Regulation Policy Paper* (July, 2022), https://www.gov.uk/government/publications/establishing-a-pro-innovation-approach-to-regulating-ai/establishing-a-pro-innovation-approach-to-regulating-ai-policy-statement.

translate into mandatory obligations. Indeed we will encourage regulators to consider lighter touch options in the first instances – for example, through a voluntary or guidance-based approach for uses of AI that fall within their remit."[4600]

Regarding its proposed cross-sectoral, non-statutory governmental oversight of AI, the DCMS acknowledged, "Regulatory coordination will be important for our approach to work and to avoid contradictory or very different approaches across regulators… We will look for ways to support collaboration between regulators to ensure a streamlined approach….We also need to ensure that UK regulators have access to the right skills and expertise to effectively regulate AI."[4601]

The UK AI Action Plan for its part updated progress that had been made regarding the three pillars of focus mentioned within the original National AI Strategy: long term investments in AI; ensuring AI benefits all sectors and regions; governing AI effectively.[4602] Regarding governance, the AI Action Plan described a variety of recent regulatory tools and initiatives in keeping with the UK's policy of cross-sectoral responsibility for AI oversight including:

- "one of the world's first national algorithmic transparency standards to strengthen the UK's position as a world leader in AI governance" developed within the Cabinet office;
- an "AI Assurance Roadmap, to provide meaningful information about AI systems to users and regulators" developed by the UK Centre for Data Ethics and Innovation (CDEI);
- an "AI Standards Hub… to coordinate UK engagement in AI standardization globally" led by The Alan Turing Institute and supported by the British Standards Institution and the National Physical Laboratory;

[4600] UK Govt, *Establishing a pro-innovation approach to regulating AI: AI Regulation Policy Paper* (July, 2022), https://www.gov.uk/government/publications/establishing-a-pro-innovation-approach-to-regulating-ai/establishing-a-pro-innovation-approach-to-regulating-ai-policy-statement.

[4601] UK Govt, *Establishing a pro-innovation approach to regulating AI: AI Regulation Policy Paper* (July, 2022), https://www.gov.uk/government/publications/establishing-a-pro-innovation-approach-to-regulating-ai/establishing-a-pro-innovation-approach-to-regulating-ai-policy-statement.

[4602] UK Govt, *National AI Strategy: AI Action Plan* (July, 2022), https://www.gov.uk/government/publications/national-ai-strategy-ai-action-plan/national-ai-strategy-ai-action-plan.

- and a formal consultation on "reforming the UK's data protection regime" led by DCMS.[4603] Regarding the UK's coordination on AI governance with key international organizations, the AI Action Plan highlights collaboration between UK government regulators and the G7, OECD, Council of Europe, UNESCO, the Future Tech Forum and the Global Partnership on AI.[4604]

The AI Action Plan provides additional regulatory updates with a clear ethical focus including:

- a policy statement from the Ministry of Defence (MOD), "Ambitious, Safe, Responsible: Our approach to the delivery of AI-enabled capability… detailing how they will augment [MOD's] robust and long-standing approach to legal, ethical and safety issues to address challenges related to the use of AI technology;"[4605]

- the UK government's Arts and Humanities Research Council, part of the UK Research and Innovation Agency (UKRI) launched "a major research program on AI ethics and regulation with its collaboration partner, the Ada Lovelace Institute;[4606]

- the Department of Health and Social Care (DHSC) published a report in coordination with the Ada Lovelace Institute detailing ethical and governance issues related to personal data and algorithms within the healthcare context with advice to regulators within that domain.[4607]

In September, 2022, the Digital Regulation Cooperation Forum (DRCF) published a report detailing the challenges presented by algorithmic processing tools for regulators across government agencies. The report identified the UK government regulators' shared objectives to: "protect individuals from harm; uphold individual rights; enable participation in online markets; encourage consumer trust and innovation;

[4603] UK Govt, *National AI Strategy: AI Action Plan* (July, 2022), https://www.gov.uk/government/publications/national-ai-strategy-ai-action-plan/national-ai-strategy-ai-action-plan.
[4604] UK Govt, *National AI Strategy: AI Action Plan* (July, 2022), https://www.gov.uk/government/publications/national-ai-strategy-ai-action-plan/national-ai-strategy-ai-action-plan.
[4605] UK Govt, *Ambitious, safe, responsible: our approach to the delivery of AI-enabled capability in Defense* (June, 2022), https://www.gov.uk/government/publications/ambitious-safe-responsible-our-approach-to-the-delivery-of-ai-enabled-capability-in-defence/ambitious-safe-responsible-our-approach-to-the-delivery-of-ai-enabled-capability-in-defence.
[4606] UK Research and Innovation, *£8.5 million programme to transform AI ethics and regulation* (June, 2022), https://www.ukri.org/news/8-5-million-programme-to-transform-ai-ethics-and-regulation/.
[4607] Ada Lovelace Institute, *Algorithmic impact assessment: a case study in healthcare* (Feb. 2022), https://www.adalovelaceinstitute.org/report/algorithmic-impact-assessment-case-study-healthcare/.

promote effective competition; promote resilient infrastructure and systems."[4608]

In February, 2023, the UK Prime Minister's Office announced the creation of a dedicated Department for Science, Innovation and Technology, which would henceforth house the Office for Artificial Intelligence (formerly co-housed by DCMS and BEIS).[4609] In March, 2023, this newly created department released a Science and Technology Framework[4610], reiterating the government's commitment to "a system of regulation and standards that is pro-innovation, easy to navigate and facilitates widespread commercial science and technology applications….Regulation covering critical technologies will be world-leading… We will play an active role in the WTO, G7, G20, OECD, NATO, Council of Europe, Commonwealth, and the UN…[as an] author of international rules and conventions for critical technologies."[4611]

In March 2023, the Department of Science and Technology published a statement[4612] following the Chancellor of the Exchequer's announcement that the government's new budget would commit £3.5 billion "to support the government's ambitions to make the UK a scientific and technologic superpower." The Department of Science and Technology reiterated the intention of the government to provide, "a new approach to AI regulation, focusing on the applications of AI rather than setting rigid rules for products with an AI component, and announced plans for the government "to begin working at pace to lead the way in clarifying the application of intellectual property law regarding generative AI."

[4608] UK Digital Regulation Cooperation Forum, *The benefits and harms of algorithms: a shared perspective from the four digital regulators* (Sept. 2022), https://www.gov.uk/government/publications/findings-from-the-drcf-algorithmic-processing-workstream-spring-2022/the-benefits-and-harms-of-algorithms-a-shared-perspective-from-the-four-digital-regulators#implications-for-regulators.

[4609] UK PM Office, *Making government deliver for the British people* (Feb. 2022), https://www.gov.uk/government/news/making-government-deliver-for-the-british-people.

[4610] UK Dept for Science, *Innovation and Technology, Science and Technology Framework* (March, 2023), https://www.gov.uk/government/publications/uk-science-and-technology-framework.

[4611] UK Dept for Science, *Innovation and Technology, Science and Technology Framework* (March, 2023), https://www.gov.uk/government/publications/uk-science-and-technology-framework.

[4612] UK Dept for Science, *Innovation and Technology, Government commits up to £3.5 billion to future of tech and science* (March, 2023), https://www.gov.uk/government/news/government-commits-up-to-35-billion-to-future-of-tech-and-science.

Public Participation

The UK government has a firmly-established practice of making draft policies available to the public for consultation and of providing the public with access to the findings gleaned from consultation.[4613] In 2018, the UK Cabinet Office published revised consultation principles,[4614] pledging to "use more digital methods to consult with a wider group of people at an earlier stage in the policy-forming process. We will make it easier for the public to contribute their views, and we will try harder to use clear language and plain English in consultation documents."[4615] As a relevant example, the Online Harms White Paper[4616] was released for public consultation by DCMS in 2019, resulting in "2400 responses ranging from companies in the technology industry including large tech giants and small and medium sized enterprises, academics, think tanks, children's charities, rights groups, publishers, governmental organizations and individuals." The government provided an overview of consultation responses, and enumerated the links between the revised policy proposals and the input obtained during public consultation.[4617] A revised Online Safety Bill was released to the public in January 2023, with key provisions aimed at preventing online exploitation, particularly of children and vulnerable adults, and to bolster responsible journalism.[4618] As of publication, this bill has not yet been ratified by Parliament.[4619]

Following publication of the AI Regulation Policy Paper in July 2022, DCMS provided a ten-week period for "views and evidence" from "stakeholders… about how the UK can best set the rules for regulating AI in a way that drives innovation and growth while also protecting our fundamental values. This will inform the forthcoming white paper."[4620] As

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[4613] Gov.UK, *Government Activity: Get Involved* (March, 2023), https://www.gov.uk/government/get-involved#engage-with-government.

[4614] UK Govt Cabinet Office, *Consultation principles: guidance* (July, 2012), Consultation principles: guidance - GOV.UK (www.gov.uk).

[4615] UK Govt Cabinet Office, *Consultation principles: guidance* (July, 2012), Consultation principles: guidance - GOV.UK (www.gov.uk).

[4616] UK Govt DCMS, *Online Harms White Paper* (April 2019), https://www.gov.uk/government/consultations/online-harms-white-paper].

[4617] UK Govt DCMS, *Online Harms White Paper Consultations: Full Government Response* (Dec, 2020) https://www.gov.uk/government/consultations/online-harms-white-paper/outcome/online-harms-white-paper-full-government-response.

[4618] UK Dept for Science, Innovation and Technology and DCMS, *Online safety bill* (Jan, 2023), https://www.gov.uk/government/collections/online-safety-bill.

[4619] UK Parliament, *Online Safety Bill* (March, 2023), https://bills.parliament.uk/bills/3137.

[4620] UK Govt, *Establishing a pro-innovation approach to regulating AI: AI Regulation Policy Paper* (July, 2022), https://www.gov.uk/government/publications/establishing-a-

of the date of this publication, the updated white paper has yet to be released.[4621]

The UK government is additionally attempting to engage members of its communities that have traditionally been excluded from participation in building artificial intelligence and playing a role in its governance through the Alan Turing Institute, created in 2015 as a "national institute for data science" and more recently adding "and artificial intelligence". In August, 2022, the Turing Institute announced funding for seven innovative projects to boost public engagement with data science and AI across the UK.[4622] The initiative aimed to attract members of underrepresented groups to"widen participation by inspiring members of the public who may not usually interact with science to take an interest and have a voice in AI and data science."[4623]

Data Protection

Data protection in the UK is governed by both the 2018 Data Protection Act (DPA),[4624] and the UK GDPR.[4625] The UK GDPR essentially mirrors the EU GDPR; the DPA updated this regulation with clarification regarding oversight and enforcement powers.[4626] The Information Commissioner's Office (ICO) was established as an "independent regulator for Data Protection and Freedom of Information" in accordance with the DPA, as it had previously been designated in accordance with the EU GDPR requirements.[4627]

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pro-innovation-approach-to-regulating-ai/establishing-a-pro-innovation-approach-to-regulating-ai-policy-statement.

[4621] UK Govt, *Department for Science, Innovation and Technology* (March 2023), https://www.gov.uk/government/organisations/department-for-science-innovation-and-technology.

[4622] The Alan Turing Institute, *Turing funds seven innovative projects to boost public engagement with data science and AI*, https://www.turing.ac.uk/news/turing-funds-seven-innovative-projects-boost-public-engagement-data-science-and-ai.

[4623] Ibid.

[4624] Gov.UK, *The Data Protection Act* (May, 2018), https://www.gov.uk/data-protection#:~:text=The%20Data%20Protection%20Act%202018%20is%20the%20UK's%20implementation%20of,used%20fairly%2C%20lawfully%20and%20transparently.

[4625] ICO, *Guide to data protection* (March, 2023) https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/.

[4626] UK ICO, *About the DPA 2018* (March, 2023), https://ico.org.uk/for-organisations/guide-to-data-protection/introduction-to-dpa-2018/about-the-dpa-2018/#1.

[4627] Gov.UK, *The Data Protection Act* (May, 2018), https://www.gov.uk/data-protection#:~:text=The%20Data%20Protection%20Act%202018%20is%20the%20UK's%20implementation%20of,used%20fairly%2C%20lawfully%20and%20transparently.

Despite Brexit, the UK remains an active member of the Council of Europe[4628], and a signatory to the Council of Europe Convention 108+, requiring the safeguarding of rights pertaining to the automated processing of personal data including: the right to be informed; the right to not be subject to automated decision-making, the right to object, the right to remedy following violation of rights, and the right to assistance from a supervisory authority in exercising these rights.[4629] In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to amplifying positive effects and preventing or minimising possible adverse effects."[4630]

In March 2023, the ICO published an update to its guidance on AI to clarify how to assess the risks to rights and freedoms that AI pose from a data protection perspective, and the appropriate measures that can be implemented to reduce these risks.[4631] With respect to data protection, the updated guidance advises organizations building or integrating AI systems on the conduct of data protection impact assessments (DPIAs).[4632] "You should not see DPIAs as simply a box ticking compliance exercise. They can effectively act as roadmaps for you to identify and control the risks to

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[4628] Council of Europe, *Our Member States* (March 2023), https://www.coe.int/en/web/about-us/our-member-states.
[4629] Council of Europe, *Convention 108 and Protocols* (March, 2023), https://www.coe.int/en/web/data-protection/convention108-and-protocol.
[4630] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154
[4631] UK ICO, *Guidance on AI and Data Protection* (March, 2023), https://ico.org.uk/for-organisations/guide-to-data-protection/key-dp-themes/guidance-on-ai-and-data-protection/.
[4632] UK ICO, *Guide to Data Protection: What are the accountability and governance implications of AI?* (March, 2023), https://ico.org.uk/for-organisations/guide-to-data-protection/key-dp-themes/guidance-on-ai-and-data-protection/what-are-the-accountability-and-governance-implications-of-ai/#DPIA.

rights and freedoms that using AI can pose. They are also an ideal opportunity for you to consider and demonstrate your accountability for the decisions you make in the design or procurement of AI systems."

The ICO has been a member of the Global Privacy Assembly (GPA) since 2002, and co-sponsored the 2018 GPA Declaration on Ethics and Data Protection in Artificial Intelligence.[4633] Additionally, the ICO was one of the authors of both the 2020 GPA Resolution on AI Accountability[4634] and the 2022 GPA Resolution on Facial Recognition Technology.[4635]

Algorithmic Transparency

The UK government lays claim to being a global leader in establishing algorithmic transparency standards, and there are substantive reasons for this assertion.[4636] Firstly, the UK remains a member of the Council of Europe and is a party to Convention 108+, which enshrines the right to algorithmic transparency.[4637] The 2020 Recommendation of the Council of Europe Committee of Ministers on human rights impacts of algorithmic systems[4638] addresses additional human rights impacts of AI technologies with guidance on obligations of states and responsibilities of companies. The Recommendation specifically emphasizes requirements on transparency, accountability and effective remedies.

With regard to transparency, the Recommendation provides that "States should establish appropriate levels of transparency with regard to the public procurement, use, design and basic processing criteria and

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[4633] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 23, 2018), https://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[4634] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/10/FINAL-GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN-1.pdf.

[4635] Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[4636] UK Cabinet Office CDDO, *UK government publishes pioneering standard for algorithmic transparency* (Nov., 2021), https://www.gov.uk/government/news/uk-government-publishes-pioneering-standard-for-algorithmic-transparency.

[4637] See Article 9 c) of the Modernized Convention 108 + https://www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/LIBE/DV/2018/09-10/Convention_108_EN.pdf.

[4638] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (Apr. 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

methods of algorithmic systems implemented by and for them, or by private sector actors. The legislative frameworks for intellectual property or trade secrets should not preclude such transparency, nor should States or private parties seek to exploit them for this purpose. Transparency levels should be as high as possible and proportionate to the severity of adverse human rights impacts, including ethics labels or seals for algorithmic systems to enable users to navigate between systems. The use of algorithmic systems in decision-making processes that carry high risks to human rights should be subject to particularly high standards as regards the explainability of processes and outputs."[4639]

The Recommendation also clarifies with regard to "contestability: Affected individuals and groups should be afforded effective means to contest relevant determinations and decisions. As a necessary precondition, the existence, process, rationale, reasoning and possible outcome of algorithmic systems at individual and collective levels should be explained and clarified in a timely, impartial, easily-readable and accessible manner to individuals whose rights or legitimate interests may be affected, as well as to relevant public authorities. Contestation should include an opportunity to be heard, a thorough review of the decision and the possibility to obtain a non-automated decision. This right may not be waived, and should be affordable and easily enforceable before, during and after deployment, including through the provision of easily accessible contact points and hotlines."[4640]

Algorithmic transparency is also provided for by the UK GDPR[4641] and DPA. "Articles 13 and 14 of the GDPR give individuals the right to be informed of the existence of solely automated decision-making, producing legal or similarly significant effects; meaningful information about the logic involved; and the significance and envisaged consequences for the individual. Article 15 of the GDPR gives individuals the right of access to information on the existence of solely automated decision-making producing legal or similarly significant effects; meaningful information about the logic involved; and the significance and envisaged consequences for the individual."[4642] The concept of algorithmic transparency derived

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[4639] Ibid.

[4640] Ibid.

[4641] UK ICO, *The basics of explaining AI: Legal Framework* (March, 2023), https://ico.org.uk/for-organisations/guide-to-data-protection/key-dp-themes/explaining-decisions-made-with-artificial-intelligence/part-1-the-basics-of-explaining-ai/legal-framework/.

[4642] UK ICO, *The basics of explaining AI: Legal Framework* (March, 2023), https://ico.org.uk/for-organisations/guide-to-data-protection/key-dp-themes/explaining-

from the UK's data protection framework is addressed in some detail in the ICO AI Guidance.[4643] In addition to requiring transparency regarding the use of personal data within algorithmic systems, the purposes of this personal data use, the retention periods for that personal data, and information about anyone with whom it might be shared, the guidance requires that organizations contributing to decisions made via algorithmic systems offer transparent "explanations" for these systems. More explicitly, organizations using algorithmic system must make available: a rational explanation, "reasons that led to a decision delivered in an accessible and non-technical way; a responsibility explanation, "who is involved in the development, management and implementation of an AI system, and who to contact for a human review of a decision; a data explanation, "what data has been used in a particular decision and how; a fairness explanation including, "steps taken across the design and implementation of an AI system to ensure that the decisions it supports are generally unbiased and fair; safety and performance explanation, "steps taken across design and implementation of an AI system to maximize the accuracy, reliability, security and robustness of its decisions and behaviors; and an impact explanation, "steps taken across the design and implementation of an AI system and its decisions to consider and monitor the impacts…[the] system and its decisions has or may have on an individual and on wider society.

In November 2020, the Centre for Data Ethics and Innovation (CDEI), formerly a government task force and now an arm of the Department for Science, Innovation and Technology,[4644] published its review into bias in algorithmic decision-making.[4645] The Center focused on the use of algorithms in significant decisions about individuals in four sectors (policing, local government, financial services and recruitment). Key recommendations include:
1) Government should place a mandatory transparency obligation on all public sector organizations using algorithms that have an impact on significant decisions affecting individuals;

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decisions-made-with-artificial-intelligence/part-1-the-basics-of-explaining-ai/legal-framework/.

[4643] UK ICO, *How do we ensure transparency in AI?* (March, 2023), https://ico.org.uk/for-organisations/guide-to-data-protection/key-dp-themes/guidance-on-ai-and-data-protection/how-do-we-ensure-transparency-in-ai/.

[4644] UK Centre for Data Ethics and Innovation, *About us* (March, 2023), https://www.gov.uk/government/organisations/centre-for-data-ethics-and-innovation/about.

[4645] Gov.UK, *CDEI publishes review into bias in algorithmic decision-making* (Nov. 27, 2020), https://www.gov.uk/government/publications/cdei-publishes-review-into-bias-in-algorithmic-decision-making

2) Organizations should be actively using data to identify and mitigate bias. They should make sure that they understand the capabilities and limitations of algorithmic tools, and carefully consider how they will ensure fair treatment of individuals, and

3) Government should issue guidance that clarifies the application of the Equality Act to algorithmic decision-making. This should include guidance on the collection of data to measure bias, as well as the lawfulness of bias mitigation techniques (some of which risk introducing positive discrimination, which is illegal under the Equality Act).

In May 2021, the Office for Artificial Intelligence published the Ethics, Transparency and Accountability Framework for Automated Decision-Making for public sector organizations on how to use automated or algorithmic decision-making systems in a safe, sustainable and ethical way.[4646] This guidance was built upon in November 2021, through the Cabinet Office's Central Digital and Data Office (CDDO), upon publication of a pioneering standard for algorithmic transparency and public sector bodies, following up on commitments made in the National AI and National Data Strategies.[4647] The Cabinet Office announced that this "made the UK one of the first countries to develop a national algorithmic transparency standard, strengthening the UK's position as a world leader in AI governance."[4648] CDDO developed the standard collaboratively through working with external experts and civil society groups. Also, it is informed by a public engagement study run by the Center for Data Ethics and Innovation and Britain Thinks.[4649]

On January 6, 2023, the CDEI announced that, along with the CDDO, it had updated the prior standard for public sector organizations, and released this refined Algorithmic Transparency Recording Standard following a pilot phase.[4650] The revised standard aims to help public sector

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[4646] Gov.UK, *Ethics, Transparency and Accountability Framework for Automated Decision-Making* (May, 2021) https://www.gov.uk/government/publications/ethics-transparency-and-accountability-framework-for-automated-decision-making/ethics-transparency-and-accountability-framework-for-automated-decision-making

[4647] UK Cabinet Office CDDO, *UK government publishes pioneering standard for algorithmic transparency* (Nov., 2021), https://www.gov.uk/government/news/uk-government-publishes-pioneering-standard-for-algorithmic-transparency.

[4648] UK Cabinet Office CDDO, UK government publishes pioneering standard for algorithmic transparency (Nov., 2021), https://www.gov.uk/government/news/uk-government-publishes-pioneering-standard-for-algorithmic-transparency.

[4649] UK Centre for Data Ethics and Innovation, *BritainThinks: complete transparency, complete simplicity* (June 2021), https://www.gov.uk/government/publications/cdei-publishes-commissioned-research-on-algorithmic-transparency-in-the-public-sector.

[4650] UK CDDO + CDEI, *Guidance: Algorithmic transparency recording standard for public sector bodies* (Jan. 2023), https://www.gov.uk/government/publications/guidance-

organizations provide clear information about the algorithmic tools they use, and why they are using them. The guidance specifies that algorithmic transparency requires openness on how algorithmic tools support decision-making, which includes providing information on algorithmic tools and algorithm-assisted decisions in a complete, open, understandable, easily-accessible, and free format. The standard is part of the Government's National Data Strategy, which includes a commitment to explore an appropriate and effective way to deliver greater transparency on algorithm-assisted decision making in the public sector.[4651]

AI Grading Controversy

A widely reported controversy over the use of AI in the UK public sector erupted in the Summer of 2020, during the COVID-19 global pandemic.[4652] With students having completed their studies remotely, the UK Office of Qualifications and Examinations (Ofqual)applied an algorithm to estimate the exam results these students might have received given in-person assessments. Nearly 40 percent of students saw their grades reduced after the government reevaluated exams, known as "A-levels."[4653] The software model incorporated the school's past results and students' earlier results on mock exams. The calculations favored elites.[4654] As the BBC explained, the algorithm "locks in all the advantages and disadvantages - and means that the talented outlier, such as the bright child

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for-organisations-using-the-algorithmic-transparency-recording-standard/algorithmic-transparency-recording-standard-guidance-for-public-sector-bodies.

[4651] Data Guidance. *UK: CDEI and CDDO update Algorithmic Transparency Recording Standard* (Jan. 9, 2023).
https://www.dataguidance.com/news/uk-cdei-and-cddo-update-algorithmic-transparency.

[4652] Karen Hao, *UK exam algorithm can't fix broken system* (Aug., 2020),
https://www.technologyreview.com/2020/08/20/1007502/uk-exam-algorithm-cant-fix-broken-system/.

[4653] Adam Satariano, *British Grading Debacle Shows Pitfalls of Automating Government,* New York Times (Aug. 20, 2020) ("The uproar over an algorithm that lowered the grades of 40 percent of students is a sign of battles to come regarding the use of technology in public services."), https://www.nytimes.com/2020/08/20/world/europe/uk-england-grading-algorithm.html.

[4654] Karla Adams, *The UK used an algorithm to estimate exam results. The calculations favored elites,* The Washington Post (Aug. 17, 2020),
https://www.washingtonpost.com/world/europe/the-uk-used-an-algorithm-to-estimate-exam-results-the-calculations-favored-elites/2020/08/17/2b116d48-e091-11ea-82d8-5e55d47e90ca_story.html.

in the low-achieving school, or the school that is rapidly improving, could be delivered an injustice."[4655]

As the Open Data Institute pointed out, a student would have received a high grade in math only because historically someone from her school had received a high grade, although the same student was predicted at B or C.[4656] The new evaluation method was triggered by the COVID-19 pandemic since in-person exams were canceled and the government sought to standardize college admissions. Wired UK reported that some researchers stated that "[rather than the algorithm getting it wrong, …it was simply the wrong algorithm."[4657] However, others thought that the application of Article 22 of the General Data Protection Regulation (prohibition of decisions solely made by automated decision making) was at stake, albeit disputed by the governmental agency that suggested the computer generated score. Ultimately, protests in front of the British Parliament and a pending lawsuit led the government to withdraw the system.[4658]

Karen Hao, a reporter with MIT Technology Review, wrote "The problem began when the exam regulator lost sight of the ultimate goal—and pushed for standardization above all else."[4659]

Facial Recognition

Human rights organizations have long criticized the UK government for the almost unparalleled deployment of CCTV.[4660] Early in 2020,

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[4655] Sean Coughlan, *Why did the A-level algorithm say no?,* BBC (Aug. 14, 2020), https://www.bbc.com/news/education-53787203.

[4656] Open Data Institute, *What can we learn from the qualifications fiasco? – The ODI* (Aug. 24, 2020), https://theodi.org/article/what-can-we-learn-from-the-qualifications-fiasco/.

[4657] Matt Burgess, *The lessons we all must learn from the A-levels algorithm debacle,* WiredUK (Aug. 20, 2020), ("Unless action is taken, similar systems will suffer from the same mistakes. And the consequences could be dire") https://www.wired.co.uk/article/gcse-results-alevels-algorithm-explained.

[4658] Daan Kolkman, *"F**k the algorithm"?: What the world can learn from the UK's A-level grading fiasco*, London School of Economic Blog (Aug. 26, 2020), https://blogs.lse.ac.uk/impactofsocialsciences/2020/08/26/fk-the-algorithm-what-the-world-can-learn-from-the-uks-a-level-grading-fiasco/.

[4659] Karen Hao, *The UK exam debacle reminds us that algorithms can't fix broken systems*, MIT Technology Review (Aug. 20, 2020), https://www.technologyreview.com/2020/08/20/1007502/uk-exam-algorithm-cant-fix-broken-system/.

[4660] Big Brother Watch, *Stop Facial Recognition*, https://bigbrotherwatch.org.uk/campaigns/stop-facial-recognition/. (Chongqing, China has now overtaken London as the most surveilled city in the world.) See Matthew Keegan, *Big Brother is watching: Chinese city with 2.6m cameras is world's most heavily surveilled*, The Guardian (Dec. 2, 2019),

London's Metropolitan Police began deploying live facial recognition, an automated process using an AI-driven system to match faces against a database.[4661] The Met reported its use of the controversial technology would be targeted to "specific locations where intelligence suggests we are most likely to locate serious offenders."[4662] Silkie Carlo, the director of Big Brother Watch, called the move "an enormous expansion of the surveillance state and a serious threat to civil liberties in the UK." There is currently no law in the UK governing facial recognition. More worrisome, between 2016-2019, Met Police use of facial recognition technology was 93% inaccurate, with 3,000+ people wrongly identified by police.[4663]

In August, 2020, the Court of Appeal ruled that the use of live facial recognition (LFR) by South Wales Police was unlawful as it violated privacy rates, data protection laws, and equality duties.[4664] The court found that there was no clear guidance or oversight on how LFR should be deployed, who should be included on watchlists, and how long the data should be retained. The court also noted that LFR had a disproportionate impact on ethnic minorities and women, who were more likely to be misidentified or discriminated against by the technology. Following this ruling, some police forces suspended their use of LFR until further legal clarity was provided. However many, including the London Metropolitan Police, continued to use LFR with only slightly revised policies and procedures.[4665]

In June, 2021, the ICO's Information Commissioner produced a formal opinion on the use of facial recognition technology in public

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https://www.theguardian.com/cities/2019/dec/02/big-brother-is-watching-chinese-city-with-26m-cameras-is-worlds-most-heavily-surveilled.

[4661] Reuters, *Police to roll out live facial recognition cameras in London* (Jan, 2020), https://www.reuters.com/article/us-britain-security-cameras/police-to-roll-out-live-facial-recognition-cameras-in-london-idUSKBN1ZN1H2.

[4662] Vikram Dodd, *Met police to begin using live facial recognition cameras in London,* The Guardian (Jan. 24, 2020), https://www.theguardian.com/technology/2020/jan/24/met-police-begin-using-live-facial-recognition-cameras.

[4663] Big Brother Watch, *Stop Facial Recognition*, https://bigbrotherwatch.org.uk/campaigns/stop-facial-recognition/.

[4664] Ada Lovelace Institute, *Facial recognition technology needs proper regulation - Court of Appeal* (Aug, 2020), https://www.adalovelaceinstitute.org/blog/facial-recognition-technology-needs-proper-regulation/.

[4665] Jane Croft and Siddharth Venkataramakrishnan, *Police use of facial recognition breaches human rights law*, London court rules (Aug, 2020), https://www.ft.com/content/b79e0bee-d32a-4d8e-b9b4-c8ffd3ac23f4.

places.[4666] The report specifies that any deployment of facial recognition technology "must comply with all relevant parts of the UK GDPR and DPA 2018. This includes the data protection principles…including lawfulness, fairness, transparency, purpose limitation, data minimization, storage limitation, security and accountability. Controllers must also enable individuals to exercise their rights. These requirements of UK law represent universal core principles of data protection common to many legal regimes worldwide… Together, these requirements mean that where LFR is used for the automatic, indiscriminate collection of biometric data in public places, there is a high bar for its use to be lawful." Despite this published opinion, live facial recognition technology continues to be used across police departments throughout the country with no opportunity for members of the public to opt out, nor any meaningful efforts towards data minimization.[4667]

Automated Visa Application

In 2020, migrants' rights campaigners successfully challenged the automated decision-making system used by the Home Office to process visa applications.[4668] The algorithmic "streaming tool" was eliminated by the Home Office ahead of a judicial review by the Joint Council for the Welfare of Immigrants, which found the tool to be opaque and discriminatory toward applicants from certain nationalities and race groups. The Home Office committed to a "redesign of the process and the way in which visa applications are allocated for decision-making."[4669]

Lethal Autonomous Weapons

In June 2022, the UK's Ministry of Defense published its position on the use of lethal autonomous weapons and issued the following statement in the Defense AI Strategy: "The UK does not rule out incorporating AI within weapon systems. In practice, however, some concepts and

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[4666] UK Information Commissioner's Office, *The use of live facial recognition in public places* (June, 2021), https://ico.org.uk/media/2619985/ico-opinion-the-use-of-lfr-in-public-places-20210618.pdf.

[4667] Metropolitan Police, *Facial recognition* (March, 2023) https://www.met.police.uk/advice/advice-and-information/fr/facial-recognition#:~:text=Live%20Facial%20Recognition&text=LFR%20is%20not%20a%20ubiquitous,order%20to%20keep%20London%20safe.

[4668] The Joint Council for the Welfare of Immigrants, *We won! Home office to stop using racist visa algorithm* (Aug., 2020), https://www.jcwi.org.uk/news/we-won-home-office-to-stop-using-racist-visa-algorithm.

[4669] Henry McDonald, *Home office to scrap racist algorithm for UK visa applicants* (Aug. 2020), https://www.theguardian.com/uk-news/2020/aug/04/home-office-to-scrap-racist-algorithm-for-uk-visa-applicants.

capabilities may prove impossible to deliver in a safe and responsible manner – and we are very clear that there must be context-appropriate human involvement in weapons which identify, select and attack targets. This could mean some form of real-time human supervision, or control exercised through the setting of a system's operational parameters. We believe that AI can substantially augment the performance of our people and significantly enhance our capabilities. However, given concerns about the ethics and risks of delegating certain decisions to AI, it is also important to state that we do not believe that "more autonomous" necessarily means "more capable." We believe that Human-Machine Teaming delivers the best outcomes, in terms of overall effectiveness, optimal use of resources, the practicalities of integration and the ease with which we can address issues arising; it is therefore our default approach to AI adoption. The appropriate degree of system "autonomy" and type of "human control" need to be considered carefully on a case-by-case basis."[4670]

In February 2023, the UK participated in the first global Summit on Responsible Artificial Intelligence in the Military Domain (REAIM 2023). Together with other government representatives, the United Kingdom agreed a joint call to action on the responsible development, deployment and use of artificial intelligence in the military domain.[4671] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil

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[4670] UK Ministry of Defense, *Our approach to the delivery of AI-enabled capability in Defense*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1082991/20220614-Ambitious_Safe_and_Responsible.pdf.
[4671] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb., 2023), https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

society and academia, to collaborate and exchange information on responsible AI in the military domain."[4672]

Human Rights

According to Freedom House, the UK is "free" and received 93/100 for political rights and civil liberties in 2022.[4673] The country "is a stable democracy that regularly holds free elections and is home to a vibrant media sector." The Freedom House also notes that: "While the government enforces robust protections for political rights and civil liberties, recent years have seen concerns about increased government surveillance of residents, as well as rising Islamophobia and anti-immigrant sentiment."[4674]

All UK AI initiatives must comply with the UK Human Rights Act of 1998. Post-Brexit, the UK remains a part of the European Convention on Human Rights and is subject to the jurisdiction of the European Court of Human Rights in Strasbourg. Therefore, even if the GDPR can no longer be enforced in the UK through judgments of the Court of Justice of the European Union in Luxembourg, the existence of structures like the UK's Information Commissioner's Office and generally, the remnants of EU's *Acquis Communautaire* make it clear that the UK has in place a relatively robust system of human rights protection.[4675]

In a 2020 Recommendation to member States on the human rights impacts of algorithmic systems, the Council of Europe Committee of Ministers recalled that "[c]onsidering that member States of the Council of Europe have committed themselves to ensuring the rights and freedoms enshrined in the Convention for the Protection of Human Rights and Fundamental Freedoms to everyone within their jurisdiction and that this commitment stands throughout the continuous processes of technological advancement and digital transformation that European societies are experiencing; Reaffirming that, as a result, member States must ensure that any design, development and ongoing deployment of algorithmic systems occur in compliance with human rights and fundamental freedoms, which are universal, indivisible, inter-dependent and interrelated, with a view to

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[4672] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

[4673] Freedom House, Fr*eedom in the World 2022 – United Kingdom*. https://freedomhouse.org/country/united-kingdom/freedom-world/2022

[4674] Freedom House, Fr*eedom in the World 2022 – United Kingdom*. https://freedomhouse.org/country/united-kingdom/freedom-world/2022

[4675] Information Commissioner's Office, *Overview – Data Protection and the EU*, (Accessed Feb.19, 2023), https://ico.org.uk/for-organisations/dp-at-the-end-of-the-transition-period/overview-data-protection-and-the-eu/.

amplifying positive effects and preventing or minimising possible adverse effects."[4676] Relatedly, also in 2020, the Alan Turing Institute issued guidelines on AI and non-discrimination/human rights.[4677]

OECD AI Principles

The UK is engaged internationally in the development of AI governance in line with the values of fairness, freedom and democracy. This engagement includes working with partners to shape AI governance under development including the EU AI Act and the potential Council of Europe legal framework.[4678] The UK is a founding member of the GPAI [4679] and announced a £1m investment in GPAI's data trust research in 2021.[4680] Additionally, UK defense has a strong record of collaborating with international partners and allies, including. This includes engagement with NATO supporting the AI Partnership for Defense. On the bi-lateral front, in September 2020 the UK and the U.S. signed to establish dialogue on their shared vision for driving technological breakthroughs in AI and to explore an AI R&D ecosystem that "promotes the mutual wellbeing, prosperity, and security of present and future generations." The Declaration mentions, as one objective, to protect "against efforts to adopt and apply these technologies in the service of authoritarianism and repression."[4681]

The UK is a member of the OECD and the G20 and therefore should adhere to the OECD/G20 AI Principles. However, the OECD/G20 AI

[4676] *Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems* (April 8, 2020), https://search.coe.int/cm/pages/result_details.aspx?objectid=09000016809e1154

[4677] The Alan Turing Institute, *AI for Human Rights*, https://www.turing.ac.uk/ai-human-rights

[4678] Gov.UK, *Establishing a pro-innovation approach to regulating AI* (July.20, 2022), https://www.gov.uk/government/publications/establishing-a-pro-innovation-approach-to-regulating-ai/establishing-a-pro-innovation-approach-to-regulating-ai-policy-statement.

[4679] Gov.UK, *Joint statement from founding members of the Global Partnership on Artificial Intelligence* (June 15, 2020), https://www.gov.uk/government/publications/joint-statement-from-founding-members-of-the-global-partnership-on-artificial-intelligence.

[4680] Gov.UK, *National AI Strategy* (Sept. 2021), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1020402/National_AI_Strategy_-_PDF_version.pdf.

[4681] Gov.UK, OAI, *Declaration of the United States of America and the United Kingdom of Great Britain and Northern Ireland on Cooperation in AI Research and Development* (Sept. 25, 2020), https://www.gov.uk/government/publications/declaration-of-the-united-states-of-america-and-the-united-kingdom-of-great-britain-and-northern-ireland-on-cooperation-in-ai-research-and-development/declaration.

Principles are not referred to in the National AI Strategy detailed above and there was no evidence of implementation in 2022.

UNESCO Recommendation on the Ethics of Artificial Intelligence

The UK has endorsed the 2021 UNESCO Recommendation on the Ethics of AI,[4682] the first ever global agreement on the ethics of AI. It remains to be seen which steps the government will take to implement the Recommendation.

Evaluation

Post-Brexit, the UK has shifted from a legislative approach based on rights and obligations, such as that applied in the data protection field, for a regulatory approach to AI, itself regulated by ethical standards and cross-ministerial coordination. From this perspective, the UK's development of a strong algorithmic transparency framework appears to be a corrective tool but not a safeguard against AI-based harm. Equally, the widespread use of live facial recognition across multiple UK law enforcement agencies in contradiction with the ICO's own guidance begs questions regarding the merits of a purely regulatory approach. In these circumstances, the resilience of the UK AI policy framework will be as good as the virtues and merits of its oversight mechanisms.

[4682] UNESCO, *Recommendation on the Ethics of Artificial Intelligence* (Nov. 23, 2021), https://unesdoc.unesco.org/ark:/48223/pf0000381137

United States

National AI Strategy

The United States promotes AI policies that seek to maintain American leadership and competitiveness for the protection of civil and human rights, to ensure technology is working for the American people, and to foster global alliances prioritizing democratic values and a collective defense. Speaking to the United Nations General Assembly in September 2021, President Biden reaffirmed the U.S.'s commitment to "work together with our democratic partners to ensure that new advances in areas from biotechnology, to quantum computing, 5G, artificial intelligence, and more are used to lift people up, to solve problems, and advance human freedom — not to suppress dissent or target minority communities."[4683] President Biden's UN statement echoed similar comments to the G7 leaders at the Munich Security Conference earlier in the year. At that meeting, President Biden called for "rules that will govern the advance of technology and the norms of behavior in cyberspace, artificial intelligence, and biotechnology," that will "lift people up" and not pin them down. Biden also urged the G7 nations to stand up for "democratic values."[4684]

The current U.S. position on AI is comprised of a 2020 Presidential Executive Order (13960),[4685] a 2019 Executive Order (13859),[4686] the Office of Management and Budget (OMB) Guidance for Regulation of AI

[4683] The White House, *Remarks by President Biden Before the 76th Session of the United Nations General Assembly* (Sept. 21, 2021), https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/09/21/remarks-by-president-biden-before-the-76th-session-of-the-united-nations-general-assembly/.

[4684] The White House*, Remarks by President Biden at the 2021 Virtual Munich Security Conference* (Feb. 19, 2021), https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/02/19/remarks-by-president-biden-at-the-2021-virtual-munich-security-conference/.

[4685] U.S. National Archives and Records Administration, Federal Register, *Executive Order 13960: Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government* (Dec. 3, 2020), 85 FR 78939 (pp. 78939-78943), https://www.federalregister.gov/documents/2020/12/08/2020-27065/promoting-the-use-of-trustworthy-artificial-intelligence-in-the-federal-government.

[4686] U.S. National Archives and Records Administration, Federal Register, *Executive Order 13859: Maintaining American Leadership in Artificial Intelligence* (Feb.11, 2019), 84 FR 3967 (pp. 3967-3972), https://www.federalregister.gov/documents/2019/02/14/2019-02544/maintaining-american-leadership-in-artificial-intelligence.

Applications,[4687] the recommendations of a National Security Commission on Artificial Intelligence (NSCAI),[4688] and various initiatives and programs established by the National Artificial Intelligence Initiative Act (NAIIA).[4689]

The 2019 Executive Order emphasized the need to maintain American leadership in Artificial Intelligence, and sets out a range of policies and practices, including funding, research, training, and collaboration.[4690] It also describes the need protect "civil liberties, privacy, and American values."[4691]

The OMB guidance also underscores the desire to maintain American leadership, and endorses such values as privacy, civil liberties, human rights, the rule of law, and respect for intellectual property.[4692] The OMB guidance outlines 10 principles, including Fairness and Non-Discrimination, Disclosure and Transparency, to promote innovation and growth for AI.[4693]

The 2020 Executive Order on Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government reflects earlier goals set in the 2019 Executive Order and established common guidance to encourage federal agencies to use AI, consistent with nine principles. [4694] The 2020 Executive Order states that "[t]he ongoing adoption and acceptance of AI will depend significantly on public trust."[4695] It also

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[4687] The White House, Office of Management and Budget (OMB), *Guidance for Regulation of Artificial Intelligence Applications M-21-06* (Nov. 17, 2020), https://www.whitehouse.gov/wp-content/uploads/2020/11/M-21-06.pdf.

[4688] National Security Commission on Artificial Intelligence (NSCAI), *The Final Report* (March 1, 2021), https://reports.nscai.gov/final-report/table-of-contents/. Previous recommendations by the NSCAI, including the Initial Report*,* quarterly reports, and interim reports, can be found on the NSCAI website at https://www.nscai.gov/previous-reports/

[4689] William M. (Mac) Thornberry, *National Defense Authorization Act for Fiscal Year 2021, Division E* ("National Artificial Intelligence Initiative Act"), https://www.congress.gov/116/plaws/publ283/PLAW-116publ283.pdf.

[4690] National Archives, *Executive Order 13859*, (Feb.11, 2019), https://www.federalregister.gov/documents/2019/02/14/2019-02544/maintaining-american-leadership-in-artificial-intelligence.

[4691] Ibid., p. 3967.

[4692] OMB, *Guidance for Regulation of AI Applications* (Nov.17, 2020), https://www.whitehouse.gov/wp-content/uploads/2020/11/M-21-06.pdf.

[4693] Ibid., pp. 3-7.

[4694] National Archives, *Executive Order 13960* (Dec.8, 20200), p. 78939, https://www.federalregister.gov/documents/2020/12/08/2020-27065/promoting-the-use-of-trustworthy-artificial-intelligence-in-the-federal-government.

[4695] Ibid.

emphasizes the need to ensure that "the use of AI remains consistent with all applicable laws, including those related to privacy, civil rights, and civil liberties."[4696] Furthermore, it directs the OMB to "post a roadmap for the policy guidance that OMB intends to create or revise to better support the use of AI, consistent with this order. This roadmap shall include, where appropriate, a schedule for engaging with the public and timelines for finalizing relevant policy guidance."[4697]

Section 3 of the 2020 Executive Order describes Principles for Use of AI in government. "When designing, developing, acquiring, and using AI in the Federal Government, agencies shall adhere to the following Principles:"

a) Lawful and respectful of our nation's values
b) Purposeful and performance-driven
c) Accurate, reliable and effective
d) Safe, secure, and resilient
e) Understandable
f) Responsible and traceable
g) Regularly monitored
h) Transparent
i) Accountable[4698]

Members of the United States Congress have also proposed legislation for a U.S. national AI strategy. Representatives Robin Kelly (R-Illinois) and Will Hurd (R-Texas) introduced a Congressional Resolution calling for the creation of a US National AI Strategy (H.Res.1250).[4699] The resolution, which was passed in the House of Representatives in December 2020, emphasizes global leadership, a prepared workforce, national security, research and development, and ethics, reduced bias, fairness, and privacy.[4700] It does not establish any new agency to regulate AI nor does it make clear which new obligations would exist for those who deploy AI systems. But the resolution does provide a detailed outline of a US national AI strategy. Among other points, the resolution states "Developing and using artificial intelligence in ways that

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[4696] Ibid, p. 78940.

[4697] Ibid, p. 78941.

[4698] Ibid, pp. 8940-78941.

[4699] Congresswoman Robin Kelly, *ICYMI: Kelly, Hurd Call for Creation of National AI Strategy* (Sept. 16, 2020), https://robinkelly.house.gov/media-center/press-releases/kelly-hurd-introduce-bipartisan-resolution-create-national-artificial

[4700] H.Res.1250, 116th Congress (2019-2020), *Guiding Principles of the National Artificial Intelligence Strategy of the United States* (Dec. 8, 2020), https://www.congress.gov/bill/116th-congress/house-resolution/1250/text

are ethical, reduce bias, promote fairness, and protect privacy is essential for fostering a positive effect on society consistent with core United States values."[4701] The resolution also acknowledges the OECD Principles on Artificial Intelligence. The Bipartisan Policy Center has endorsed the resolution, declaring "we must embrace AI while protecting our civil liberties, modernizing our workforce and education programs, and investing more in R&D."[4702] Following the passage of the resolution, committees in both chambers of Congress (the House and Senate) have introduced legislation and held committee meetings that build on the strategy outlined in H.Res.1250.[4703]

The National Artificial Intelligence Initiative Act (NAIIA) marks one of the most significant developments in U.S. AI policy. It directed the President to establish the National Artificial Intelligence Initiative (NAII), with the aim to "lead the world in the development and use of trustworthy artificial intelligence systems in the public and private sectors."[4704] The NAIIA also created the National Artificial Intelligence Initiative Office (NAIIO) within the Office of Science and Technology Policy (OSTP) to coordinate and support the federal government's activities through the NAII.[4705] The Act includes provisions for funding interdisciplinary AI education and workforce training, establishing AI research institutes, and cooperating with allies on trustworthy AI development.[4706]

The AI in Government Act of 2020 establishes an AI Center of Excellence (AI CoE) to facilitate cohesive and competent adoption of AI by

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[4701] Ibid.

[4702] Bipartisan Policy Center, *BPC: National AI Strategy Resolution A Critical Step* (Sept. 16, 2020), https://bipartisanpolicy.org/press-release/bpc-national-ai-strategy-resolution-a-critical-step/.

[4703] For example U.S. House of Representatives Committee on Science, Space, and Technology, House Event 115165, *Trustworthy AI: Managing the Risks of Artificial Intelligence* (Sept. 29, 2022), https://www.congress.gov/event/117th-congress/house-event/115165?q=%7B%22search%22%3A%5B%22%5C%22Artificial+Intelligence%5C%22%22%2C%22%5C%22Artificial%22%2C%22Intelligence%5C%22%22%5D%7D&s=10&r=6; H.R.847, 117th Congress (2021-2022), *Promoting Digital Privacy Technologies Act* (May 11, 2022); and Public Law 117-167 (136 STAT. 1366), *CHIPS and Science Act* (Aug. 9, 2022), https://www.congress.gov/117/plaws/publ167/PLAW-117publ167.pdf; see also Congress.gov, https://www.congress.gov/search?q=%7B%22search%22%3A%22%5C%22Artificial+Intelligence%5C%22%22%2C%22source%22%3A%5B%22committee-meetings%22%2C%22legislation%22%5D%2C%22congress%22%3A%5B%22118%22%2C117%5D%7D.

[4704] *NDAA FY 2021*, Division E, Title LI, Sec. 5101

[4705] National Artificial Intelligence Office, *About the NAIIO*, https://www.ai.gov/naiio/.

[4706] Ibid.

the government "for the purposes of benefiting the public and enhancing the productivity and efficiency of Federal Government operations."[4707] Similar to the 2020 Executive Order, the AI in Government Act requires the OMB to "issue a memorandum" to federal agencies regarding the government use of AI in ways that protect "civil liberties, civil rights, and economic and national security," along with "best practices" for identifying and mitigating bias and discriminatory impact in the use of AI.[4708] As of late 2022, the OMB has not fully complied with either the 2020 Executive Order or the AI in Government Act.[4709]

Finally, the White House and Congress have also paid close attention to the draft AI Act in the European Union as a model for future U.S. AI regulation. Jake Sullivan, the White House National Security Advisor, has stated that "United States welcomes the EU's new initiatives on artificial intelligence" and that the U.S. will "work with our friends and allies to foster trustworthy AI."[4710] Lynne Parker, Founding Director of the NAIIO and the OSTP's Assistant Director of AI, has described the EU AI Act as a "very good comprehensive approach that the U.S. should consider."[4711] However, there are some indications that the U.S. intends to propose significant changes to the current version of the AI Act at the next meeting of the U.S.-EU Trade and Technology Council on December 5, 2022.[4712]

OMB Guidance for AI Regulation

In November 2020, the US Office of Management and Budget (OMB) issued the Guidance for Regulation of Artificial Intelligence

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[4707] Public Law 116-260, *AI in Government Act*, Sec. 103(a) (Dec. 27, 2020), https://www.congress.gov/bill/116th-congress/house-bill/133/text.

[4708] Ibid., Sec. 104(a)

[4709] See *CAIDP Statement to OMB* (Oct. 10. 2021), https://www.caidp.org/app/download/8350420263/CAIDP-OMB-Statement-19102021.pdf.

[4710] Jake Sullivan [@JakeSullivan46], "The United States welcomes the EU's new initiatives on artificial intelligence. We will work with our friends and allies to foster trustworthy AI that reflects our shared values and commitment to protecting the rights and dignity of all our citizens." Twitter (Apr. 21, 2021), https://twitter.com/jakesullivan46/status/1384970668341669891

[4711] Dan Reilly, *White House A.I. director says U.S. should model Europe's approach to regulation,* Fortune (Nov. 10, 2021), https://fortune.com/2021/11/10/white-house-a-i-director-regulation/

[4712] Luca Bertuzzi, *The US unofficial position on upcoming EU Artificial Intelligence rules*, Euractiv, (Oct. 24, 2022), https://www.euractiv.com/section/digital/news/the-us-unofficial-position-on-upcoming-eu-artificial-intelligence-rules/

Applications.[4713] The Guidance follows from the Executive on American Leadership in AI and states that "when considering regulations or policies related to AI applications, agencies should continue to promote advancements in technology and innovation, while protecting American technology, economic and national security, privacy, civil liberties and other American values, including the principles of freedom, human rights, the rule of law, and respect for intellectual property." It is explicitly addressed to AI applications "developed and deployed outside of the federal government."[4714]

The Guidance restates key goals for the "stewardship" of AI applications:

- Public Trust in AI
- Public Participation
- Scientific Integrity and Information Quality
- Risk Assessment and Management
- Benefits and Costs
- Flexibility
- Fairness and Non-discrimination
- Disclosure and Transparency
- Safety and Security
- Interagency Cooperation[4715]

The Guidance encourages communications to the public, describing both the benefits and risks "in a manner that promotes public trust and understanding of AI." The Guidance recommends that "agencies should communicate this information transparently by describing the underlying assumptions and uncertainties regarding expected outcomes, both positive and negative."

There are provisions in the Guidance that are controversial. The OMB recommends that agencies "increase public access to government data and models where appropriate" but fails to note whether such government data is personal data or may be subject to protections under federal law.[4716]

EU-U.S. Trade and Technology Council (TTC)

In June 2021, the U.S. and the European Union established the EU-U.S. Trade and Technology Council (TTC) to "strengthen global

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[4713] OMB, *Guidance for Regulation of AI Applications, https://www.whitehouse.gov/wp-content/uploads/2020/11/M-21-06.pdf*
[4714] Ibid.
[4715] Ibid.
[4716] Ibid, p. 8.

cooperation on technology, digital issues, and supply chains" and "with the aim of promoting a democratic model of digital governance."[4717] At the TTC's inaugural meeting in September 2021, the U.S. and EU published a joint statement (the Pittsburgh Statement) in which they acknowledged that "AI technologies yield powerful advances but can also threaten our shared values and fundamental freedoms" and committed to "develop and implement AI systems that are innovative and trustworthy and that respect universal human rights and shared democratic values."[4718]

The U.S. and EU also expressed "significant concerns" with the use of "social scoring systems with an aim to implement social control at scale." Noting that such uses of AI "pose threats to fundamental freedoms and the rule of law*,"* the TTC stated its opposition to the use of AI for social scoring or other "rights-violating systems*.*" Finally, the TTC outlined areas of U.S.-EU cooperation, including "responsible stewardship of trustworthy AI" through the OECD AI Recommendations, "measurement and evaluation tools" to assess accuracy and bias, and the development of "AI technologies designed to enhance privacy protections."

The U.S. has made progress in support of the TTC's goals. In December 2021, the Biden administration announced an initiative to encourage development of "Democracy-Affirming Technologies" that support democratic values and governance.[4719] Relatedly, the U.S. and UK announced plans to promote Privacy Enhancing Technologies (PETs), including low-data AI, the deletion of unnecessary data, and techniques for robust anonymity.[4720]

Also in December 2021, the EU-U.S. Joint Technology Competition Policy Dialogue was launched by the Federal Trade Commission, the Department of Justice's Antitrust Division, and the European Commission. The Joint Dialogue is intended to align with the TTC's goals through

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[4717] The White House, *U.S.-EU Trade and Technology Council Inaugural Joint Statement* (Sept. 29, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/15/u-s-eu-summit-statement/

[4718] U.S.-EU Trade and Technology Council, *Joint Statement* (Sept. 29, 2021), https://ustr.gov/about-us/policy-offices/press-office/press-releases/2021/september/us-eu-trade-and-technology-council-inaugural-joint-statement.

[4719] The White House, *Fact Sheet: Announcing the Presidential Initiative for Democratic Renewal* (Dec. 9, 2021) https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/09/fact-sheet-announcing-the-presidential-initiative-for-democratic-renewal/.

[4720] The White House, *US and UK to Partner on Prize Challenges to Advance Privacy-Enhancing Technologies* (Dec. 8, 2021) https://www.whitehouse.gov/ostp/news-updates/2021/12/08/us-and-uk-to-partner-on-a-prize-challenges-to-advance-privacy-enhancing-technologies/

coordination "as much as possible on policy and enforcement," "especially in technology sectors," and by promoting "greater alignment" between the U.S. and EU.[4721]

The TTC held its second meeting in May 2022.[4722] At the meeting, the co-chairs announced the development of a joint roadmap on "evaluation and measurement tools for trustworthy Artificial Intelligence." This work will be performed by the AI sub-group, which was created to realize a shared commitment to responsible AI stewardship and joint support of the OECD Recommendation on AI.[4723]

In its December 2022 meeting, the TTC issued the Joint Roadmap on Evaluation and Measurement Tools for Trustworthy AI and Risk Management (AI Roadmap).[4724] The AI Roadmap's intent is to develop international standards and provide guidance on the development of "tools, methodologies, and approaches to AI risk management."[4725] The TTC also launched a joint report on the economic impact of AI-driven technology on the workforce. The goal of the report is to "strengthen collaboration on analysis and policy to ensure that the benefits are broadly shared."[4726]

[4721] The United States Department of Justice Antitrust Division and the United States Federal Trade Commission, *EU-U.S. Joint Technology Competition Policy Dialogue Inaugural Joint Statement between the European Commission* (Dec. 7, 2021), https://www.ftc.gov/system/files/documents/public_statements/1598739/eu-us_joint_dialogue_statement_12721.pdf.

[4722] White House, *Fact Sheet: U.S.-EU Trade and Technology Council Establishes Economic and Technology Policies & Initiatives* (May 16, 2022), https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/16/fact-sheet-u-s-eu-trade-and-technology-council-establishes-economic-and-technology-policies-initiatives/.

[4723] The White House, *U.S.-EU Joint Statement of the Trade and Technology Council* (May 16, 2022), https://www.whitehouse.gov/wp-content/uploads/2022/05/TTC-US-text-Final-May-14.pdf.

[4724] White House, U.S.-EU TTC, *Joint Statement* (Dec. 5, 2022), https://www.whitehouse.gov/briefing-room/statements-releases/2022/12/05/u-s-eu-joint-statement-of-the-trade-and-technology-council/.

[4725] U.S.-EU TTC, *TTC Joint Roadmap on Evaluation and Measurement Tools for Trustworthy AI and Risk Management* (Dec. 1, 2022), https://www.nist.gov/system/files/documents/2022/12/04/Joint_TTC_Roadmap_Dec2022_Final.pdf

[4726] White House, *The Impact of Artificial Intelligence on the Future of Workforces in the European Union and the United States of America* (Dec. 5, 2022), https://www.whitehouse.gov/wp-content/uploads/2022/12/TTC-EC-CEA-AI-Report-12052022-1.pdf.

NIST Risk Management Framework

The National Institute of Standards and Technology (NIST) within the Department of Commerce announced the development of a voluntary AI risk management framework (RMF) in July 2021. The framework aims to "address risks in the design, development, use, and evaluation of AI products, services, and systems."[4727] As a part of the broader National AI Initiative, NIST hopes to produce a framework that can "develop along with the technology," "help[ing to] create and safeguard trust" in AI while "permit[ting] the flexibility for innovation."[4728]

Throughout 2021, NIST worked with and solicited input from the public to develop the framework, identifying "characteristics of trustworthiness" for AI systems: "accuracy, explainability and interpretability, reliability, privacy, robustness, safety, security (resilience), and mitigation of unintended and/or harmful bias, as well as of harmful uses."[4729]

On January 27, 2023, the NIST released Version One of its Artificial Intelligence Risk Management Framework (RMF).[4730] Following an initial mandate[4731] by Congress in 2020 for NIST to lead the charge, which subsequently led to a request for information, a concept paper, two drafts, and three public workshops.[4732] As an integral part of the framework, NIST highlights core functions such as governance, risk assessments and management and documentation, ranging from organizational roles and responsibilities to the AI system's knowledge limits.[4733]

[4727] NIST, *AI Risk Management Framework*, https://www.nist.gov/system/files/documents/2021/12/14/AI%20RMF%20Concept%20Paper_13Dec2021_posted.pdf

[4728] Ibid.

[4729] National Institute of Standards and Technology, *AI Risk Management Framework: Initial Draft* (March 17, 2022), https://www.nist.gov/system/files/documents/2022/03/17/AI-RMF-1stdraft.pdf

[4730] National Institute of Standards and Technology, *Artificial Intelligence Risk Management Framework (AI RMF 1.0)* (Jan. 2023), https://nvlpubs.nist.gov/nistpubs/ai/NIST.AI.100-1.pdf

[4731] *National Defense Authorization Act for Fiscal Year 2022*, Public Law, pp. 116-283 (Jan. 1, 2022), https://www.congress.gov/116/plaws/publ283/PLAW-116publ283.pdf

[4732] National Institute of Standards and Technology, *AI RMF Timeline and Engagements*, https://www.nist.gov/itl/ai-risk-management-framework

[4733] Tech Policy Press, *Five Takeaways from the NIST AI Risk Management Framework* (Jan. 26, 2023), *https://techpolicy.press/five-takeaways-from-the-nist-ai-risk-management-framework/*

The Joint Artificial Intelligence Center

The Joint Artificial Intelligence Center (JAIC) is a research center and "focal point" of AI strategy within the Department of Defense (DoD).[4734] The mission of the JAIC is to "transform the DoD by accelerating the delivery and adoption of AI to achieve mission impact at scale.[4735] The JAIC has recently undertaken an ambitious agenda to "accelerate the adoption of AI across every aspect of the military's warfighting and business operations."[4736] The new mission set is in contrast to the JAIC's introductory goal, which was to jumpstart AI in DoD through pathfinder projects. In June 2022, the JAIC and the Defense Digital Services (among other organizations) were merged into a unified organization, the Chief Digital and Artificial Intelligence Office (CDAO).[4737]

National Security Commission on AI

The U.S. Congress established the National Security Commission on AI (NSCAI) in 2018.[4738] The NSCAI has issued several reports and made recommendations to Congress. It also issued an interim report in November 2019, which was criticized for its lack of attention to democratic values.[4739] In a more recent report titled Key Considerations for Responsible Development and Fielding of Artificial Intelligence, the NSCAI recommends "[e]mploy[ing] technologies and operational policies that align with privacy preservation, fairness, inclusion, human rights, and [the] law of armed conflict."[4740]

In March 2021, the NSCAI released its Final Report for an integrated U.S. strategy for "the coming era of AI-accelerated competition and conflict."[4741] The Final Report included numerous recommendations for the U.S. government to use AI to protect U.S. interests and to support

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[4734] U.S. Department of Defense, *About the JAIC*, https://www.ai.mil/about.html

[4735] U.S. Department of Defense, Chief Information Officer, *Vision: Transform the DoD Through Artificial Intelligence,* https://dodcio.defense.gov/About-DoD-CIO/Organization/JAIC/

[4736] Scott Maucine, *JAIC entering new phase of life, will create teams to help DoD adopt AI* (Nov. 26, 2020), https://federalnewsnetwork.com/defense-main/2020/11/jaic-entering-new-phase-of-life-will-create-teams-to-help-dod-adopt-ai/

[4737] Chief Digital and Artificial Intelligence Office homepage, https://www.ai.mil/

[4738] National Security Commission on AI, *Home*, https://www.nscai.gov/home

[4739] National Security Commission on AI, *Interim Report* (Nov. 2019), https://www.epic.org/foia/epic-v-ai-commission/AI-Commission-Interim-Report-Nov-2019.pdf

[4740] National Security Commission on AI, *Key Considerations and Responsible Development and Fielding of Artificial Intelligence* (July 22, 2020), https://drive.google.com/file/d/1_zkNkT3Trz3rtFc8KVrEBNlg2R9MaUpi/view

[4741] NSCAI, *Final Report*, p. 8, https://www.nscai.gov/2021-final-report/

AI innovation, as well as recommendations to improve public transparency in its use of AI (including through AI risk and impact assessments), develop and test "technical approaches to preserving privacy, civil liberties, and civil rights," and strengthen redress and due process mechanisms for victims of AI-related harms. The report also called on the White House and State Department to establish an "Emerging Technology Coalition (ETC) of countries respectful of democratic values" to promote emerging technologies "according to democratic norms and values," including by "building on" the OECD AI Principles and the work of the Global Partnership on AI (GPAI).[4742] Finally, the Final Report called on the U.S. and ETC partners to create an "International Digital Democracy Initiative" that would rely, in part, on the OECD AI Principles to develop AI guidelines.[4743]

While the Final Report called for "baseline standards and safeguards regarding facial recognition," the Commission failed to address several problems previously identified by CAIDP.[4744] Beyond the lack of opportunities for formal comment or input from the general public during its drafting, the report failed to assess U.S. compliance with the OECD AI Principles or G20 guidelines, or to support prohibitions on lethal autonomous weapons or facial recognition technology, despite growing public concern and widespread support in Congress.

Public Participation

In 2021, the United States began several new initiatives to promote public participation in AI policy. In June, the White House launched the National Artificial Intelligence Research Resource Task Force to "develop a roadmap to democratize access to research tools that will promote AI innovation and fuel economic prosperity."[4745] In July, the White House Office of Science and Technology Policy (OSTP) and the National Science Foundation (NSF) sought input on the implementation plan for a National Artificial Intelligence Research Resource (NAIRR).[4746] The OSTP also

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[4742] Ibid, pp. 519-20.

[4743] Ibid, p. 524.

[4744] *CAIDP Statement on draft final report of US National Security Commission on AI* (Feb. 26, 2021), https://www.caidp.org/app/download/8297285563/CAIDP-NSCAI-02262021.pdf?t=1614291373

[4745] The White House, *The Biden Administration Launches the National Artificial Intelligence Research Resource Task Force* (June 10, 2021), https://www.whitehouse.gov/ostp/news-updates/2021/06/10/the-biden-administration-launches-the-national-artificial-intelligence-research-resource-task-force/

[4746] National Archives, Federal Register, *Request for Information (RFI) on an Implementation Plan for a National Artificial Intelligence Research Resource* (July 23,

began a series of public meetings and requests for information regarding AI policy. The AI Initiative Office continues to regularly post and update AI policy publications, including requests for information, concept papers and reports, ethical principles, and agency budgets, in its Publications Library on ai.gov.[4747] Finally, NIST has sought public input throughout its process of developing the AI RMF.[4748]

The United States government provides access to all final policy proposals concerning AI. Federal agencies have undertaken public rulemaking and requested public comment. However, the National Security Commission NSCAI attempted to keep its deliberations secret. A federal court later determined that the AI Commission had violated U.S. open government laws and was required to make both its records and its meetings open to the public.[4749] Oddly, the AI Commission initially made agency documents available on a proprietary platform rather than an agency website.[4750]

Data Protection and Algorithmic Transparency

The United States does not have an overarching privacy law, such as the GDPR, nor is there a privacy agency. However, the United States has two members in the Global Privacy Assembly (GPA), the FTC (since 2010) and the recently accredited California Privacy Protection Agency (2022).[4751] Neither voting U.S. member has endorsed the GPA's three key resolutions: the Declaration on Ethics and Data Protection in Artificial Intelligence,[4752] the Resolution on Accountability in the Development and

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2021), https://www.federalregister.gov/documents/2021/07/23/2021-15660/request-for-information-rfi-on-an-implementation-plan-for-a-national-artificial-intelligence

[4747] National Artificial Intelligence Initiative Office, Publications Library, https://www.ai.gov/publications/

[4748] NIST, *AI RMF Development*, https://www.nist.gov/itl/ai-risk-management-framework/ai-rmf-development

[4749] *EPIC v. AI Commission, Seeking Public Access to the records and meetings of the NSCAI*, https://www.epic.org/foia/epic-v-ai-commission/

[4750] National Security Commission on AI, *Interim Report and Third Quarter Recommendation* (Oct. 2020) (federal agency report stored on a Google drive server), https://drive.google.com/file/d/1jg9YlNagGI_0rid-HXY-fvJOAejlFIiy/view

[4751] Global Privacy Assembly, *List of Accredited Members*, https://globalprivacyassembly.org/participation-in-the-assembly/list-of-accredited-members/

[4752] Global Privacy Assembly, *Declaration on Ethics and Data Protection in Artificial Intelligence* (Oct. 2018), http://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

Use of Artificial Intelligence[4753] and the Resolution and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology.[4754] However, as discussed above, the FTC recently released a best practice guide for facial recognition.[4755]

There is no general law that establishes a right to algorithmic transparency. The draft American Data Privacy and Protection Act, which was recently introduced in the House of Representatives, provides for greater data privacy rights, as well as oversight and enforcement mechanisms, including protections against algorithms that are deemed to discriminate on the basis of race, color, religion, national origin, sex, or disability.[4756] If passed as drafted, the Act would give the FTC oversight authority over data holders and the ability to share information with enforcement agencies.[4757] However, the Act only covers "large data holders," which is defined as an entity with annual gross revenues of $250,000,000 or more, and that "collected, processed, or transferred" data of more than 5,000,000 individuals or devices and sensitive data of more than 200,000 individuals or devices.[4758] U.S. federal, state, or local governments, and entities collecting information on their behalf, are excluded from the Act.[4759]

In April 2021, the FTC outlined a series of recommendations to encourage transparency in the development and use of AI.[4760] Pointing to the agency's authority under the FTC Act, the Fair Credit Reporting Act,

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[4753] Global Privacy Assembly, *Resolution on Accountability in the Development and Use of Artificial Intelligence* (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

[4754] GPA, *Resolution and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology* (Oct. 2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf

[4755] Federal Trade Commission, *FTC Recommends Best Practices for Companies That Use Facial Recognition Technologies* (Oct. 12, 2012), https://www.ftc.gov/news-events/news/press-releases/2012/10/ftc-recommends-best-practices-companies-use-facial-recognition-technologies

[4756] H.R.8152, 117th Congress Second Session (June 21, 2022), *American Data Privacy and Protection Act*, https://www.congress.gov/bill/117th-congress/house-bill/8152/text/ih

[4757] Ibid. at Sec. 207(b)

[4758] Ibid. at Sec.2(17)

[4759] Ibid. at Sec.2(9)(B)

[4760] Federal Trade Commission, *Aiming for truth, fairness, and equity in your company's use of AI* (Apr. 19, 2021), https://www.ftc.gov/news-events/blogs/business-blog/2021/04/aiming-truth-fairness-equity-your-companys-use-ai

and the Equal Credit Opportunity Act, along with its January 2021 settlement requiring the photo app firm Everalbum to "delete models and algorithms it developed by using the photos and videos uploaded by its users,"[4761] the FTC warned businesses using AI to "Hold yourself accountable – or be ready for the FTC to do it for you."[4762]

At the state level, the California Consumer Privacy Rights Act (CPRA) updated the state's privacy law (the CCPA), created a privacy protection agency (the CPPA), and established a right to limit algorithmic profiling.[4763] Passed via a ballot proposition[4764], the CPRA requires businesses responding to requests for access to include meaningful information around the logic behind the decision-making processes and the likely outcome of the process with respect to the consumer."[4765] A former U.S. federal official said the CPRA would impose "new requirements for businesses to protect personal information, including by 'reasonably' minimizing data collection, limiting data retention, and protecting data security. It also strengthens accountability measures by requiring companies to conduct privacy risk assessments and cybersecurity audits, and regularly submit them to regulators. In addition, it supplements the individual rights in the CCPA with new notification requirements, clarifies that individuals have the right to opt out of both the 'sale' and 'sharing' of personal information, and adds protections for a new category of 'sensitive data.'"[4766]

A separate California ballot initiative concerning AI-based profiling for criminal justice was defeated. Proposition 25 would have removed the right of people accused of a non-violent crime to secure their release by posting bail or by order of a judge with an automated system of computer-

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[4761] Center for AI & Digital Policy, *US FTC Requires Deletion of AI Models Developed from Data Unfairly Obtained*, CAIDP Update 2.03, https://dukakis.org/center-for-ai-and-digital-policy/caidp-update-us-ftc-requires-deletion-of-ai-models-developed-from-data-unfairly-obtained/

[4762] Federal Trade Commission, *Aiming for truth, fairness, and equity in your company's use of AI* (Apr. 19, 2021), https://www.ftc.gov/news-events/blogs/business-blog/2021/04/aiming-truth-fairness-equity-your-companys-use-ai

[4763] California Privacy Protection Agency (CPPA), *Announcements*, https://cppa.ca.gov/announcements/

[4764] CPPA, *General Information about the CCPA*, https://cppa.ca.gov/faq.html

[4765] Briana Falcon and Devika Kornbacher, *Prop 24 Gets A Yes: California Privacy Rights Act to Become Law*, (Nov. 5, 2020), https://www.jdsupra.com/legalnews/prop-24-gets-a-yes-california-privacy-21838/

[4766] Cameron F. Kerry and Caitlin Chin, *By passing Proposition 24, California voters up the ante on federal privacy law*, Brookings (Nov. 17, 2020), https://www.brookings.edu/blog/techtank/2020/11/17/by-passing-proposition-24-california-voters-up-the-ante-on-federal-privacy-law/

generated predictive modelling. Civil rights groups favored Proposition 24 and opposed Proposition 25.[4767] Alice Huffman, President of California NAACP stated, that "Prop. 25 will be even more-discriminatory against African Americans, Latinos and other minorities. Computer models may be good for recommending songs and movies, but using these profiling methods to decide who gets released from jail or who gets a loan has been proven to hurt communities of color." Regarding the California Privacy Rights Act, Huffman stated, "Prop. 24 allows consumers to stop companies from using online racial profiling to discriminate against them."

The Algorithmic Accountability Act, introduced in February 2022, would require large entities that deploy "automated decision systems" to conduct impact assessments for "augmented critical decision processes," submit impact assessment summaries to the FTC, and mitigate the "material negative impacts" of automated decision systems.[4768]

Two additional jurisdictions have passed regulations specifically relating to the use of artificial intelligence. Illinois passed the Artificial Intelligence Video Interview Act, which became effective in January 2020 and requires that employers disclose whenever they use AI to analyze applicant-submitted interview videos.[4769] The act also requires employers who solely rely on AI analysis of video interviews to make employment decisions to report demographic data annually to a state agency, and for the state agency to report whether the data discloses a racial bias in the use of AI.[4770] The first report would be released by July 1, 2023.

Additionally, New York City recently passed Local Law 144 of 2021, which would require that a bias audit be performed on any automated employment decision tools prior to their use.[4771] The Department of Consumer and Worker Protection released a Notice of Public Hearing and

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[4767] California Secretary of State, *Official Voter Information Guide*, https://vig.cdn.sos.ca.gov/2020/general/pdf/complete-vig.pdf

[4768] United States Congress, *Algorithmic Accountability Act, Sec. 3(b)(1),* (Feb.3, 2022), https://www.congress.gov/bill/117th-congress/house-bill/6580/text

[4769] State of Illinois, 820 Ill. Comp. Stat. 42 (2020), *Artificial Video Interview Act*, https://ilga.gov/legislation/ilcs/ilcs3.asp?ActID=4015&ChapterID=68

[4770] Ibid. at pp. 42, 20.

[4771] New York City Local Law 2021/144, *Automated Employment Decision Tools*, https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=4344524&GUID=B051915D-A9AC-451E-81F8-6596032FA3F9

Opportunity to Comment on Proposed Rules on Sept. 19, 2022.[4772] The law is scheduled to take effect on Jan. 1, 2023.

Facial Recognition

There is growing opposition to the deployment of facial recognition technology in the United States. In May 2019, San Francisco, California became the first city in the U.S. to ban the use of facial recognition technology by city agencies.[4773] The city supervisor said, "[i]t's psychologically unhealthy when people know they're being watched in every aspect of the public realm, on the streets, in parks."[4774] Other cities, including Cambridge, Massachusetts; Oakland, California; and Portland, Oregon followed suit.[4775]

In October 2019, California enacted a moratorium on the use of facial recognition technology in police body cameras.[4776] The bill prohibits the use of biometric surveillance technology, which includes facial-recognition software, in police body cameras. It also prohibits police from taking body-camera footage and later running it through facial-recognition software. It does not prevent state and local police from using facial-recognition technology in other ways, such as in stationary cameras, and it does not apply to federal agencies such as the FBI.[4777]

In November 2021, Facebook announced it would shut down its facial recognition system and delete the face scans of more than one billion users it had gathered.[4778] The announcement followed multiple lawsuits alleging that the company had violated state and federal privacy laws as

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[4772] New York City Department of Consumer and Worker Protection, *Notice of Public Hearing and Opportunity to Comment on Proposed Rules* (Sept. 19, 2022), https://rules.cityofnewyork.us/wp-content/uploads/2022/09/DCWP-NOH-AEDTs-1.pdf

[4773] Kate Conger, Richard Fausset and Serge F. Kovaleski, *San Francisco Bans Facial Recognition Technology* (May 14, 2019), https://www.nytimes.com/2019/05/14/us/facial-recognition-ban-san-francisco.html

[4774] Ibid.

[4775] Innovation and Tech Today, *13 Cities Where Police Are Banned From Using Facial Recognition Tech*, https://innotechtoday.com/13-cities-where-police-are-banned-from-using-facial-recognition-tech/

[4776] California Legislative Information, *AB-1215 Law enforcement: facial recognition and other biometric surveillance* (Oct. 9, 2019), https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB1215

[4777] Rachel Metz, *California lawmakers ban facial-recognition software from police body cams* (Sept. 13, 2019), https://www.cnn.com/2019/09/12/tech/california-body-cam-facial-recognition-ban/index.html

[4778] Kashmir Hill and Ryan Mac, *Facebook, Citing Societal Concerns, Plans to Shut Down Facial Recognition System*, New York Times (Nov. 2, 2021), https://www.nytimes.com/2021/11/02/technology/facebook-facial-recognition.html

well as repeated recommendations to the FTC that the company's business practices, including the collection and use of facial images, violated a 2011 settlement with the Commission.

In February 2022, and after months of criticism by advocacy groups, the Internal Revenue Service announced that it would halt its program with identity verification company ID.me to use facial recognition technology to verify taxpayers' identities.[4779] The program would have required taxpayers to take video selfies to verify themselves, raising concerns that citizens will be "coerced into handing over their sensitive biometric information to the government in order to access essential services."

A 2020 bill introduced in the U.S. Congress would ban the use of facial recognition by law enforcement agencies.[4780] It would make it illegal for any federal agency or official to "acquire, possess, access, or use" biometric surveillance technology in the U.S. It would also require state and local law enforcement to bring in similar bans in order to receive federal funding.[4781] The bill was introduced by Senators Ed Markey and Jeff Merkley, and Representatives Pramila Jayapal and Ayanna Pressley.[4782]

In February 2022, the same members of Congress urged federal agencies to end the use of Clearview AI Facial Recognition technology.[4783] In letters to the Department of Homeland Security (DHS), Department of Justice (DOJ), Department of Defense (DOD), Department of Interior (DOI), and Department of Health and Human Services (HHS), they wrote, "[f]acial recognition tools pose a serious threat to the public's civil liberties

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[4779] Alan Rappeport and Kashmir Hill, *I.R.S. to End Use of Facial Recognition for Identity Verification: After a bipartisan backlash, the agency will transition away from using a service from ID.me*, New York Times (Feb. 7, 2022), https://www.nytimes.com/2022/02/07/us/politics/irs-idme-facial-recognition.html

[4780] Congress.gov, *S.4084 - Facial Recognition and Biometric Technology Moratorium Act of 2020* (June 25, 2020), https://www.congress.gov/bill/116th-congress/senate-bill/4084

[4781] MIT Technology Review, *A new US bill would ban the police use of facial recognition* (June 26, 2020), https://www.technologyreview.com/2020/06/26/1004500/a-new-us-bill-would-ban-the-police-use-of-facial-recognition/

[4782] The bill has been introduced in both chambers of the 117th Congress and is being reviewed in committees. See Congress.gov, https://www.congress.gov/search?q=%7B%22source%22%3A%22legislation%22%2C%22search%22%3A%22%5C%22Facial%20Recognition%20and%20Biometric%20Technology%20Moratorium%20Act%5C%22%22%7D

[4783] Ed Markey, *Senators Markey and Merkley and Reps. Jayapal & Pressley Urge Federal Agencies to End Use of Clearview AI Facial Recognition Technology* (Feb. 9, 2022), https://www.markey.senate.gov/news/press-releases/senators-markey-and-merkley-and-reps-jayapal_pressley-urge-federal-agencies-to-end-use-of-clearview-ai-facial-recognition-technology

and privacy rights, and Clearview AI's product is particularly dangerous. We urge you to immediately stop the Department's use of facial recognition technology, including Clearview AI's tools."[4784]

On October 22, 2022, the Federal Trade Commission (FTC) issued a press release, "FTC Recommends Best Practices for Companies That Use Facial Recognition Technologies," promoting consumer protection innovation and best practices guidance to companies developing and deploying facial recognition technologies.[4785] The statement included the release of a staff report, "Facing Facts: Best Practices for Common Uses of Facial Recognition Technologies," a product of the Commission's December 8, 2011, workshop, "Face Facts: A Forum on Facial Recognition Technology" and the Commission's March 2012 report, "Protecting Consumer Privacy in an Era of Rapid Change."[4786]

In September 2022, Congressman Ted W. Lieu of Los Angeles County and other House Democrats introduced the Facial Recognition Act of 2022, [4787] which would place limitations and prohibitions on law enforcement use of facial recognition technologies. [4788]

Lethal Autonomous Weapons

The United States are among the 70 countries that endorsed a joint statement on autonomous weapons systems at the October UN General Assembly meeting. In this joint statement, States urge "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular

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[4784] Ibid.

[4785] Federal Trade Commission, *FTC Recommends Best Practices for Companies That Use Facial Recognition Technologies* (Oct. 22, 2022), https://www.ftc.gov/news-events/news/press-releases/2012/10/ftc-recommends-best-practices-companies-use-facial-recognition-technologies

[4786] Federal Trade Commission, *Face Facts: Best Practices for Common Uses of Facial Recognition Technologies* (Oct. 2012), https://www.ftc.gov/sites/default/files/documents/reports/facing-facts-best-practices-common-uses-facial-recognition-technologies/121022facialtechrpt.pdf

[4787] United States House of Representatives, *REPS Ted Lieu, Sheila Jackson Lee, Yvette Clark, and Jimmy Gomez Introduce Bill to Regulate Law Enforcement to Use of Facial Recognition Technology*, (Sep. 29, 2022), https://lieu.house.gov/media-center/press-releases/reps-ted-lieu-sheila-jackson-lee-yvette-clarke-and-jimmy-gomez-introduce

[4788] Ibid.

International Humanitarian Law ("IHL"), including through maintaining human responsibility and accountability in the use of force."[4789]

In February 2023, the United States participated in the first global Summit on Responsible Artificial Intelligence in the Military Domain (REAIM 2023) hosted by the government of The Netherlands. Government representatives, including the United States, have agreed a joint call to action on the responsible development, deployment and use of artificial intelligence (AI) in the military domain.[4790] In this joint call, States "stress the paramount importance of the responsible use of AI in the military domain, employed in full accordance with international legal obligations and in a way that does not undermine international security, stability and accountability." They also "affirm that data for AI systems should be collected, used, shared, archived and deleted, as applicable, in ways that are consistent with international law, as well as relevant national, regional and international legal frameworks and data standards. Adequate data protection and data quality governance mechanisms should be established and ensured from the early design phase onwards, including in obtaining and using AI training data." States also "stress the importance of a holistic, inclusive and comprehensive approach in addressing the possible impacts, opportunities and challenges of the use of AI in the military domain and the need for all stakeholders, including states, private sector, civil society and academia, to collaborate and exchange information on responsible AI in the military domain."[4791]

Human Rights

The United States endorsed the Universal Declaration for Human Rights, published a detailed annual report on human rights, and has historically ranked high for the protection of human rights. But in 2021 Freedom House reported "in recent years its democratic institutions have suffered erosion, as reflected in partisan pressure on the electoral process, bias and dysfunction in the criminal justice system, harmful policies on

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[4789] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (Oct. 21, 2022), https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw 9WYcSnnAm_en.pdf.

[4790] Government of Netherlands, *Call to action on responsible use of AI in the military domain* (Feb.16, 2023), Press Release, https://www.government.nl/latest/news/2023/02/16/reaim-2023-call-to-action

[4791] Responsible AI in the Military domain Summit, *REAIM Call to Action* (Feb. 16, 2023), https://www.government.nl/documents/publications/2023/02/16/reaim-2023-call-to-action

immigration and asylum seekers, and growing disparities in wealth, economic opportunity, and political influence." Freedom House scored the United States at 83/100 in 2022[4792], same as 2021 but down from 86/100 in 2020.[4793] On transparency, Freedom House noted that the Trump administration operated with "greater opacity than its immediate predecessors, for example by making policy and other decisions without meaningful input from relevant agencies and their career civil servants."

The U.S. is not a member of the Council of Europe but did sign and ratify the COE Convention on Cybercrime,[4794] as COE conventions are open for ratification by non-members states. The U.S. could also ratify the COE Modernized Privacy Convention as well as any future COE Convention on AI.

In October 2021, the OSTP announced its intention to develop an AI "bill of rights" to "codify" the idea that "[p]owerful technologies should be required to respect our democratic values and abide by the central tenet that everyone should be treated fairly."[4795] The OSTP also issued a request for information on current or planned uses of AI-enabled biometric technologies,[4796] along with six public events on "the Bill of Rights for an Automated Society" in order "to promote public education and engagement" on AI issues.[4797] CAIDP board members suggested at the time that the process of formulating an AI Bill of Rights 1) aim for a small number of clear, powerful principles, 2) build on prior initiatives, 3) proceed

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[4792] Freedom House, *Freedom in the World 2022 - United States* (2022), https://freedomhouse.org/country/united-states/freedom-world/2022

[4793] Freedom House, *Freedom in the World 2021 – United States* (2021), https://freedomhouse.org/country/united-states/freedom-world/2021

[4794] Council of Europe, *Chart of signatures and ratifications of Treaty 185, Convention on Cybercrime*, https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/185/signatures

[4795] Eric Lander and Alondra Nelson, *Americans Need a Bill of Rights for an AI-Powered World: The White House Office of Science and Technology Policy is developing principles to guard against powerful technologies—with input from the public* (Oct. 8, 2021), https://www.wired.com/story/opinion-bill-of-rights-artificial-intelligence/

[4796] Office of Science and Technology Policy, *Notice of Request for Information (RFI) on Public and Private Sector Uses of Biometric Technologies* (Oct. 8, 2021), https://www.federalregister.gov/documents/2021/10/08/2021-21975/notice-of-request-for-information-rfi-on-public-and-private-sector-uses-of-biometric-technologies

[4797] The White House, *Join the Effort to Create A Bill of Rights for an Automated Society: OSTP Announces Public Events in November to Engage the American Public in National Policymaking about AI and Equity* (Nov. 10, 2021), https://www.whitehouse.gov/ostp/news-updates/2021/11/10/join-the-effort-to-create-a-bill-of-rights-for-an-automated-society/

on a bipartisan basis, and 4) proceed without delay.[4798] The OSTP announced a Blueprint for an AI Bill of Rights in October, 2022.[4799] The Blueprint contains five key principles: (1) Safe and Effective Systems; (2) Algorithmic Discrimination Protections; (3) Data Privacy; (4) Notice and Explanation; and (5) Human Alternatives, Consideration and Fallback. The framework is intended to apply to (1) automated systems that (2) have the potential to meaningfully impact the American public's rights, opportunities, or access to critical resources or services.[4800] In particular, the rights and opportunities in focus include civil rights, civil liberties, privacy, equal opportunity, and access to critical resources or services. The White House has indicated that the Blueprint is "fully consistent" with the OECD AI Principles and with Executive Order 13985 on Advancing Racial Equity and Support for Underserved Communities.[4801]

OECD / G20 AI Principles

The United States fully supported the OECD AI policy process, endorsed the OECD AI Principles, and is a founding member of the Global Partnership on AI. The OECD notes that the United States has taken several steps to implement the AI Principles.

Since endorsing the OECD AI Principles in 2019,[4802] the U.S. has continued to voice its support. The U.S. and EU, in their joint statement on the launched of the Trade and Technology CouncilTTC, affirmed "their commitment to (…) shared democratic values and respects universal human rights, which they have already demonstrated by endorsing the OECD Recommendation on AI," which they "intend to continue to uphold and implement."[4803] At a keynote address to the OECD in October 2021, Secretary of State Antony Blinken stated that the "OECD's Principles on

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[4798] Lorraine Kisselburgh and Marc Rotenberg, *Next Steps on U.S. AI Bill of Rights,* The Washington Spectator (Nov. 2, 2021), https://washingtonspectator.org/ai-bill-of-rights/

[4799] OSTP, *Blueprint for an AI Bill of Rights*, https://www.whitehouse.gov/ostp/ai-bill-of-rights/.

[4800] OSTP, *Applying the Blueprint for an AI Bill of Rights*, https://www.whitehouse.gov/ostp/ai-bill-of-rights/#applying

[4801] OSTP, *Blueprint for an AI Bill of Rights: Relationship to Existing Law and Policy*, https://www.whitehouse.gov/ostp/ai-bill-of-rights/relationship-to-existing-law-and-policy/

[4802] US Mission to the OECD, *White House OSTP's Michael Kratsios Keynote on AI Next Steps* (May 21, 2019), https://usoecd.usmission.gov/white-house-ostps-michael-kratsios-keynote-on-ai-next-steps/

[4803] The White House, *U.S.-EU Trade and Technology Council Inaugural Joint Statement* (Sept. 29, 2021), https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/29/u-s-eu-trade-and-technology-council-inaugural-joint-statement/

AI back in 2019—the first set of intergovernmental principles on the topic—and the launch of the Global Partnership on AI in 2020, laid a foundation for the world to build on."[4804]

UNESCO Recommendation on the Ethics of Artificial Intelligence

The United States is not a UNESCO member state and has, therefore, not endorsed the UNESCO Recommendation on the Ethics of AI.[4805]

Evaluation

The U.S. lacks a unified national policy on AI but President Biden, and his top advisors, has expressed support for AI aligned with democratic values. The United States has endorsed the OECD/G20 AI Principles. The White House has issued two Executive Orders on AI that reflect democratic values, a federal directive encourages agencies to adopt safeguards for AI. The most recent Executive Order also establishes a process for public participation in the development of federal regulations on AI though the rulemaking has yet to occur. The overall U.S. policy-making process remains opaque and the Federal Trade Commission has failed to act on several pending complaints concerning the deployment of AI techniques in the commercial sector. But the administration has launched new initiatives and encouraged the OSTP, NIST, and other agencies to gather public input. The recent release of the Blueprint for an AI Bill of Rights by the OSTP represents a significant step forward in the adoption of a National AI Policy and in the U.S.'s commitment to implement the OECD AI Principles. There is growing opposition to the use of facial recognition, and both Facebook and the IRS have cancelled facial recognition systems, following widespread protests. But concerns remain about the use of facial surveillance technology across the federal agencies by such U.S. companies as Clearview AI. The absence of a legal framework to implement AI safeguards and a federal agency to safeguard privacy also raises concerns about the ability of the U.S. to monitor AI practices.

[4804] U.S. Department of State, *Secretary Antony J. Blinken at OECD Opening and Keynote Address* (Oct. 5, 2021), https://www.state.gov/secretary-antony-j-blinken-at-oecd-opening-and-keynote-address/,
https://www.state.gov/secretary-antony-j-blinken-at-oecd-opening-and-keynote-address/;
see CAIDP Update 2.38, https://www.caidp.org/app/download/8352772763/CAIDP-Update-2.38.pdf
[4805] UNESCO, *Member State List*, https://en.unesco.org/countries/u

Uruguay

National AI Strategy

　　Strictly speaking, Uruguay does not have a general national AI development strategy, but rather has an AI development strategy for the digital government, officially called Artificial Intelligence Strategy for Digital Government (AISDG) 2020.[4806] The preparation of the AISDG was led by the Agency for Development of Electronic Government and Information Society (AGESIC).[4807] The AISDG is a part of the Digital Government Agenda[4808] and only focuses on digital government.

　　So far Uruguay has published four digital government agendas, namely: Uruguay Digital Agenda 2008-2010, Uruguay Digital Agenda 2011-2015, Uruguay Digital Agenda 2020 and Uruguay Digital Agenda 2021-2025.[4809] It should be kept in mind, however, that the issues associated with AI are considered in the 2020 Digital Government Plan,[4810] and were included in Uruguay Digital Agenda 2020[4811] and Uruguay Digital Agenda 2021-2125.[4812]

　　Uruguay's digital government strategies aim, endorsing the Declaration of Principles of the World Summit on the Information Society, to advance implementation of the commitment "to build a people-centered, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life, premised on the purposes and principles of the Charter of the United

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[4806] Uruguay Government, AGESIC*, Estrategia de Inteligencia Artificial para el Gobierno Digital*, https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/comunicacion/publicaciones/estrategia-inteligencia-artificial-para-gobierno-digital/estrategia.
[4807] *Ibid*.
[4808] *Ibid*, P.3.
[4809] Uruguay Government, AGESIC, *Agenda Uruguay Digital*, https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/politicas-y-gestion/programas/agenda-digital-del-uruguay.
[4810] Uruguay Government, AGESIC, *Plan de Gobierno Digital 2020*, https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/politicas-y-gestion/plan-gobierno-digital-2020.
[4811] Uruguay Government, AGESIC, *Agenda Uruguay Digital*, https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/politicas-y-gestion/programas/agenda-digital-del-uruguay.
[4812] *Ibid*.

Nations and respecting fully and upholding the Universal Declaration of Human Rights."[4813]

After a public-consultation process, Uruguay finally adopted the AISDG in January 2020'[4814] The general objective of the AISDG is to promote and strengthen the responsible use of AI in Public Administration. AISDG comprises (I) nine general principles and (II) four pillars, each one with specific objectives and areas of action.

The general principles are:

1) Purpose: AI must enhance the capabilities of human beings, complementing them as much as possible, aiming to improve the quality of people's life, facilitating processes and adding value to human activity;

2) General interest: AI-based solutions promoted by the State should oriented toward protecting the general interest, guaranteeing inclusion and equity;

3) Respect for human rights: Any technological solution that uses AI must respect human rights, individual freedoms and diversity;

4) Transparency: AI solutions used in the public sphere must be transparent and comply with the regulations in force;

5) Responsibility: Technological solutions based on AI must have a clearly identifiable person responsible for the actions derived from the AI solution;

6) Ethics: When the application and/or development of AI-based solutions present ethical dilemmas, they must be addressed and resolved by human beings;

7) Added value: AI-based solutions should only be used when adding value to a process;

8) Privacy by design: AI solutions should consider people´s privacy from their design stage. Personal data-protection principles in force in Uruguay are considered strategic components; and

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[4813] See Uruguay Digital Agenda 2008-2016 and World Summit on the Information Society, *Declaration of Principles: Building the Information Society: a global challenge in the new Millennium*, Geneva 2003- Tunis 2005, https://www.itu.int/net/wsis/docs/geneva/official/dop.html.

[4814] Uruguay Government, AGESIC, *Estrategia de Inteligencia Artificial para el Gobierno Digital*, https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/comunicacion/publicaciones/estrategia-inteligencia-artificial-para-gobierno-digital/estrategia.

9) Security: AI developments must comply, from their design, with the basic principles of information security. The guidelines and regulations related to cybersecurity in force in Uruguay that apply to the development of AI are considered components of this strategy.

The four pillars of the Artificial Intelligence Strategy for the Digital Government are:

1) AI governance in public administration: Ensure that the principles and comply with the recommendations outlined in the strategy;
2) Capacity development for AI: Should focus on training civil servants in different capacities related to AI;
3) Use and application of AI: Implies generating technical guides for the good use of AI in public administration, promoting algorithm transparency and designing specific action plans in strategic sectors; and
4) Digital citizenship and AI: Prepare citizens to take advantage of opportunities and face the challenges that AI poses, as well as to generate the necessary confidence in people to develop and use new technologies.

In March 2022, the OECD published a report assessing the use of AI in the public sector across Latin America and the Caribbean.[4815] The report acknowledges that the AISDG is one of the few AI strategies in the region "to be fully dedicated to the public sector".[4816] Concerning implementation, the OECD notes that "Uruguay's strategy does not always include measurable goals, leaving some actions open to interpretation"[4817] and, like the strategies from Brazil and Peru, does "not generally include specific time frames"[4818].

In June 2022, the Uruguayan government announced the establishment of an Observatory of the Use of AI in the State, which seeks

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[4815] OECD Public Governance Reviews, *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean*, (Mar. 22, 2022), https://www.oecd-ilibrary.org/governance/the-strategic-and-responsible-use-of-artificial-intelligence-in-the-public-sector-of-latin-america-and-the-caribbean_1f334543-en.

[4816] *Ibid.*, chapter 1, subchapter "Public sector components of national strategies".

[4817] *Ibid.*, chapter 1, subchapter "Action plans and enablers for success".

[4818] *Ibid.*

to further promote transparency around the AISDG and contribute to enhance trust and mitigate risks around the use of AI technologies.[4819]

The Uruguayan government currently has projects to implement AI solutions in sectors like public education and public health. This includes a predictive model of educational disengagement in elementary education, prepared jointly with the Public Education National Administration (ANEP), which is in the final stages; and a predictive model for cardiovascular disease, which is currently undergoing tests.[4820] The model for educational purposes shall initially be tested on a small scale, to watch for possible errors, and the teachers will be taught how to correctly interpret the underlying information; an ANEP director notes that care must be taken not to stigmatize students. [4821] On a similar note, an AGESIC official has acknowledged that the model for health purposes involves the use of sensitive personal data, giving rise to ethical challenges that will need to be addressed.[4822]

Public Participation

The Artificial Intelligence Strategy for Digital Government was submitted to a public-consultation process based on a draft prepared by Agency for the Development of Electronic Government and Information Society, (AGESIC).[4823] Likewise, AGESIC has published surveys on the implementation of AI in the public sector on its website.[4824]

[4819] AGESIC, Observatorio de uso de Inteligencia Artificial en el Estado, (Jun.1, 2022), https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/comunicacion/publicaciones/observatorio-uso-inteligencia-artificial-estado.

[4820] fAIr LAC Uruguay, *2. Uso responsabl*", https://fairlac.iadb.org/hub/uruguay, fAIR LAC is an initiative led by the BID Group and AGESIC, created to promote and strengthen the responsible use of AI, particularly in public administration through the implementation of the AISDG.

[4821] EL PAÍS, Inteligencia artificial: con algoritmos predicen qué liceales pueden abandonar o repetir y harán listas,(Aug. 20, 2022), https://www.elpais.com.uy/que-pasa/inteligencia-artificial-con-algoritmos-predicen-que-liceales-pueden-abandonar-o-repetir-y-haran-listas.

[4822] *Ibid.*

[4823] AGESIC, *Inici*ó la Etapa IV: Al finalizar esta etapa, conocerás el documento final de la Estrategia de Inteligencia Artificial para el Gobierno Digital, https://www.gub.uy/participacionciudadana/consultapublica.

[4824] AGESIC, Iniciativas o experiencias en Inteligencia Artificial en la Administración Pública (Sept. 21, 2021), https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/comunicacion/publicaciones/iniciativas-experiencias-inteligencia-artificial-administracion-publica.

Data Protection

The legal framework for personal data in Uruguay is built around the following regulations:

- The Universal Declaration of Human Rights;
- The American Convention on Human Rights or Pact of San José de Costa Rica;
- The Constitution of the Oriental Republic of Uruguay, especially its article 72;
- Convention 108 For the protection of individuals with regards to the Processing of Personal Data;
- Act N° 18.331 on Personal-Data Protection and Habeas Data Action (LPDP) of August 11, 2008;
- Decrees N° 664/008 of December 22, 2008 and N° 414/2009 of August 31, 2009;
- Articles 152 to 156 of Act N° 18.719 of December 27, 2010, which introduce modifications to Act N° 18.331;
- Article 158 literal B) and C) of Act N° 18.719 of December 27, 2010; and
- Budget Act N° 19.670 (articles 37 to 40) dated October 25, 2019 and its regulatory Decree N° 64/020 dated February 21, 2020.

Substantively and essentially, data protection in Uruguay is regulated by Act 18.331[4825] and its regulatory Decree N° 414/009, Regulating Law 18.331. Uruguay has a data-protection system that follows EU data-protection rules, and has regulations that adapt its data-protection system to the General Data Protection Regulation (Regulation (EU) 2016/679) (GDPR). On August 21, 2012, the European Commission formally approved Uruguay's status as a country providing "adequate protection" for personal data within the meaning of the European Data Protection Directive (Article 25(6) of Directive 95/46/EC).[4826]

Continuing with the process of full GDPR adaptation, Uruguay passed Act N° 19.670. This Act includes provisions relating to data protection that address, among others, the proactive responsibility principle (which supposes the implementation of appropriate technical and organizational measures such as privacy by design and privacy by default);

[4825] Uruguay Acts Register, https://www.impo.com.uy/bases/leyes/18331-2008.

[4826] 2012/484/EU: Commission Implementing Decision of 21 August 2012 pursuant to Directive 95/46/EC of the European Parliament and of the Council on the adequate protection of personal data by the Eastern Republic of Uruguay with regard to automated processing of personal data (notified under document C(2012) 5704), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012D0484.

the obligation to designate a data-protection officer, and data-breach notification rules. These provisions were further developed under the regulatory Decree 64/020[4827], which basically regulates the implementation and enforcement of the provisions.

Article 31 of the Act 18.331 on Personal-Data Protection and Habeas Data establishes the Personal Data Regulatory and Control Unit (URCDP)[4828] as the country's supervisory data-protection authority. The URCDP is an autonomous entity of the Agency for the Development of Electronic Government and Information Society.[4829]

The URCDP was among the co-sponsors of the 2022 GPA Resolution on Facial Recognition Technology.[4830]

Uruguay has been an accredited member of the Global Privacy Assembly since 2009, and is represented by its national authorities called Personal Data Regulatory and Control Unit. The 34th International Conference was hosted in Canelones, Uruguay in 2012.[4831]

Algorithmic Transparency

Uruguay has not developed specific regulations on algorithmic transparency but is a signatory of the Convention 108+ (Convention for protecting individuals with the Processing of Personal Data), which includes a broad provision regarding algorithm transparency (art. 9.1.c).[4832] In August 2022, the Uruguayan Data Protection Authority published a press release in celebration of the 14th anniversary of the Uruguayan Data Protection Act (Law No. 18.331), in which is was stated that "a new reform is currently being discussed, in an aspect of great importance such as the right to information, in order to make data processing more transparent,

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[4827] Uruguay Acts Register, https://www.impo.com.uy/bases/decretos/64-2020.

[4828] Unidad Reguladora y de Control de Datos Personales, https://www.gub.uy/unidad-reguladora-control-datos-personales/.

[4829] https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/.

[4830] Global Privacy Assembly, 44th Closed Session of the Global Privacy Assembly, (Oct, 2022), Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology, https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf.

[4831] Global Privacy Assembly, History of the Assembly, https://globalprivacyassembly.org/the-assembly-and-executive-committee/history-of-the-assembly/.

[4832] Council of Europe, Uruguay Ratifies Convention 108+, (Aug. 9, 2021), [Press Release], https://www.coe.int/es/web/data-protection/-/uruguay-ratfies-convention-108-.

especially when algorithms are applied for decision making by those responsible".[4833]

The express objective of AISDG is to promote algorithmic transparency, by (i) defining standards, guidance and recommendations for the analysis of the impact monitoring and auditing of the decision-making algorithms deployed in the public administration, and (ii) establishing standards and procedures for the dissemination of the processes used for the development, training and implementation of algorithms and AI systems, as well as of the obtained results.[4834]

In this sense, the government, through the AGESIC, in 2020 published guidance for the preparation of Algorithmic Impact Studies.[4835] According to the OECD, the Uruguayan Algorithmic Impact Study was designed "as a tool for analysing automated decision support systems that use machine learning", to "identify key aspects of systems that merit more attention or treatment".[4836] Uruguay also has in place a Framework for Data Quality Management, released in December 2019[4837], which provides "tools, techniques, standards, processes and good practices related to data quality".[4838]

[4833] URCDP, 14 años de la Ley de Protección de Datos Personales, 11 Aug. 2022, https://www.gub.uy/unidad-reguladora-control-datos-personales/comunicacion/noticias/14-anos-ley-proteccion-datos-personales.

[4834] Uruguay Government, AGESIC, Estrategia de Inteligencia Artificial para el Gobierno Digital, https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/comunicacion/publicaciones/estrategia-inteligencia-artificial-para-gobierno-digital/estrategia (Objective VI).

[4835] Uruguay Government, AGESICAgency for the Development of Electronic Government and the Information Society, Guía para la evaluación del Estudio de Impacto Algorítmico (EIA), (2020), https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/comunicacion/publicaciones/guia-para-estudio-impacto-algoritmico.

[4836] OECD Public Governance Reviews, *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean*, (Mar.22, 2022), https://www.oecd-ilibrary.org/governance/the-strategic-and-responsible-use-of-artificial-intelligence-in-the-public-sector-of-latin-america-and-the-caribbean_1f334543-en, chapter 4, subchapter "Trustworthy AI and alignment with the OECD AI Principles".

[4837] Uruguay Government, *Marco de referencia para la gestión de calidad de datos*, (Dec. 27,2019), https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/comunicacion/publicaciones/marco-referencia-para-gestion-calidad-datos.

[4838] OECD Public Governance Reviews, *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean*, (Mar. 22, 2022), https://www.oecd-ilibrary.org/governance/the-strategic-and-responsible-use-of-artificial-intelligence-in-the-public-sector-of-latin-america-and-the-caribbean_1f334543-en, chapter 4, subchapter "Fairness and mitigating bias".

On a more general note, the AGESIC also released a general note on its website in February 2021, with guidance for citizens about how algorithms work and how they may impact daily life.[4839]

Facial Recognition

In November 2020, Uruguay began developing a facial-identification database for public-safety purposes under the Ministry of the Interior. According to some civil-society organizations."[4840] This system was approved using the National Budget Act as an 'omnibus law,' thus preventing proper discussion about the issue due to the tight deadlines for approval of this type of law. Development of this database will be under the responsibility of the Ministry of the Interior, using the database currently under the control of the National Directorate of Civil Identification, the organization in charge of issuing identification cards. The database will include facial images of adults, first and last names, sex, date of birth, nationality, and identification card number, as well as issue and expiration date. The Ministry of the Interior has already purchased automated facial recognition software and currently has a system of 8,433 cameras distributed in the country in the 19 country´s departments, in addition to private surveillance systems. The national government has admitted that the intended use of this facial-identification database is automated surveillance using facial-recognition algorithms."[4841]

As indicated above, the Uruguayan Data Protection Authority was among the co-sponsors of the 2022 GPA Resolution on Facial Recognition Technology, which set forth "principles and expectations for the appropriate

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[4839] AGESIC, *Entender qué son y cómo funcionan los algoritmos,*(Feb. 4, 2021), https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/politicas-y-gestion/entender-son-funcionan-algoritmos.

[4840] DATYSOC, *Organizaciones de la sociedad civil y académicas expresan su preocupación por reconocimiento facial en el Proyecto de Ley de Presupuesto de Uruguay* (Nov. 17, 2020), https://datysoc.org/2020/11/17/organizaciones-de-la-sociedad-civil-y-academicas-expresan-su-preocupacion-por-reconocimiento-facial-en-el-proyecto-de-ley-de-presupuesto-de-uruguay/.

[4841] Government of Uruguay, *Law No. 19.924*, (Dec.18, 2020), https://www.impo.com.uy/bases/leyes/19924-2020#:~:text=El%20Presupuesto%20Nacional%20para%20el,%22Recursos%22%2C%20Tomo%20V%20%22 , Article 192; Government of Uruguay, Agencia Reguladora de Compras Estatales, Public Bidding No. 13/2019, published on Feb. 18, 2020, https://www.comprasestatales.gub.uy/consultas/detalle/id/744940; DATYSOC, *Uruguay: hacia una población bajo vigilancia con reconocimiento facial,* (Jan. 11,2021), https://indela.fund/uruguay-hacia-una-poblacion-bajo-vigilancia-con-reconocimiento-facial/ and https://datysoc.org/2020/11/17/organizaciones-de-la-sociedad-civil-y-academicas-expresan-su-preocupacion-por-reconocimiento-facial-en-el-proyecto-de-ley-de-presupuesto-de-uruguay/.

use of personal information in facial recognition technology", including the need for lawful basis; reasonableness, necessity, and proportionality; protection of human rights; transparency; and accountability.[4842]

Lethal Autonomous Weapons

Uruguay co-authored several documents submitted during the 7th Meeting of Governmental Experts (GGE) on Lethal Autonomous Weapons Systems (LAWS) in 2022. These included a Working Paper on emerging technologies in the area of lethal autonomous weapons systems,[4843] setting considerations for the future work of the GGE, including the acknowledgment of the "centrality of the human element in the use of force" and the "urgent need for adequate rules and limits on the development, deployment, and use of autonomous weapon systems to ensure sufficient human involvement and oversight."

Uruguay also submitted, jointly with other countries, a written commentary calling for a legally-binding instrument on autonomous weapon systems[4844] and a proposal for a roadmap towards new protocol on autonomous weapons systems.[4845]

[4842] Global Privacy Assembly, 44th Closed Session of the Global Privacy Assembly, *Resolution on Principles and Expectations for the Appropriate Use of Personal Information in Facial Recognition Technology*, (Oct.2022), https://globalprivacyassembly.org/wp-content/uploads/2022/11/15.1.c.Resolution-on-Principles-and-Expectations-for-the-Appropriate-Use-of-Personal-Information-in-Facial-Recognition-Technolog.pdf.

[4843] Paper submitted to the 2022 Chair of the Group of Governmental Experts (GGE) on emerging technologies in the area of lethal autonomous weapons systems (LAWS) on behalf of Argentina, Austria, Belgium, Chile, Costa Rica, Ecuador, Guatemala, Ireland, Kazakhstan, Liechtenstein, Luxembourg, Malta, Mexico, New Zealand, Nigeria, Panama, Peru, the Philippines, Sierra Leone, Sri Lanka, State of Palestine, Switzerland, and Uruguay, https://documents.unoda.org/wp-content/uploads/2022/05/2022-GGE-LAWS-joint-submission-working-paper-G-23.pdf.

[4844] Written Commentary by the Delegations of Argentina, Costa Rica, Ecuador, Guatemala, Kazakhstan, Nigeria, Panama, Peru, the Philippines, Sierra Leone, State of Palestine, Uruguay, Calling for a Legally-Binding Instrument on Autonomous Weapon Systems, https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fdocuments.unoda.org%2Fwp-content%2Fuploads%2F2022%2F05%2F20220309-G13-Written-Submission.docx&wdOrigin=BROWSELINK.

[4845] Proposal: Roadmap Towards New Protocol on Autonomous Weapons Systems, submitted by the delegations of [Argentina, Costa Rica, Guatemala, Kazakhstan, Nigeria, Panama, Philippines, Sierra Leone, State of Palestine, Uruguay], https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fdocuments.unoda.org%2Fwp-content%2Fuploads%2F2022%2F05%2F20220311-G10-proposal-legally-binding-instrument.docx&wdOrigin=BROWSELINK.

Human Rights

In 2022 Uruguay is ranked "free" by the Freedom House, with a score of 97/100 points.[4846] Freedom House acknowledges that Uruguay has "a historically strong democratic governance structure and a positive record of upholding political rights and civil liberties while also working toward social inclusion", even though "there are still disparities in treatment and political representation of women, transgender people, Uruguayans of African descent, and the Indigenous population".

Uruguay is among the countries with a very high level of formal adherence to the international human rights protection system, as it has ratified practically all existing international instruments on the matter. However, according to some reports, Uruguay has serious shortcomings when it comes to effective compliance with such standards.[4847] Likewise, a 2013 report by the Office of the United Nations High Commissioner for Human Rights mentions the debts that the country maintains related to certain human-rights categories contained in the treaties ratified by Uruguay.[4848] Impunity for crimes against humanity committed during the military dictatorship (1973-1985) persists and is still an open issue. In 2020, Uruguayan NGO Peace and Justice Service (SERPAJ) reported that "35 years after the democratic transition, the scenario of denial of justice for the victims of crimes against humanity of the dictatorship of Uruguay shows how the country is still far from developing and implementing satisfactory and successful public policies regarding the search for justice for serious human rights violations."[4849]

OECD's 2022 report assessing the use of AI in the public sector across Latin America and the Caribbean notes that at the end of 2013 the Uruguayan government acquired Predpol, an "AI-enabled policing software

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[4846] Freedom House, *Freedom in the World 2022 – Uruguay*, https://freedomhouse.org/country/uruguay/freedom-world/2022.

[4847] Institute of Legal and Social Studies of Uruguay (IELSUR) y United Nations Development Program in Uruguay (PNUD), *Estudio sobre armonización Legislativa conforme a los tratados de derechos humanos ratificados por Uruguay u otras normas legales con fuerza vinculante* 35 (2006).

[4848] United Nations, General Assembly, Human Rights Council, *National report submitted in accordance with paragraph 5 of the annex to Human Rights Council resolution 16/21, Uruguay*, A/HRC/WG.6/18/URY/2, 2018, https://digitallibrary.un.org/record/3877948.

[4849] SERPAJ, *Derechos Humanos en el Uruguay, Informe 2020,* p. 22, http://www.serpaj.org.uy/destacados/presentacion-del-informe-anual-2020-de-serpaj-derechos-humanos-en-el-uruguay-2020/.

to predict the potential for crimes in different areas of the country".[4850] Such software "offered predictions based on data collected by the Ministry of the Interior, but doubts remained because of the possibility that historical biases in the criminal system could bias the data against marginalised groups. Knowledge about the model design was not made public, undermining efforts to explain its decisions, although, according to public information, the machine learning algorithm relied on four variables: type of crime, location, date and time".[4851]

Uruguay's deployment of Predpol raised human rights concerns. A study on the deployment of algorithms and AI solutions in Latin America, including Predpol, stated: "A report published in 2016 by researchers from the Human Rights Data Analysis Group (HRDAG) took these criticisms further, suggesting that these models generate a feedback loop: a greater police presence in a given area makes it more likely for crime to be detected. The more crimes recorded in an area, the more likely that police forces will be deployed. According to HRDAG, this means officers will be repeatedly sent to the same areas of the city, usually those where minorities are concentrated, regardless of the true crime rate in that area."[4852]

The study continues: "At the local level, the Human Rights organization SERPAJ expressed similar concerns about PredPol in 2017. They underlined that these programs "detect patterns in the data fed in and then repeat them in future predictions." [...] If applied without due care, the logic is that of a vicious circle. Technology is used to legitimise the policeman's mythical sixth sense." Basically legitimizing arbitrary police behavior, which translates into police abuse, and is often the product of racism or classism."[4853] In 2017, the Uruguayan Ministry of Interior evaluated the performance of the software and concluded it did not perform better than "a more traditional annual retrospective reporting system based

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[4850] OECD Public Governance Reviews, *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean*, (Mar.22, 2022), Chap.3, https://www.oecd-ilibrary.org/governance/the-strategic-and-responsible-use-of-artificial-intelligence-in-the-public-sector-of-latin-america-and-the-caribbean_1f334543-en.

[4851] *Ibid.*

[4852] Juan Ortiz Freuler and Carlos Iglesias, *Algorithms and Artificial Intelligence in Latin America: a Study of Implementation by Governments of Argentina and Uruguay*, (Sep. 2018), http://webfoundation.org/docs/2018/09/WF_AI-in-LA_Report_Screen_AW.pdf.

[4853] *Ibid*. See also: SERPAJ, *Derechos Humanos en Uruguay: Informe 2017*, 2017, P. 176-177, https://sitiosdememoria.uy/sites/default/files/publicaciones-completas/2021-02/derechos-humanos-en-el-uruguay-2017.pdf.

on statistical tools created by the Police's Tactical Information Directorate", which led to the discontinuation of the project.[4854]

OECD / G20 AI Principles

Uruguay has not endorsed the OECD/G20 AI principles. However, OECD's 2022 report assessing the use of AI in the public sector across Latin America and the Caribbean analyzed the consistency of the Uruguayan AI strategy for the public sector (AISDG) with the OECD AI principles.

The OECD stated, for instance, that "Uruguay's "General Interest" principle aligns with OECD principles 1 and 2. The first part of the principle sets a social goal, namely, protecting the general interest, and guaranteeing inclusion and equity. The second part states that "work must be carried out specifically to reduce the possibility of unwanted biases in the data and models used that may negatively impact people or favor discriminatory practices."[4855]

On what regards transparency, the OECD noted that the principles set forth in the AISDG "consider transparency but make no mention of explainability. However, inclusion of the expression "active transparency" could open the principle up to broader interpretation. However, Uruguay's Algorithmic Impact Study (EIA) does consider explainability".[4856] The OECD further takes note of the fact that "Uruguay's AI principles include a requirement that technological solutions based on AI must have a clearly identifiable person responsible for the actions derived from the solutions".[4857]

Uruguay is not a member of the Global Partnership on AI, however it is a member of Digital Nations,[4858] the Open Government Partnership,[4859] Electronic Government Network of Latin America and the Caribbean.[4860] Uruguay also has endorsed the Digital Agenda for Latin America and the

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[4854] *Ibid.*

[4855] OECD Public Governance Reviews, *The Strategic and Responsible Use of Artificial Intelligence in the Public Sector of Latin America and the Caribbean*, (Mar. 22, 2022), https://www.oecd-ilibrary.org/governance/the-strategic-and-responsible-use-of-artificial-intelligence-in-the-public-sector-of-latin-america-and-the-caribbean_1f334543-en, chapter 4, subchapter "Fairness and mitigating bias".

[4856] *Ibid*, chapter 4, subchapter "Transparency and explainability".

[4857] *Ibid*, chapter 4, subchapter "Accountability".

[4858] Digital Nations, https://www.leadingdigitalgovs.org/about.

[4859] Open Government Partnership, https://www.opengovpartnership.org/our-members/.

[4860] Red de gobierno electrónico de América Latina y el Caribe (REDGEALC) website, https://www.redgealc.org/.

Caribbean eLAC2022[4861] in the context of the Seventh Ministerial Conference on the Information Society in Latin America and the Caribbean.[4862] This is assessed favorable by the OECD in terms of international cooperation.

UNESCO Recommendation on the Ethics of Artificial Intelligence

Uruguay has endorsed the UNESCO AI Recommendation.[4863] In June 2022, the CAF – Development Bank of Latin America and UNESCO signed a letter of intent to work together on the implementation of the UNESCO AI Recommendations in Latin America and the Caribbean, which shall include the creation of a regional council including governments of the region.[4864]

Evaluation

Uruguay has focused its policies on digital government — and it has done well. Proof of this is that according to the Digital Government of the United Nations (UN) 2020 global-index report, Uruguay is the Latin American regional leader and occupies the 26th place globally.[4865] In 2022, the OECD also acknowledged the soundness of Uruguay's AI strategy for the public sector.

Uruguay chose to design an AI development strategy for digital government, which constitutes a positive first step toward creating a more comprehensive AI regulatory framework. Uruguay's data protection legal regime, which is largely aligned with the GDPR, presents an promising view of the future for the country's AI regulation. Uruguay also contains relevant mechanisms in place to promote algorithmic transparency,

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[4861] Presidency of Uruguay, *Agenda Uruguay Digital 2025 y la Agenda digital para América Latina y el Caribe 2022*, https://www.gub.uy/uruguay-digital/politicas-y-gestion/agenda-uruguay-digital-2025-agenda-digital-para-america-latina-caribe-2022.

[4862] Seventh Ministerial Conference on the Information Society in Latin America and the Caribbean, https://conferenciaelac.cepal.org/7/en/documents/digital-agenda-elac2022.

[4863] UNESCO, *UNESCO member states adopt the first ever global agreement on the Ethics of Artificial Intelligence*, (Nov, 2021), https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence#:~:text=Banning%20social%20scoring%20and%20mass,used%20in%20a%20broad%20way.

[4864] UNESCO, *CAF and UNESCO will create a council to review ethical criteria for artificial intelligence in Latin America and the Caribbean*, (June. 23, 2022), https://www.unesco.org/en/articles/caf-and-unesco-will-create-council-review-ethical-criteria-artificial-intelligence-latin-america-and.

[4865] United Nations, *E-Government Knowledge Base - Uruguay*, https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/185-Uruguay.

especially in the public sector. However, facial-recognition practices remain a concern.

Venezuela

National AI Strategy

Venezuela does not have an AI Strategy. According to reports collected by Global Information Society Watch (GIS),[4866] there are laws that regulate the use and management of emerging technologies, such as:

- Organic Law of Science, Technology and Innovation
- Reform of the Organic Law of Science, Technology and Innovation
- National Science, Technology and Innovation Plan
- Law of the Government
- National Plan of Information Technologies for the State
- Telecommunications Law
- Law Against Computer Crimes
- Law on Data Messages and Electronic Signatures
- Law on the Simplification of Administrative Procedures[4867]

The use of technology is also included in the following development plans and programs:

- The Second National Economic and Social Development Plan 2013-2019
- The Homeland Plan 2019-2025
- The Economic Recovery Program for Growth and Prosperity
- The Plan for the Country's Future, which was created by the political opposition

Public Participation

Venezuela has experienced continued and wide-ranging restrictions to civic and democratic spaces thus hindering public participation. The Office of the High Commissioner for Human Rights (OHCHR) observed cases of stigmatization, criminalization and threats against dissenting voices, civil society, media and trade unionists to affect their capacity to effectively carry out their legitimate duties.[4868] While the report by the United Nations High Commissioner for Human Rights observed some willingness by the government to open dialogue with civil societies

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[4866] Global Information Society Watch, Venezuela, https://giswatch.org/country/venezuela.
[4867]Ibid.
[4868] Report of the United Nations High Commissioner for Human Rights, *Situation of Human Rights in the Bolivarian Republic of Venezuela* (2022), https://reliefweb.int/report/venezuela-bolivarian-republic/situation-human-rights-bolivarian-republic-venezuela-report-united-nations-high-commissioner-human-rights-ahrc5059-advance-unedited-version.

following two high level meetings between the government and Foro Civico (a group of civil society organizations) in April 2022, the above challenges persist.[4869]

The Report of the United Nations High Commissioner for Human Rights further observes that reforms relating to public participation must be supported by genuine engagement with civil society actors through meaningful, inclusive, genuine consultation. "A favourable environment for work by civil society must be strengthened allowing zero tolerance for attacks against human rights defenders and journalists implementing preventive policies and ensuring effective accountability mechanisms."[4870]

There is currently no consultation process in the field of AI but should Venezuela develop a national AI strategy, its drafting would benefit from citizens' insights.

Data Protection

There is no specific regulation regarding data privacy. However, Article 28 of the Constitution of the Bolivarian Republic of Venezuela (CRBV) defines the Habeas Data as a ground for individual complaints before the Constitutional Court. "Anyone has the right of access to the information and data concerning him or her or his or her goods which are contained in official or private records, with such exceptions as may be established by law, as well as what use is being made of the same and the purpose thereof, and to petition the court of competent competence for the updating, correction or destruction of any records that are erroneous or unlawfully 'affect the petitioner's right. He or she may, as well, access documents of any nature containing information of interest to communities or groups of persons."

The e-Government law (*ley de Infogobierno*) also provides in its Article 75 for the right to information about automated data collection.[4871] Also of relevance are the 1991, Law on the Protection of the Privacy of Communications, the 2001 Special Law Against Computer Related Crimes, and the 2018 Regulation for the Protection of the Rights of Users in the Provision of Telecommunications Services.[4872]

[4869] Ibid.

[4870] Ibid., p. 12.

[4871] e-Government law,
https://www.asambleanacional.gob.ve/storage/documentos/leyes/ley-de-infogobierno-20211108160540.pdf

[4872] Government of Venezuela, Ministry of Communication and Information,
http://www.conatel.gob.ve/marco-legal-2/.

Based on the Supreme Court case law, employers have a general duty to uphold employees' right to privacy and must observe the data protection principles determined by the Supreme Court (DP Principles). "The DP Principles apply to systems, registers or compilations of data that allow the creation of a complete or partial profile of an individual forming part of such system, register or compilation (in this case, an employee, for example). There is no clear outline of what a "complete or partial profile" involves. This means that, in general, employee consent is required to process personal data. Venezuelan case law does not draw a distinction between forms of personal data. Therefore, there are no separate standards for the protection of sensitive data."[4873]

According to the data protection Principles, "employers must (i) inform the employee what data has been collected, (ii) inform the employee of the purpose(s) of the collection of their personal data, (iii) inform the employee who will be the final users of the data (ie, whether any third parties will have access to the data) and (iv) allow the employee to correct any erroneous data or delete any data that may be incomplete, inadequate or excessive in relation to the purpose(s) for which they were gathered (and this must be communicated to any third party who has been given access to the personal data)." Employers have a strict obligation to keep employee health information and records confidential.[4874]

Despite the fact that these laws exist, there are reports of challenges in implementation due to the lack of an independent data protection oversight authority.[4875] Further, there are concerns of government surveillance and counterintelligence activities through the introduction of public digital ID programs such as Carnet de la Patria as well as the mobile app VeQR-Somos that requires vast amounts of personal data that can be used to track both personal data and location.[4876]

Deepfakes and Computational Propaganda

According to experts, deepfakes are the latest tool used in disinformation campaigns promoting Venezuela. In 2023, short Youtube videos have been circulating with fake hosts of a seemingly Western news broadcast to spread propaganda. The purported journalists on screen are

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[4873] Ibid.

[4874] Ibid.

[4875] Freedom House, *Venezuela Freedom on the Net 2022*, https://freedomhouse.org/country/venezuela/freedom-net/2022.

[4876] Ibid.

artificial intelligence avatars created by a company called Synthesia that for just $30 a month will say whatever the buyer wants.[4877]

Lethal Autonomous Weapons

Venezuela is a party to the Convention on Certain Conventional Weapons (CCW),[4878] which aims to prohibit or restrict the use of certain types of weapons that are considered to cause unnecessary or unjustifiable suffering to combatants or to affect civilians indiscriminately. The CCW does not specifically address lethal autonomous weapons, but the topic has been discussed in CCW meetings and some countries have called for a ban on their development, production, and use.

In October 2022, Venezuela endorsed, together with 69 other countries, a joint statement on autonomous weapons systems at the UN General Assembly meeting. In this joint statement, States urged "the international community to further their understanding and address these risks and challenges by adopting appropriate rules and measures, such as principles, good practices, limitations and constraints. We are committed to upholding and strengthening compliance with International Law, in particular International Humanitarian Law, including through maintaining human responsibility and accountability in the use of force."[4879]

In February 2023, Venezuela endorsed, along with more than 30 other Latin American and Caribbean states, the Belén Communiqué,[4880] which calls for "urgent negotiation" of a binding international treaty to regulate and prohibit the use of autonomous weapons to address the grave concerns raised by removing human control from the use of force.

[4877] Maria Luisa Paul, *'Noah' and 'Daren' report good news about Venezuela. They're deepfakes* (March 2, 2023),
https://www.washingtonpost.com/nation/2023/03/02/deepfake-videos-venezuela-disinformation/
[4878]United Nations, *The Convention on Certain Conventional Weapons*,
https://www.un.org/disarmament/the-convention-on-certain-conventional-weapons/
[4879] United Nations (UN) General Assembly, First Committee, *Joint Statement on Lethal Autonomous Weapons Systems First Committee, 77th United Nations General Assembly Thematic Debate – Conventional Weapons* (21 Oct. 2022),
https://estatements.unmeetings.org/estatements/11.0010/20221021/A1jJ8bNfWGlL/KLw9WYcSnnAm_en.pdf.
[4880] *Communiqué of the Latin American and the Caribbean Conference of Social and Humanitarian Impact of Autonomous Weapons* (Feb. 24, 2023),
https://www.rree.go.cr/files/includes/files.php?id=2261&tipo=documentos

Human Rights

In 2022, Freedom House scored Venezuela as "not free" (14/100).[4881] The Report by Freedom House on digital rights and the status of human rights on the net in Venezuela gives the country a 30 out of 100 score.[4882] The report highlights cases of lack of access and blockage of the Internet by the government, violations of right to privacy, surveillance among other violations of digital rights. The Freedom House' report on Venezuela Freedom on the Net in 2022 further points out concerns by human rights activists regarding arrest of trade unionists, health workers, journalists and others for messages on platforms such as WhatsApp and Twitter which is indicative of government surveillance of these platforms.[4883]

The United Nations Human Rights Council put in place the Independent Fact-Finding Mission for Venezuela to look into allegations of human rights violations.[4884] The fact-finding mission released its report in September 2022 that indicated continued human rights violations including acts of torture, sexual violence and mass surveillance by the Venezuelan government to repress dissenting voices. Following this report, the United Nations Human Rights Council extended the mandate of the fact-finding mission for a further 2 years.[4885] According to Amnesty International's latest report,[4886] the government continues to use repression and intimidation to silence dissent and maintain its grip on power, with widespread human rights abuses committed by security forces and pro-government armed groups.

[4881] Freedom House, *Freedom in the World – Venezuela* (2022), https://freedomhouse.org/country/venezuela/freedom-world/2022

[4882] Freedom House, *Venezuela Freedom on the Net* (2022), https://freedomhouse.org/country/venezuela/freedom-net/2022

[4883] Ibid.

[4884] United Nations Human Rights Council, *Independent International Fact-Finding Mission on the Bolivarian Republic of Venezuela,* (2019), https://www.ohchr.org/en/hr-bodies/hrc/ffmv/index

[4885] United Nations Human Rights Council, *Venezuela: new UN report details responsibilities for crimes against humanity to repress dissent and highlights situation in remotes mining areas* (Sept. 2022), https://www.ohchr.org/en/press-releases/2022/09/venezuela-new-un-report-details-responsibilities-crimes-against-humanity 20.09.2022.

[4886] Amnesty International Report 2021/22*, The state of the world's human rights* (Jan. 28, 2023), https://www.amnesty.org/en/documents/pol10/4870/2022/en/.

OECD AI Principles / G20 AI Guidelines

Venezuela is not a member of the OECD[4887] and has not endorsed the OECD AI principles.

UNESCO Recommendation on the Ethics of Artificial Intelligence

The Venezuela is a member state of UNESCO having joined as a member on 25th September, 1946.[4888] Venezuela endorsed the UNESCO Recommendation on the Ethics of AI in November 2021.[4889]

CAF, the development bank of Latin America, and UNESCO signed a letter of intent to collaborate on the implementation of the recommendation on artificial intelligence ethics in Latin America and the Caribbean. They pledged to create a Regional Council composed of national and local governments in the region which will support their implementation efforts.[4890] It is so far not known whether Venezuela will take part in this endeavor.

Evaluation

Venezuela has neither an AI strategy nor a data protection law with an independent supervisory authority. In a country deemed "not free," the use of AI to comfort the power in place and reinforce authoritarian practices is a major concern. However, Venezuela endorsed the UNESCO Recommendation on the Ethics of AI which could prove useful in taming the risks posed by AI.

[4887] OECD AI Observatory, *Policies, data and analysis for trustworthy artificial intelligence*, https://oecd.ai/en/
[4888] UNESCO, *Members States List,* https://en.unesco.org/countries/v
[4889] UNESCO, *Ethics of Artificial Intelligence*, https://www.unesco.org/en/artificial-intelligence/recommendationethics, https://www.unesco.org/en/articles/unesco-member-states-adopt-first-ever-global-agreement-ethics-artificial-intelligence
[4890] G. Ramos, *Inteligência Artificial ética e responsável: das palavras aos fatos e direitos*, Somos Ibero-America (Feb. 1, 2023), https://www.somosiberoamerica.org/pt-br/tribunas/inteligencia-artificial-etica-e-responsavel-das-palavras-aos-fatos-e-direitos/

Vietnam

National AI Strategy

   In March 2021, the Prime Minister's Office for the Socialist Republic of Vietnam published the government's "National Strategy on R&D and Application of Artificial Intelligence. The Strategy outlines Vietnam's AI ambitions projected through 2030, with specific, measurable, and incremental targets by 2025 and 2030.[4891] The bulk of the Strategy focuses on planned investments in education, innovation, and infrastructure, aimed at helping Vietnam become a leading hub for AI technologies within the Association of Southeast Asian Nations (ASEAN).

   The Strategy proclaims AI as "the background technology for the Fourth Industrial Revolution," pledging to align the nation's AI investments with its "socio-economic development tasks and goals," "national defense and security," "to unlock the potentials of the entrepreneurs," and to "effectively mobilize all resources." Vietnam's AI strategy additionally outlines the government's commitment to creating "a system of legal documents and regulations related to AI" aimed at "developing and applying AI with people and entrepreneurs at the center, avoiding technology abuse and infringement upon legitimate rights and interests of organizations and individuals."

   The strategy assigns to Vietnam's Ministry of Public Security a lead role in "develop[ing] and supplement[ing] additional legal documents on privacy protection, human rights, security related to the development and application of AI and in ensuring network security for AI-related activities."

   In keeping with principles of digital inclusivity, the Strategy commits to applying AI towards elevating public services, pledging to improve the "operational efficiency of the public administrative management system in social resources allocation and mobilization, social management and urban planning, especially in big cities such as Hanoi and Ho Chi Minh City and Da Nang."

   Vietnam's AI strategy also forecasts plans to design AI applications in "military, defense, in the advancing and modernization of equipment and weapons, in the development of operational plans, in national defense systems….immigration management systems, high-tech crime control systems, and [to] develop proactive technical solutions to prevent crimes using scientific achievements on AI."

[4891] Viet Nam Government Portal, *National Strategy On R&D and Application of Artificial Intelligence,* (Apr. 10, 2021), https://en.baochinhphu.vn/national-strategy-on-rd-and-application-of-artificial-intelligence-11140663.htm

Public Participation

Vietnam's AI strategy does not mention any structured process for public participation in the development of AI policy. As noted, the strategy tasks the Ministry of Public Security with devising a legal structure that places "people and entrepreneurs at the center," yet there has been no indication of an opportunity for the public to give feedback on potential AI regulations since the release of the strategy. By contrast, a draft Personal Data Protection Bill was issued for public consultation on 9th February 2021.[4892] The ratified data protection law, Decree No. 53, aimed to boost cybersecurity in Vietnam, went into effect on October 1, 2022; yet no evidence was available regarding whether or how public participation meaningfully contributed to the recent data privacy legislation.[4893]

Data Protection

While Vietnam has not yet enacted a comprehensive data protection law, the country's constitution includes provisions identifying rights pertaining to personal data. As per article 21 of the Constitution of Vietnam, "everyone is entitled to the inviolability of personal privacy, personal secrecy, and familial secrecy and has the right to protect his or her honor and prestige."[4894] Several laws and regulations are also of relevance.

The Vietnamese government ratified a Law on Cybersecurity, Decree No. 53/2022/ND-CP ("Decree 53/2022") on 15 August 2022 which became fully effective on 1 October 2022.[4895] In keeping with OECD Principle 1.4 on "robustness, security, and safety," the law prescribes measures aimed at shoring up data security and restricting illegal activities, in part via a "data localization" requirement mandating that foreign entities store certain categories of data pertaining to users in Vietnam within the

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[4892] Yen Vu and Eunjung Han, *Vietnam's Personal Data Protection Decree: Recent Developments & What to Expect* (March 10, 2022), *https://rouse.com/insights/news/2022/vietnam-s-personal-data-protection-decree-recent-developments-and-what-to-expect*

[4893] Viet Nam Government Portal, *Elaborating a Number of Articles of the Law on Cybersecurity in Viet Nam* (Aug. 15, 2022), https://thuvienphapluat.vn/van-ban/EN/Cong-nghe-thong-tin/Decree-53-2022-ND-CP-elaborating-the-Law-on-cybersecurity-of-Vietnam/527750/tieng-anh.aspx

[4894] International IDEA, *The Constitution of the Socialist Republic of Vietnam* (2013), Unofficial Translation from Vietnamese, https://constitutionnet.org/sites/default/files/tranlation_of_vietnams_new_constitution_en_uk_2.pdf

[4895] Socialist Republic of Vietnam, *Decree: Elaborating a number of articles on the law on cybersecurity of Vietnam* (Nov. 7, 2022)*, https://thuvienphapluat.vn/van-ban/EN/Cong-nghe-thong-tin/Decree-53-2022-ND-CP-elaborating-the-Law-on-cybersecurity-of-Vietnam/527750/tieng-anh.aspx*

country's borders. However, there is insufficient infrastructure to prevent cybersecurity and digital rights violations of Vietnamese citizens.[4896] Also, as indicated in this report, there is State-sponsored espionage and surveillance that infiltrates the digital real estate of Vietnamese citizens.[4897] Citizens of Vietnam remain both a source and victim of cyberattacks. In 2019, Kaspersky, a leading cybersecurity firm declared Vietnam as the 'second most cyber-attacked country in the world.'[4898] The country is also the source of cyberattacks. In 2018, over 992,952 originated in Vietnam.[4899]

Data protection norms have additionally been developed through other laws, notably the 2016 Law on Network Information Security ("LNIS").[4900] This law assigns organizations the responsibility of protecting the personal data to which it is given access, and identifies legal consequences for individuals and organizations who violate these provisions. Section 2 of the law stipulates a requirement of consent from individuals when organizations collect personal information (Article 17), and explicitly requires the deletion of personal data upon accomplishment of the purpose (Article 18). Sanctions punishing violations of personal data use can also be found in other regulations. For example, Vietnam's 2020 Decree No.15/2020/ND-CP assigns fines for infringements of personal information and privacy including email, postal and telephonic spam.[4901]

None of these data protection rules apply to the state itself. While the new law requiring data localization may indeed strengthen cybersecurity, it also provides the Vietnamese government with additional

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[4896]Elina Noor and Mark Bryan Manantan, *Raising Standards: Data and Artificial Intelligence in Southeast Asia,* The Asia Society Policy Institute (July 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

[4897] Ibid.

[4898] Anh, *Vietnam both victim and source of massive cyber-attacks,* VN Express International (Jan; 23, 2019), https://e.vnexpress.net/news/news/vietnam-both-victim-and-source-of-massive-cyber-attacks-3872863.html

[4899] Ibid.

[4900] Institute for Democracy and Electoral Assistance, *The Constitution of the Socialist Republic of Vietnam* (2013), *https://constitutionnet.org/sites/default/files/tranlation_of_vietnams_new_constitution_en uk_2.pdf*

[4901] Tran Luu**,** *Vietnam to impose heavy sanctions to protect personal data,* (Feb. 21, 2022) https://www.sggpnews.org.vn/science_technology/vietnam-to-impose-heavy-sanctions-to-protect-personal-data-97448.html

authoritarian leverage, cementing restrictions on residents' access to international media, social media, and other applications.[4902]

Vietnam's landscape of data governance is a collage of legal instruments variously reflected in the country's constitution, criminal code, civil code, and a raft of sectoral and procedural regulations. The Ministry of Public Security's (MPS) much-anticipated Draft Decree on Personal Data Protection ("draft PDPD") and the Draft Decree on Sanctions against Administrative Violations in Cybersecurity ("draft cybersecurity decree") constitute the Vietnamese government's ambitious effort at consolidating its numerous regulations into one comprehensive law.

In February 2023, the Vietnamese Government issued Resolution No. 13/NQ-CP (Resolution 13) to formally approve all the Personal Data Protection Decree (PDPD) formulation dossier, including the draft decree's content, as well as to seek appraisal comments from the National Assembly Standing Committee (NASC) on the draft decree. Resolution 13 signifies the upcoming issuance of the PDPD.[4903]

One of the significant developments out of Resolution 13 is that until then the Vietnamese law, including the prior published version of the Draft PDPD, had never used the terms "data controller", "data processor," and "parties controlling and processing personal data." According to Tilleke & Gibbins,[4904] the inclusion of these terms suggests that the latest version of the Draft PDPD has adopted the GDPR-like concepts of "data controller" and "data processor." However, until the latest version of the Draft PDPD can be assessed, it is uncertain how these concepts are defined and whether they are fully in line with GDPR definitions, let alone rights and obligations.[4905]

Algorithmic Transparency

Vietnam's AI strategy commits to the development of a legal infrastructure that will uphold "privacy protection, human rights, security related to the development and application of AI"; yet there is no mention

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[4902] Freedom House, *Freedom in the World 2022: the global expansion of authoritarian rule* 2022, (Nov. 10, 2022), https://freedomhouse.org/country/vietnam/freedom-world/2022

[4903] Tran MH, *Vietnam: Latest Updates on the Draft Personal Data Protection Draft Decree* via Connect Tech (Feb. 2023), https://www.connectontech.com/vietnam-latest-updates-on-the-draft-personal-data-protection-draft-decree/

[4904] Tilleke & Gibbins. *Vietnam's Personal Data Protection Decree Takes Important Step Toward Issuance* (Feb. 8, 2023), https://www.tilleke.com/insights/vietnams-personal-data-protection-decree-takes-important-step-toward-issuance/

[4905] Ibid.

in either this or other official documents of a pledge to ensure algorithmic transparency.[4906] It remains to be seen what will be the final provisions of the PDPD once adopted.

Based on the Freedom House Country Report on Vietnam,[4907] the government uses a variety of legislative machinery to acquire citizens' personal data and engineer sophisticated forms of mass surveillance. These include the Cybersecurity Law 2019, the Publishing Law, the Penal Code, the Law on Protection of State Secrets 2018, the Law on Information Security 2016, and a number of decrees. One notable example is Bluezone--a tracing application ostensibly introduced to control COVID-19. Freedom House reports that "it shared user data with the government without disclosing that fact to users. The source code was not made available for external auditing. In late May 2021, the Ministry of Health issued an instruction to local governments that recommended sanctioning people who did not install Bluezone and other COVID apps before entering certain public places and facilities; local authorities were tasked with determining the specific sanction. As of May 2021, Bluezone had reached 31.88 million downloads." The report cites other examples of State-supported phishing attacks to acquire the personal data of citizens, especially dissidents and activists. No right to algorithmic transparency exist which would allow for citizens to obtain judicial redress, should it be a possibility.

Rice ATMs

In the early months of the COVID-19 lockdown in 2020, a business leader in Vietnam partnered with community organizations to deploy "rice ATMs" (automatic rice-dispensing machines) enabled with AI-facial recognition technology to ration food to people in need.[4908] This program was widely publicized internationally, credited as an instance of applying advanced technology towards resolving basic human needs during this

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[4906] Viet Nam Government Portal, *National Strategy On R&D and Application of Artificial Intelligence* (Apr. 10, 2021), https://en.baochinhphu.vn/national-strategy-on-rd-and-application-of-artificial-intelligence-11140663.htm

[4907] Freedom House. *Freedom on the Net 2022 Country Report: Vietnam* (2022), https://www.google.com/url?q=https://freedomhouse.org/country/vietnam/freedom-net/2022&sa=D&source=docs&ust=1678780166051975&usg=AOvVaw2QCzDtKk6e7nu6S13Yq5Vt

[4908] Elina Noor and Mark Bryan Manantan, *Raising Standards: Data and Artificial Intelligence in Southeast Asia,* The Asia Society Policy Institute (July 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

public health crisis.[4909] This popular program has reportedly helped cement a benign view of AI and facial recognition technology within the country's population.[4910]

Smart City Initiatives

Vietnam's "smart city" initiative began as a directive from the prime minister in 2018 to promote sustainable cities.[4911] The country's 2021 national AI strategy elaborated on this plan, promising substantial AI investments to upgrade and target resources in the country's most populous cities – namely Hanoi, Ho Chi Minh, Da Nang, and Can Tho – to benefit the quality of life and improve services ranging from energy distribution to traffic control to water supply to education. Vietnam's Ministry of Information and Communication released codified principles regarding the smart cities project, committing to "a people-centered approach…[to] encourage the neutrality of technology…[to] pilot new services with improvements based on the experience of users; [to] use open standards or open sources."[4912] The OECD AI Policy Observatory has identified the smart cities initiative as addressing its core principle 2.2, "Fostering a digital ecosystem for AI." Vietnam's smart city policies additionally echo OECD's core principle 1.1 pertaining to "inclusive growth, sustainable development, and wellbeing." Alongside these potentially vast benefits, there are credible reasons for concern that the smart cities project will include surveillance technologies that will further the government's capacity for authoritarian control.[4913]

[4909] Le, Vodden, Wu and Atiwesh, *Policy Responses to the COVID-19 Pandemic in Vietnam*, Int. J. Environ. Res. Public Health (2021), p. 559, https://doi.org/10.3390/ijerph18020559

[4910] Klingler-Vidra, *Inclusive Innovation policy for the next development stage in Viet Nam*, United Nations Development Programme (UNDP) 2020, Vietnam. (Nov. 11, 2022),https://www.undp.org/vietnam/publications/inclusive-innovation-policy-next-development-stage-viet-nam

[4911] Van Cuong, Nguyen, *The Emerging Legal Framework for Smart Cities in Vietnam,* Smart Cities in Asia. Springer, Singapore (2022), pp. 79-90. (Nov. 11, 2022) https://link.springer.com/chapter/10.1007/978-981-19-1701-1_7

[4912]Viet Nam Government Portal, *Smart City Development (Version 1.0)* https://thuvienphapluat.vn/van-ban/Xay-dung-Do-thi/Quyet-dinh-829-QD-BTTTT-2019-Khung-tham-chieu-ICT-phat-trien-do-thi-thong-minh-phien-ban-1-0-422873.aspx

[4913] House, Freedom, *Freedom in the World 2022: the global expansion of authoritarian rule (2022)* (Nov. 10, 2022), https://freedomhouse.org/country/vietnam/freedom-world/2022

Aus4Innovation: Innovation Policy Exchange with Australia

In 2017, Australia and Vietnam announced an "innovation partnership" named "Aus4Innovation", aimed at building prosperity within Vietnam and furthering a strategic and economic partnership between the two countries. Currently overseen by CSIRO, the Australian Government agency responsible for scientific research, Aus4Innovation includes a notable "policy exchange", aimed at helping Vietnam "bring up the living standards of all of [its] citizens over the coming decades", while setting the stage for Australia to be a source of policy influence in establishing "an international best practice review based on expert input from Australia."[4914] The OECD AI Policy Observatory has identified Aus4Innovation as representing an instance of its core principle 2.5, "International cooperation for trustworthy AI."[4915] The Aus4Innovation Program also supported 2022 Vietnam Artificial Intelligence Day, (AIV4N), a conference that brings together government representatives, policymakers, and practitioners to discuss the latest development in Vietnam's AI landscape.[4916]

Public Security and Identity Verification

Since April 2021, the Inspection Commissions of Party organizations at all levels in the PPSF have been mandated with building their action plans to realize the Party resolutions regarding digital technology, artificial intelligence, and the 4th Industrial Revolution, contributing to building elite and modern public security forces by 2030.[4917]

In December 2022, Deputy Minister Luong Tam Quang asked the Immigration Department to deploy 37 level-4 public services related to entry and exit, perfect the issuance of electronic passports, promote research and application of science and technology, artificial intelligence, and biometric identification to the management of entry and exit.[4918]

[4914] CSIRO, *Aus4Innovation Policy Exchange* (Nov. 11, 2022), https://research.csiro.au/aus4innovation/activities/policy-exchange-program/
[4915] OECD AI Policy Observatory, *International co-operation for trustworthy AI (Principle 2.5),* (Nov. 11, 2022), https://oecd.ai/en/dashboards/ai-principles/P14
[4916] Darmaraj, *Vietnam Ministry of Science and Technology Unveils AI4VN,* https://opengovasia.com/vietnam-ministry-of-science-and-technology-unveils-ai4vn/
[4917] Ministry of Public Security Of Socialist Republic Of Vietnam, *Deputy Minister Luong Tam Quang attends year-end conference of the Immigration Department,* (Dec. 27, 2022), https://en.bocongan.gov.vn/news-events/deputy-minister-luong-tam-quang-attends-year-end-conference-of-the-immigration-department-t9637.html
[4918] Ministry of Public Security Of Socialist Republic Of Vietnam, *Deputy Minister Luong Tam Quang attends year-end conference of the Immigration Department* (Dec. 27, 2022), https://en.bocongan.gov.vn/news-events/deputy-minister-luong-tam-quang-attends-year-end-conference-of-the-immigration-department-t9637.html

Predictive Policing

In its July 2022 report on inclusive development and artificial intelligence in Southeast Asia, the Asia Society Policy Institute notes, if AI adoption is "nascent" in Vietnam, "the topic of ethics in relation to AI has barely begun to percolate in the country."[4919] The institute highlights with particular concern Vietnam's stated plans to use AI applications in policing and immigration, "to proactively prevent crimes," with the implication that Vietnam intends to apply surveillance technologies in developing predictive policing. The Asia Society Policy Institute report summarizes, "While there is some degree of recognition in Vietnam of the importance of AI ethics, their formulation and application remain underexplored."

EdTech and Children Tracking

Human Rights Watch conducted an analysis of education technology (EdTech) products between March and August 2021 on the prevalence and frequency of tracking technology embedded in each product. This report is a global investigation of EdTech products endorsed by 49 governments for children's online education learning during the Covid-19 pandemic. Vietnam was one of the 49 countries analyzed.

It is reported that out of a total of 65 EdTech products built or financed by governments, the majority—56, or 86 percent—were found transmitting children's data to AdTech companies. Included in the 56 government-built EdTech products is Vietnam's OLM, which was also noted to have failed to offer any privacy policy at all, thus keeping students in the dark about how the government was handling their personal data and privacy.[4920]

Human Rights

Vietnam has been designated as "Not Free" by Freedom House, scoring 19 out of 100 in the think tank's "freedom in the world" metrics, with particularly low marks (3 out of 40) for "political rights", and a low score (16 out of 60) for metrics pertaining to "civil liberties".[4921] As the most recent Freedom House global report elaborates, "freedom of

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[4919] Elina Noor and Mark Bryan Manantan, *Raising Standards: Data and Artificial Intelligence in Southeast Asia,* The Asia Society Policy Institute (July, 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

[4920] Human Rights Watch, *How Dare They Peep into My Private Life* (May 25, 2022), https://www.hrw.org/report/2022/05/25/how-dare-they-peep-my-private-life/childrens-rights-violations-governments#6693

[4921] Freedom House, *Freedom in the World 2022: the global expansion of authoritarian rule* (2022), (Nov. 10, 2022), https://freedomhouse.org/country/vietnam/freedom-world/2022

expression, religious freedom, and civil society activism are tightly restricted" within Vietnam, with leaders having increasingly "cracked down on citizens' use of social media and the internet to voice dissent and share uncensored information." Vietnam's data protection laws, requiring "data localization" within the country's borders for a range of applications, additionally restricts residents' ability to access information and media from abroad. Freedom House further ranks Vietnam 22 out of 100, "Not Free" in its Freedom On The Net Report for 2022. This was attributed primarily to State restrictions over content access, its escalation of digital surveillance and harassment of digital activists.[4922]

OECD / G20 AI Principles

Vietnam has not explicitly endorsed the OECD / G20 AI principles.[4923] Yet, several elements of its national strategy echo some of the OECD AI principles. For example, OECD AI Principle 1.2, "AI systems should be designed in a way that respects the rule of law, human rights, democratic values, and diversity and should include appropriate safeguards to ensure a fair and just society." The Vietnam AI Strategy endorses "developing and applying AI with people…at the center, avoiding technology abuse and infringement upon legitimate rights and interests of organizations and individuals," and pledges to "develop and supplement additional legal documents on privacy protection, human rights, security related to the development and application of AI and on ensuring network security for AI-related activities."

Vietnam most robustly endorses a version of OECD AI principle 2.1, "Governments should facilitate public and private investment in research and development to spur innovation in trustworthy AI."[4924] Vietnam's AI Strategy document mirrors this language in its pledge to establish "national innovation centers for AI; increasing the number of innovative AI startups and total investment in the AI sector in Vietnam…[to] focus the public investment in forming mutually used, shared and open administrative databases."

[4922] Freedom House, *Freedom on the Net 2022 Country Report: Vietnam* (2022). https://www.google.com/url?q=https://freedomhouse.org/country/vietnam/freedom-net/2022&sa=D&source=docs&ust=1678780166051975&usg=AOvVaw2QCzDtKk6e7nu6S13Yq5Vt

[4923] OECD AI Policy Observatory, *National Strategy on R&D and Application of AI* (Nov. 4, 2022), https://oecd.ai/en/dashboards/countries/VietNam

[4924] OECD AI Policy Observatory, *Investing in AI research and development (Principle 2.1),* (Nov. 4, 2022), https://oecd.ai/en/dashboards/ai-principles/P10

The OECD AI Policy Observatory report on Vietnam's AI policies highlights the country's investment in Ho Chi Minh as a Smart City beginning in 2017 as marking the implementation of OECD AI Principle 2.2, "Fostering a digital ecosystem for AI: Governments should foster accessible AI ecosystems with digital infrastructure and technologies, and mechanisms to share data and knowledge."[4925] The report elaborates, "Ho Chi Minh (HCM) City is being transformed into a smart city and will develop blockchain infrastructure to minimize potential risks…to help the City deal with problems such as rapid population growth and inadequate healthcare, education, and transport services….; to ensure sustainable economic growth, taking the City towards a digital, knowledge-based economy and attracting investments."[4926]

Additionally, the OECD AI Policy Observatory has identified Vietnam's partnership with Australia, which includes a significant policy exchange component, as an instance of its core principle 2.5 pertaining to "international cooperation for trustworthy AI."[4927]

UNESCO Recommendation on the Ethics of Artificial Intelligence

In November 2021, Vietnam endorsed the UNESCO Recommendation on the Ethics of AI, together with 192 other UNESCO member states.[4928] However, there is no evidence so far that Vietnam has developed policies or oversight mechanisms to support the implementation of the UNESCO Recommendation, other than in the area of data protection.[4929]

Evaluation

In March 2021, the Prime Minister's Office released its formal AI strategy for the next decade. The government of Vietnam pledged that the nation would become an innovation leader in AI technology within the ASEAN nations, promising to apply AI towards the betterment of its citizens and to devise a system of laws and regulations that would prevent "abuse and infringement upon legitimate rights and interests of

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[4925] OECD AI Policy Observatory, *Fostering a digital ecosystem for AI (Principle 2.2),* (Nov. 4, 2022), https://oecd.ai/en/dashboards/ai-principles/P11
[4926] OECD AI Policy Observatory, *Ho Chi Minh Smart City,* (Nov. 7, 2022), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26957
[4927] OECD AI Policy Observatory, *Aus4Innovation* (Nov. 12, 2022), https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26843
[4928] *UNESCO Recommendations on Ethics of AI* (2021) https://en.unesco.org/artificial-intelligence/ethics
[4929] Refer to the section of this country report, *Data Protection*.

organizations and individuals," as well as pledging to develop "legal documents on privacy protection, human rights…for AI-related activities."[4930]

Since that time, Vietnam has continued to invest in programs within the country, including international partnerships aimed at improving its technological leadership and promoting the industry both domestically and abroad. However, there is little evidence that the country has made progress in establishing a framework that would protect human rights with respect to this rapidly advancing technology. Perhaps the most salient risk is that AI may be used to further authoritarian rule. As Freedom House reported recently in its 2022 report designating Vietnam as "Not Free", "authorities have increasingly cracked down on citizens' use of social media and the internet to voice dissent and share uncensored information."[4931] The Asia Society Policy Institute notes, Vietnam's commitment to applying AI to "'proactively prevent crimes' begs further discussion about the implications of surveillance technologies, algorithmic processes, and quality of datasets for predictive policing purposes."[4932] Freedom House reports that Vietnam already "engages in surveillance of private online activity" and that "authorities continue to attack and imprison those that criticize the state."[4933] In these circumstances, it remains to be seen which concrete steps Vietnam will take to implement the UNESCO Recommendation on the Ethics of AI.

[4930] Viet Nam Government Portal, *National Strategy On R&D and Application of Artificial Intelligence,* (Apr. 10, 2021), https://en.baochinhphu.vn/national-strategy-on-rd-and-application-of-artificial-intelligence-11140663.htm

[4931] House Freedom, *Freedom in the World 2022: the global expansion of authoritarian rule (2022)*, (Nov. 10, 2022), https://freedomhouse.org/country/vietnam/freedom-world/2022

[4932] Elina Noor and Mark Bryan Manantan, *Raising Standards: Data and Artificial Intelligence in Southeast Asia* (July 2022), https://asiasociety.org/sites/default/files/inline-files/ASPI_RaisingStandards_report_fin_web_0.pdf

[4933] House Freedom, *Freedom in the World 2022: the global expansion of authoritarian rule (2022)*, (Nov. 10, 2022), https://freedomhouse.org/country/vietnam/freedom-world/2022

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COUNTRY EVALUATIONS

Evaluation Grid

Country	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Score	Tier
Argentina	Y	P	Y	Y	P	P	Y	P	P	Y	Y	Y	9.5	Tier 2
Australia	Y	P	Y	Y	Y	Y	Y	P	P	Y	N	P	9.0	Tier 2
Austria	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	N	N	9.5	Tier 2
Azerbaijan	N	N	Y	N	N	N	N	N	N	Y	N	N	2.0	Tier 5
Bahrain	N	N	N	N	P	P	P	P	N	Y	N	N	3.0	Tier 5
Bangladesh	N	N	Y	P	P	P	N	Y	N	Y	N	N	4.5	Tier 5
Belgium	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	N	P	10.0	Tier 2
Brazil	Y	P	Y	Y	P	Y	Y	P	P	Y	Y	N	9.0	Tier 2
Canada	Y	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	Y	11.5	Tier 1
Chile	Y	P	Y	Y	P	Y	P	Y	N	Y	Y	N	8.5	Tier 3
China	Y	P	Y	N	P	P	P	P	Y	Y	N	N	6.5	Tier 3
Colombia	Y	P	Y	Y	Y	Y	Y	Y	P	Y	Y	P	10.5	Tier 1
Costa Rica	Y	P	Y	Y	P	P	Y	P	P	Y	Y	N	8.5	Tier 3
Czechia	Y	P	Y	Y	P	P	Y	P	P	Y	P	N	8.0	Tier 3
Denmark	Y	P	Y	Y	Y	Y	Y	Y	P	Y	N	N	9.0	Tier 2
Dominican Republic	N	P	Y	P	P	P	P	N	N	Y	P	N	5.0	Tier 4
Egypt	N	P	Y	N	N	Y	N	P	P	Y	Y	N	5.5	Tier 4
Estonia	Y	P	Y	Y	Y	Y	Y	P	Y	Y	N	N	9.0	Tier 2
Finland	Y	P	Y	Y	P	Y	Y	P	Y	Y	N	N	8.5	Tier 3
France	Y	Y	Y	Y	P	P	Y	P	Y	Y	N	P	9.0	Tier 2
Germany	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	N	P	10.0	Tier 2
Ghana	N	N	Y	Y	P	N	Y	N	N	Y	P	N	5.0	Tier 4

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Country	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Score	Tier
Hong Kong	N	P	Y	P	P	Y	P	Y	P	Y	N	P	7.0	Tier 3
Hungary	Y	P	Y	P	P	Y	P	Y	Y	Y	N	P	8.5	Tier 3
India	Y	P	Y	P	Y	Y	N	Y	N	Y	N	N	7.0	Tier 3
Indonesia	Y	P	Y	P	Y	Y	N	Y	Y	Y	N	N	8.0	Tier 3
Iran	N	N	Y	N	N	P	N	P	N	Y	N	N	3.0	Tier 5
Ireland	Y	P	Y	Y	Y	Y	P	P	P	Y	P	P	9.0	Tier 2
Israel	Y	P	Y	Y	Y	Y	Y	P	Y	N	N	N	8.0	Tier 3
Italy	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	N	P	10.0	Tier 2
Jamaica	N	P	Y	Y	N	P	Y	P	Y	Y	P	N	7.0	Tier 3
Japan	Y	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	Y	11.5	Tier 1
Kazakhstan	N	N	Y	N	N	P	N	P	N	Y	N	N	3.0	Tier 5
Kenya	N	P	Y	P	Y	Y	Y	P	Y	Y	Y	N	8.5	Tier 3
Kuwait	N	N	Y	P	N	N	N	N	N	Y	N	N	2.5	Tier 5
Lithuania	Y	P	Y	Y	P	P	Y	Y	Y	Y	P	N	9.0	Tier 2
Luxembourg	Y	P	Y	Y	Y	Y	Y	P	P	Y	N	N	8.5	Tier 3
Malaysia	N	N	Y	P	P	Y	P	Y	P	Y	N	N	6.0	Tier 4
Malta	P	P	Y	Y	Y	P	Y	P	Y	Y	N	N	8.0	Tier 3
Mauritius	N	P	Y	Y	P	P	Y	P	Y	Y	N	N	7.0	Tier 3
Mexico	Y	P	Y	P	N	N	Y	P	Y	Y	Y	P	8.0	Tier 3
Myanmar	N	N	Y	N	N	N	N	N	N	Y	N	N	2.0	Tier 5
Netherlands	Y	P	Y	Y	N	Y	P	Y	Y	Y	Y	P	9.5	Tier 2
New Zealand	Y	P	Y	Y	P	Y	Y	P	P	Y	N	P	8.5	Tier 3
Nigeria	N	P	Y	P	N	N	Y	N	Y	Y	P	N	5.5	Tier 4
Norway	Y	P	Y	Y	P	Y	Y	Y	P	Y	N	P	9.0	Tier 2
Pakistan	N	N	Y	P	P	Y	N	P	N	Y	N	N	4.5	Tier 5

Artificial Intelligence and Democratic Values 2022
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Country	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Score	Tier
Peru	Y	P	Y	P	Y	Y	Y	N	N	Y	N	N	7.0	Tier 3
Philippines	N	P	Y	P	P	P	Y	P	Y	Y	N	Y	7.5	Tier 3
Poland	Y	P	Y	Y	Y	Y	P	P	Y	Y	N	P	9.0	Tier 2
Portugal	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	N	P	10.0	Tier 2
Puerto Rico	Y	P	Y	Y	N	N	N	N	N	N	N	N	3.5	Tier 5
Qatar	N	N	Y	N	N	Y	P	P	P	Y	N	N	4.5	Tier 5
South Korea	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P	11.5	Tier 1
Russia	Y	P	Y	N	N	N	P	P	Y	Y	N	N	5.5	Tier 4
Rwanda	N	P	Y	N	P	P	P	P	Y	Y	P	N	6.0	Tier 4
Saudi Arabia	Y	P	N	N	Y	Y	P	P	Y	Y	Y	N	7.5	Tier 3
Singapore	N	P	Y	P	Y	Y	P	Y	N	Y	N	N	6.5	Tier 3
Slovenia	Y	P	Y	Y	Y	Y	Y	Y	P	Y	P	N	9.5	Tier 2
South Africa	N	P	Y	Y	Y	P	Y	N	Y	Y	Y	N	8.0	Tier 3
Spain	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	N	N	9.5	Tier 2
Sweden	Y	P	Y	Y	P	Y	Y	Y	P	Y	N	N	8.5	Tier 3
Switzerland	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	N	P	10.0	Tier 2
Taiwan	N	P	Y	Y	Y	P	P	Y	N	N	N	N	5.5	Tier 4
Thailand	N	P	Y	N	N	P	P	P	N	Y	N	N	4.0	Tier 5
Trinidad and Tobago	N	P	Y	Y	P	P	N	N	N	Y	N	N	4.5	Tier 5
Tunisia	N	P	Y	P	P	N	Y	P	N	Y	N	N	5.0	Tier 4
Turkey	Y	P	Y	N	P	Y	Y	Y	P	Y	N	N	7.5	Tier 3
Uganda	N	P	Y	N	P	P	P	P	N	Y	P	N	5.0	Tier 4
United Arab Emirates	N	P	Y	N	P	Y	P	Y	P	Y	P	N	6.5	Tier 3
United Kingdom	Y	P	Y	Y	P	Y	Y	Y	Y	Y	N	Y	10.0	Tier 2

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Country	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Score	Tier
United States of America	Y	P	Y	Y	P	Y	P	Y	P	N	N	N	7.0	Tier 3
Uruguay	N	P	Y	Y	Y	P	Y	P	Y	Y	Y	P	9.0	Tier 2
Venezuela	N	N	Y	N	N	N	N	N	N	Y	N	N	2.0	Tier 5
Vietnam	N	P	Y	N	N	Y	N	N	N	Y	N	N	3.5	Tier 5

Country Rankings (2022)

Tier I

    Canada (11.5)
    Japan (11.5)
    South Korea (11.5)
    Colombia (10.5)

Tier II

    Belgium (10.0)
    Germany (10.0)
    Italy (10.0)
    Portugal (10.0)
    Switzerland (10.0)
    United Kingdom (10.0)
    Argentina (9.5)
    Austria (9.5)
    Netherlands (9.5)
    Slovenia (9.5)
    Spain (9.5)
    Australia (9.0)
    Brazil (9.0)
    Denmark (9.0)
    Estonia (9.0)
    France (9.0)
    Ireland (9.0)
    Lithuania (9.0)
    Norway (9.0)
    Poland (9.0)
    Uruguay (9.0)

Tier III

    Chile (8.5)
    Costa Rica (8.5)
    Finland (8.5)
    Hungary (8.5)
    Kenya (8.5)
    Luxembourg (8.5)
    New Zealand (8.5)
    Sweden (8.5)
    Czechia (8.0)
    Indonesia (8.0)

Israel (8.0)
Malta (8.0)
Mexico (8.0)
South Africa (8.0)
Philippines (7.5)
Saudi Arabia (7.5)
Turkey (7.5)
Hong Kong (7.0)
India (7.0)
Jamaica (7.0)
Mauritius (7.0)
Peru (7.0)
United States of America (7.0)

Tier IV

China (6.5)
Singapore (6.5)
United Arab Emirates (6.5)
Malaysia (6.0)
Rwanda (6.0)
Egypt (5.5)
Nigeria (5.5)
Russia (5.5)
Taiwan (5.5)
Dominican Republic (5.0)
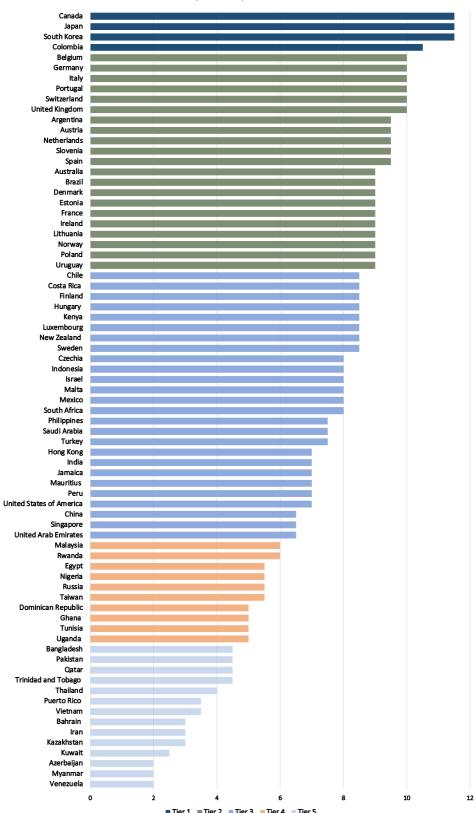Tunisia (5.0)
Uganda (5.0)

Tier V

Bangladesh (4.5)
Pakistan (4.5)
Qatar (4.5)
Trinidad and Tobago (4.5)
Ghana (4.0)
Thailand (4.0)
Puerto Rico (3.5)
Vietnam (3.5)
Bahrain (3.0)
Iran (3.0)
Kazakhstan (3.0)
Kuwait (2.5)

Azerbaijan (2.0)
Myanmar (2.0)
Venezuela (2.0)

Country Distribution by Tier

TIER I (High)	TIER 2	TIER 3 (Middle)	TIER 4	TIER 5 (Low)
Canada Japan South Korea Colombia	Belgium Germany Italy Portugal Switzerland United Kingdom Argentina Austria Netherlands Slovenia Spain Australia Brazil Denmark Estonia France Ireland Lithuania Norway Poland Uruguay	Chile Costa Rica Finland Hungary Kenya Luxembourg New Zealand Sweden Czechia Indonesia Israel Malta Mexico South Africa Philippines Saudi Arabia Turkey Hong Kong India Jamaica Mauritius Peru United States of America	China Singapore United Arab Emirates Malaysia Rwanda Egypt Nigeria Russia Taiwan Dominican Republic Tunisia Uganda	Bangladesh Pakistan Qatar Trinidad and Tobago Ghana Thailand Puerto Rico Vietnam Bahrain Iran Kazakhstan Kuwait Azerbaijan Myanmar Venezuela

Artificial Intelligence and Democratic Values 2022
Center for AI and Digital Policy

AIDV Index
by country and tier

Tier 1 ■ Tier 2 ■ Tier 3 ■ Tier 4 ■ Tier 5

Metrics

Q1. Has the country endorsed the OECD AI Principles?
Q2. Is the country implementing the OECD AI Principles?
Q3. Has the country endorsed the Universal Declaration of Human Rights?
Q4. Is the country implementing the Universal Declaration for Human Rights?
Q5. Has the country established a process for meaningful public participation in the development of a national AI Policy?
Q6. Are materials about the country's AI policies and practices readily available to the public?
Q7. Does the country have an independent (agency/mechanism) for AI oversight?
Q8. Do the following goals appear in the national AI policy: "Fairness," "Accountability," "Transparency," ("Rule of Law,") ("Fundamental Rights")? [implementation? = legal force? = enforcement?]
Q9. Has the country by law established a right to Algorithmic Transparency? [GDPR? / COE+?]
Q10. Has the country endorsed the UNESCO Recommendation on AI Ethics?
Q11. Is the country implementing the UNESCO Recommendation on the Ethics of AI?
Q12. Has the country's Data Protection Agency sponsored the 2018 GPA Resolution on AI and Ethics, the 2020 GPA Resolution on AI and Accountability and the 2022 GPA Resolution on Facial Recognition?

Response Codes

"Y" – Yes
"N" – No
"P" – Partly

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	Tier	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	2022	2021	2020	Var. 2022-2021
Canada	Tier 1													11,5	11,0	9,5	+0,5
Japan	Tier 1													11,5	10,0	8,5	+1,5
South Korea	Tier 1													11,5	11,0	8,5	+0,5
Colombia	Tier 1													10,5	8,5		+2
Belgium	Tier 2													10,0	9,0	7,5	+1
Germany	Tier 2													10,0	11,0	10,5	-1,0
Italy	Tier 2													10,0	11,0	9	-1,0
Portugal	Tier 2													10,0			
Switzerland	Tier 2													10,0	9,5	8,5	+0,5
United Kingdom	Tier 2													10,0	9,5	8,5	+0,5
Argentina	Tier 2													9,5	9,0		+0,5
Austria	Tier 2													9,5	10,0		-0,5
Netherlands	Tier 2													9,5	8,5	7,5	+1
Slovenia	Tier 2													9,5	7,0		+2,5
Spain	Tier 2													9,5	10,0	9,0	-0,5
Australia	Tier 2													9,0	9,0	8,5	0,0
Brazil	Tier 2													9,0	7,5	6,5	+1,5
Denmark	Tier 2													9,0	9,5		-0,5
Estonia	Tier 2													9,0	8,5	7,5	+0,5
France	Tier 2													9,0	10,0	9,0	-1,0
Ireland	Tier 2													9,0	9,0		0,0
Lithuania	Tier 2													9,0			
Norway	Tier 2													9,0	10,0		-1,0
Poland	Tier 2													9,0	8,0	7	+1
Uruguay	Tier 2													9,0	7,0		+2
Chile	Tier 3													8,5			
Costa Rica	Tier 3													8,5			
Finland	Tier 3													8,5	7,5		+1
Hungary	Tier 3													8,5			
Kenya	Tier 3													8,5	5,0		+3,5
Luxembourg	Tier 3													8,5			
New Zealand	Tier 3													8,5			
Sweden	Tier 3													8,5	8,5	7,5	0,0
Czechia	Tier 3													8,0			
Indonesia	Tier 3													8,0	6,5	5,5	+1,5
Israel	Tier 3													8,0	6,0	6,0	+2
Malta	Tier 3													8,0			
Mexico	Tier 3													8,0	6,0	5	+2
South Africa	Tier 3													8,0	7,5		+0,5
Philippines	Tier 3													7,5	7,5		0,0
Saudi Arabia	Tier 3													7,5	5,5		+2
Turkey	Tier 3													7,5	8,0	5,0	-0,5
Hong Kong	Tier 3													7,0	8,5		-1,5
India	Tier 3													7,0	6,5	6,5	+0,5
Jamaica	Tier 3													7,0			
Mauritius	Tier 3													7,0			
Peru	Tier 3													7,0			
United States of America	Tier 3													7,0	7,5	7,5	-0,5
China	Tier 3													6,5	6,0	5,0	+0,5
Singapore	Tier 3													6,5	7,0	6,0	-0,5
United Arab Emirates	Tier 3													6,5	7,0		-0,5
Malaysia	Tier 4													6,0	4,5		+1,5
Rwanda	Tier 4													6,0	3,5	3,5	+2,5
Egypt	Tier 4													5,5	5,0		+0,5
Nigeria	Tier 4													5,5	4,0		+1,5
Russia	Tier 4													5,5	6,5	5,0	-1,0
Taiwan	Tier 4													5,5	5,0	5,5	+0,5
Dominican Republic	Tier 4													5,0	5,5		-0,5
Ghana	Tier 4													5,0			
Tunisia	Tier 4													5,0			
Uganda	Tier 4													5,0			
Bangladesh	Tier 5													4,5	4,5		0,0
Pakistan	Tier 5													4,5			
Qatar	Tier 5													4,5			
Trinidad and Tobago	Tier 5													4,5			
Thailand	Tier 5													4,0	4,0	3,5	0,0
Puerto Rico	Tier 5													3,5			
Vietnam	Tier 5													3,5			
Bahrain	Tier 5													3,0			
Iran	Tier 5													3,0	3,0		0,0
Kazakhstan	Tier 5													3,0	3,0	2,5	0,0
Kuwait	Tier 5													2,5			
Azerbaijan	Tier 5													2,0			
Myanmar	Tier 5													2,0			
Venezuela	Tier 5													2,0			

METHODOLOGY

Scope

We assessed the AI policies and practices of the top 40 countries by GDP. We also looked at 35 other countries we considered "high-impact" and allowing for the AIDV Index to be representative of both the diversity and commonalities among countries worldwide in terms of AI policies and issues encountered and best practices. Our aim is to examine those countries likely to have the greatest policy impact in the AI field. We considered also influential intergovernmental organizations, such as the institutions of the European Union, the Council of Europe, the OECD, UNESCO and G20, but we did not attempt to evaluate their AI policies.

Time Period

The research for the 2020 edition of the report was undertaken in late 2020 for publication in mid-December 2020. For the 2021 edition of the report, published in mid-February 2022, we continued to gather information throughout 2021 and into early 2022. For this year edition, information was gathered throughout 2022 and into early 2023.

Factors

We identified 12 factors to assess national AI policies and practices. The factors reflect well known frameworks for AI policy (the OECD/G20 AI Principles, UNESCO Recommendation on the Ethics of AI), human rights (the Universal Declaration for Human Rights), and democratic decision-making (transparency, public participation, and access to policy documents). We also highlighted key themes for AI policy, including algorithmic transparency and accountability.

On certain factors, we deferred to well established legal frameworks and well-known international organizations. For example, countries within the European Union are subject to the General Data Protection Regulation and the Data Protection Law Enforcement Directive which provide certain rights to those who are subject to automated decision-making, including access to the underlying logic of an algorithm. The Council of Europe Modernized Convention 108 provides similar legal rights regarding AI. On general human rights assessments, we deferred to the reports of Freedom House, Human Rights Watch, and Amnesty International. We also recognized those countries that endorsed the resolution on AI and Ethics, the resolution on AI and Accountability and the resolution on facial

recognition adopted by the Global Privacy Assembly, the global association of leading privacy experts and officials.

On the issue of implementation, we recognize that it is difficult to assess empirically progress toward AI policy goals, particularly when the underlying objective is not measured in quantitative terms, such as would be the case for research investment, papers published, or patents obtained. Nonetheless we believe this must be a key component of the evaluation. We turned first to the OECD, which has begun a process to track implementation of the OECD AI Principles. The OECD published substantial reports in 2020 and 2021 on implementation of the OECD AI Principles.[4934] The OECD has also encouraged member states to provide overviews on national AI strategies to the OECD AI Group of Experts, though at present these reports are not generally available to the public.

We looked next at national developments, both favorable and controversial, concerning the implementation of AI policy. We consulted official sources but also reviewed independent sources, such as news sources, agencies, and thinks thanks not directly aligned with national governments, for these assessments.

Finally, because AI policy is in the early days, there is far more information about what governments intend to do than what they have done. We encourage governments to establish independent agencies with annual public reporting requirements to provide information about progress toward national goals and compliances with international policy frameworks. Such reports could provide the basis for future comparative evaluations.

The Metrics

Q1. Has the country endorsed the OECD/G20 AI Principles?

The OECD/G20 AI Principles are the first global framework for AI policy. Endorsement of these principles provides a baseline to determine a country's compliance with international AI policy norms. Countries that have endorsed the OECD/G20 AI Principles fall into three categories: (1) OECD Member Countries, (2) Non-member OECD Countries that endorsed the OECD AI Principles, and (3) G-20 Member countries that subsequently endorsed the G20 AI Principles which follow closely the original OECD AI Principles.[4935]

[4934] OECD, *State of Implementation of the OECD AI Principles* (June 18, 2021), https://www.oecd.org/digital/state-of-implementation-of-the-oecd-ai-principles-1cd40c44-en.htm

[4935] The G20 AI Principles directly restate the value-based principles in Part I of the OECD AI Principles

Determinations in this category are essentially binary: a country has either endorsed the OECD/G20 AI Principles or it has not.

Q2. Is the country implementing the OECD AI Principles?

Endorsement alone of the AI Principles is not sufficient to determine a country's AI practices. The OECD itself has begun a process to track implementation of the AI Principles, but the reporting to date is mostly anecdotal and inconclusive. We begin our analysis of implementation with the OECD reporting and then look to other sources, including government documents, news articles and NGO reports, to assess implementation.

Determinations in this category are more nuanced: some countries have called attention to their efforts to implement the OECD/G20 AI principles. Others have done so in practice without explicit references to the AI Principles. We have made reasonable efforts to identify national projects that implement the OECD/G20 AI Principles, based on reporting from the OECD, but information is often difficult to find. In some instances, we were able to acknowledge partial implementation (P). In 2020, we concluded that no country has fully implemented the OECD/G20 AI Principles and therefore no country received a Y determination. In 2021, we have chosen to recognize the leading role of four countries in the development and implementation of the OECD AI Principles – Canada, France, Korea, and Japan.

Q3. Has the country endorsed the Universal Declaration of Human Rights?

In the human rights field, the Universal Declaration of Human Rights is the most well-known and widely adopted legal framework for the protection of fundamental rights. Although the UDHR preceded the rise of Artificial Intelligence, we anticipated that many of the significant policy debates ahead will be grounded in principles set out in the Universal Declaration. For this reason, we propose endorsement of the UDHR as a second baseline to assess country AI policies and practices.

Determinations in this category are essentially binary: a country has either endorsed the UDHR or it has not. The one notable exception is Saudi Arabia which did not endorse the UDHR but is a member of the United Nations and has recognized, according to human rights organizations, certain human rights obligations.

Q4. Is the country implementing the Universal Declaration for Human Rights?

Like the question regarding implementation of the OECD AI Principles, measuring implementation of the UDHR is not a simple task. Several well-established international organizations, such as Freedom

House and Human Rights Watch, have developed formal metrics to evaluate compliance with human rights norms. We defer to these organizations for the evaluation of general human rights practices, while also noting that several of these factors may be useful in future evaluation of AI practices.

Determinations in this category typically fell into two categories: Y, a country widely recognized for its defense of human rights as generally understood by reference to the UDHR, and P, a country in partial compliance with human rights obligations. In 2021, we made this determination more precise. Countries that Freedom House designated as "Free" received Y. A country designated "Partly Free" was designated "P" and countries designated "Note Free" were designated "N."

Q5. Has the country established a process for meaningful public participation in the development of a national AI Policy?

Almost every country in our report has set out a national AI strategy or action plan. We have attempted to fairly summarize and present these initiatives. But we are also interested in the development of these policies. Was there an opportunity for public participation? Was there a formal consultation process? Do the national AI policies reflect the views of those who may be impacted by the deployment of AI techniques? And is there an ongoing mechanism for public participation as national AI policies evolve?

Determinations in this category were based on our ability to identify opportunities for meaningful public participation. The distinction between a Y and P in this category reflected the quality of the opportunity for public participation.

Q6. Are materials about the country's AI policies and practices readily available to the public?

Effective public participation requires public access to relevant documents. Has the national government taken steps to ensure that documents concerning AI policy are readily available, complete, and accurate? Are the materials available on the website of a public agency or are they maintained by a private company? Are there opportunities for future comment?

The determinations in this category often aligned with the determinations about public participation. We respect the practice of countries to publish reports, and to seek public reports, in the national language. We note however that the absence of an English translation may make independent evaluation of a country's AI policies and practices more difficult. We discuss the issue of Language in more detail below.

Q7. Does the country have an independent (agency/mechanism) for AI oversight?

All governments understandably seek to advance national AI priorities. And most governments have directed a science or industry ministry to lead national efforts. But the deployment of AI techniques also raises concerns about accountability, privacy and data protection, fairness, transparency, and equity. For these reasons, we look to determine whether countries have independent agencies, such as a data protection agency, a human rights commission, or an AI ethics commission, to protect fundamental rights.

Determinations in this category were based on the actual establishment of mechanisms to oversee or guide AI practices. Again, the difference between a Y and a P determination reflected the quality and breadth of the oversight mechanisms.

Q8. Do the following goals appear in the national AI policy: "Fairness," "Accountability," "Transparency," "Rule of Law," "Fundamental Rights"?

There are many themes in the AI policy realm. We identified these five goals as the most significant. They appear frequently in AI policy frameworks and they are grounded in law. We recognize that countries that have endorsed the OECD/G20 AI Principles have, by implication, endorsed these goals. But this question asks whether countries have explicitly endorsed these goals in their national AI strategies.

Determinations in this category attempt to evaluate the extent to which a country has prioritized these AI policy goals. Full endorsement received a Y, partial endorsement a P.

Q9. Has the country by law established a right to Algorithmic Transparency?

One of the most significant AI policy issues today is Algorithmic Transparency. We take the position that individuals should have the right to access the logic, the factors, and the data that contributed to a decision concerning them. This right is currently established in two legal frameworks: The General Data Projection Regulation of the European Union (Article 22) and the Council of Europe Convention 108+, the modernized Privacy Convention (Article 9). Countries that are within the EU and/or signatories to COE 108+ have therefore established this right. We have also considered whether countries, by national law, have established the right to algorithmic transparency.

For determinations in this category, we assigned a Y to those countries that are subject to the GDPR and/or the Council of Europe Convention. In a subsequent review, we will investigate whether countries

have *implemented* a right to algorithmic transparency. This will provide a more detailed assessment of this key metric.

Q10. Has the country endorsed the UNESCO Recommendation on AI Ethics?

In November 2021, UNESCO member states adopted the first ever global agreement on the Ethics of Artificial Intelligence. We consider this a watershed moment in the development of AI policies and have incorporated country support for the UNECO framework as a positive indicator for national AI policies and practices. Determinations in this category are similar to those regarding endorsement of the OECD AI Principles and the UN Declaration of Human Rights, and not an indication of implementation of the framework. We note that that Hong Kong, Israel, Taiwan, and the United States were not among the signatories for reasons unrelated to their views on AI policies and practices.

[Note on Methodology: in AIDV-2020, we asked in Q11 whether countries supported the Social Contract for AI and in AIDV-2021, we asked in Q10 whether countries had endorsed the Universal Guidelines on AI. We described both as "aspirational goals for the Age of AI that go beyond the OECD/G20 AI Principles." In our assessment, country support for the UNESCO Recommendation on AI Ethics constitutes a similar metric that is also more easily determined, at least with regard to initial support. Nonetheless, this constitutes a change in the methodology originally established in order to adapt to the rapid evolution of AI policy which we fully acknowledge.]

Q11: Is the country implementing the UNESCO Recommendation on the Ethics of AI?

Endorsement alone of the UNESCO Recommendation is not sufficient to determine a country's AI practices. UNESCO itself has begun a process to track implementation of the Recommendation, but the reporting to date is not yet available and is in its infancy. We begin our analysis of implementation with UNESCO documents pertaining to planned partnerships and the 2022 UNESCO AI Needs Assessment Survey in Africa.[4936] However, we deepened the analysis by searching for statements made by countries pledging their commitment to implement the UNESCO Recommendation. We tracked preliminary announcements regarding

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[4936] UNESCO, *UNESCO Launches the findings of the Artificial Intelligence Needs Assessment Survey in Africa* (Sept. 28, 2022), https://www.unesco.org/en/articles/unesco-launches-findings-artificial-intelligence-needs-assessment-survey-africa?TSPD_101_R0=080713870fab2000b997f8502bad446dd247c280241aa27fd78227 94303d84c6660f286b5a18426908ddf3745b1430007a6bae5f69251a9f6e076c992f212add 23ade97d15b9e6e1e4b6982ed494862afe0aec119ec0669b25f164dab4a02b42

implementation and monitoring mechanisms which shall be put into place. We then look to other sources, including regional organizations documents, news articles and NGO reports, to assess implementation.

Determinations in this category show that some countries have called attention to their efforts to implement the UNESCO Recommendation and help other countries to implement it. We also started to identify other countries which have done so in practice without explicit references to the Recommendation. We will proceed in the future with identifying national projects that implement the UNESCO Recommendation, based on future reporting from the UNESCO, but information is often difficult to find at this stage and not made publicly available yet. In some instances, we were able to acknowledge partial implementation (P). We have also chosen to recognize the leading role of a few countries in the development and implementation of the UNESCO Recommendation (Y).

Q12: Has the country's Data Protection Agency endorsed the 2018 GPA Resolution on AI and Ethics, the 2020 GPA Resolution on AI and Accountability and the 2022 GPA Resolution on AI and Facial Recognition?

In the fall of 2018, the Global Privacy Assembly (then known as the International Conference of Data Protection and Privacy Commissioners), adopted a foundational Declaration on Ethics and Data Protection in Artificial Intelligence.[4937] The 2018 Declaration emphasized fairness, vigilance, transparency and intelligibility, and measures to reduce unlawful bias and discrimination. In 2020, the GPA adopted a resolution on AI and Accountability.[4938] That resolution sets out a dozen steps for AI accountability, including the preparation of human rights impact assessments. This Declaration was followed by two other key AI-related resolutions: the 2020 resolution on AI and Accountability and the 2022 resolution on AI and Facial Recognition.

We believe that support for these resolutions is an important indicator of a country's commitment to AI and data protection and effective implementation of AI policy goals. We checked to see which countries

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[4937] ICPDPC, *Declaration on Ethics and Data Protection in Artificial Intelligence* (including list of authors and co-sponsors) (Oct. 23, 2018), http://globalprivacyassembly.org/wp-content/uploads/2018/10/20180922_ICDPPC-40th_AI-Declaration_ADOPTED.pdf

[4938] Global Privacy Assembly, *Adopted Resolution on Accountability in the Development and Use of Artificial Intelligence* (including list of main sponsors and co-sponsors) (Oct. 2020), https://globalprivacyassembly.org/wp-content/uploads/2020/11/GPA-Resolution-on-Accountability-in-the-Development-and-Use-of-AI-EN.pdf

explicitly sponsored the resolutions. We will also consider other notable initiatives in future global surveys of AI policies and practices.

For determinations in this category, we assigned a Y to countries that sponsored the three resolutions, an N to countries that sponsored none of them (or are not represented at the GPA), and P to the countries that sponsored only one or two of these resolutions.

As an aside to the Global Privacy Assembly, we would recommend new mechanisms that would allow members to endorse resolutions concerning AI in subsequent years. We will update country ratings accordingly.

Hong Kong

Hong Kong constitutes a special case in our review of national AI policies and practices. Although Hong Kong, an Administrative Region of the People's Republic of China (HKSAR) is not a country, it ranks number 37 in the world for GDP, placing it within the top 40 countries we reviewed for the 2021 index. Hong Kong also has an active data protection agency that has contributed to the formulation of the AI policies endorsed by the Global Privacy Assembly. As Hong Kong is not a country it could not enter into international agreements, such as the OECD AI Principles. So, we treated commitments made by China to these polices as if they were made by Hong Kong. At the same time, we recognized variances in AI practices in the Region as well as the different ratings for compliance with the human rights norms, as determined by Freedom House.

Exemplars

In developing the methodology, we also created a list of exemplar countries for several metrics. For example, on Question 5, concerning meaningful public participation, we were struck by the high level of public engagement in Switzerland. On Question 6, concerning the availability of a countries AI policies and practices, Germany's *Plattform Lernende Systeme* offers a map that shows, by region, AI developments across the country. And the multiple agencies in France, the CNIL and the Defender of Rights, provide a very good example of independent oversight for AI, highlighted by Question 7.

Scoring

We assigned a numeric value of 1.0 to each "Y" answer, 0.5 to each "P" answer, and 0.0 to each "N" or "U" answer. (We may revise scores upward for U answers upon receipt of evidence regarding progress toward the specific metric). We then tallied the numbers, weighing each metric

equally, and produced a total score. A top score would be 12, a bottom score is 0. On the basis of total scores, we grouped countries by color gradation and then into tiers. The groupings reflect a normalized distribution with Yellow or Tier III as the median.

Search Strategy

To locate relevant policy materials, we conducted extensive online searches. Key search terms, often used in combination with "AI" or "Artificial Intelligence," included: "Accountability," "Algorithmic Transparency," "Data Protection," "Digital," "Ethical," "Ethics," "Fairness," "Governance," "Law," "Legislation," "Policy," "Poll," "Privacy," "Regulation, "Strategy," and "Technology."

Descriptive Summary

Each country report includes a descriptive summary labelled "Evaluation." The evaluation does not precisely track the metrics. It is intended to highlight the key findings in the country report and provide a general overview for the reader.

Language

Our research team has rapidly expanded and diversified, with language expertise in various languages such as English, French, German, Italian, Japanese, Korean, Mandarin, Russian, Spanish, Turkish, Uyghur, or Vietnamese. However, we preferred English publications, as they would be considered authoritative original sources or authoritative translations for the international community from the original sources. In some instances, we translated text from non-English to English with a Machine Translation ("[MT]") tool, such as DeepL Translate ("[DT]") or Google Translate ("[GT]"). We noted such instances in the citations.

Citation Format

We adopted a simplified citation format for the *AI and Democratic Values Index 2022.* Each citation includes the author and title of the publication. Where there are multiple authors, we provided the name of the institution if available but not the names of the authors. We include also a date where there was a final publication date. By way of contrast, cites to websites do not include dates. And we included URLs, which we made transparent so that the reader could quickly assess the source. In a paragraph where there may be multiple references to the same source, we cited to the

source in the first instance, but not in subsequent instances unless there was an intervening reference to a different source.

Gender Balance and Diversity

In the development of the ***AI and Democratic Values Index,*** the selection of team members and reviewers, we strived to maintain gender balance. We have also tried to promote diversity and regional representation.

Bias

We did not explicitly examine the issue of bias in AI, although this is a widely discussed topic and the focus of extensive research, including the bias of data sets. Our view is that the most effective policy response to the problem of bias is the *explicit recognition of Fairness, Accuracy, and Transparency* in AI policy and the implementation of these principles in AI practices. Several questions in the ***AI and Democratic Values Index*** (Q1, Q2, Q7, Q9, Q10, Q11, Q12) make these factors key metrics for the evaluation of a nation's AI policies.

We also recognize the inherent bias in the construction of all surveys, including in the survey focus, the framing of questions, and the research methodology.[4939]

Private Sector Practices

We did not attempt to review or evaluate the practices of private firms or organizations. The ***AI and Democratic Values Index*** attempts only to evaluate the policies and practices of national governments. We do believe that private firms must act in compliance with law and through democratic institutions, and that the evaluation of government policies must ultimately be the measure of private sector practices.[4940]

[4939] Max Weber, *Objectivity of Social Science and Science Policy* (1904).
[4940] Further discussion of the methodology underlying the *AI Index* is presented in Marc Rotenberg, *Time to Assess National AI Policies,* Blog@CACM (Nov. 24, 2020), https://cacm.acm.org/blogs/blog-cacm/248921-time-to-assess-national-ai-policies/fulltext

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GLOSSARY

ACM	Association for Computing Machinery
AEPD	Agencia Española de Protección de Datos (ESP)
AI	Artificial Intelligence
AIHLEG	AI High Level Expert Group (EU)
AIDP	Artificial Intelligence Development Plan (CHN)
AIIA	Artificial Intelligence Industry Alliance (CHN)
AIIS	Artificial Intelligence and Intelligent Systems Laboratory (ITA)
AIRA	African Internet Rights Alliance
AIRC	AI Research Center (CHN)
AJL	Algorithmic Justice League
ANPD	Autoridade Nacional de Proteção de Dados (BRA)
AISCI	AI Social Contract Index
AIWS	AI World Society
APPI	Act on the Protection of Personal Information (JAP)
BAAI	Beijing Academy of Artificial Intelligence (CHN)
BEUC	European Consumer Organization
BGF	Boston Global Forum
BRI	Belt and Road Initiative (CHN)
C4AI	Artificial Intelligence Center (BRA)
CAHAI	Ad Hoc Committee on Artificial Intelligence (COE)
CAIDP	Center for AI and Digital Policy
CAS	Criminaliteits Anticipatie Systeem (NLD)
CCNE	National Consultative Committee on Bioethics (FRA)
CDEI	Center for Data Ethics and Innovation (GBR)
CEPEJ	European Commission for the Efficiency of Justice (COE)
CIFAR	Canadian Institute for Advanced Research (CAN)
CINI	Consortium for Informatics (ITA)
CJEU	Court of Justice of the European Union (EU
CLAIRE	Confederation of Artificial Intelligence Laboratories in Europe
CNAM	Council of the Caisse nationale d'assurance maladie (FRA)
CNIL	Commission Nationale de l'Informatique et des Libertés (FRA)
CNJ	Conselho Nacional de Justiça (BRA)
COE	Council of Europe
COMEST	Commission on the Ethics of Scientific Knowledge and Technology
CPSR	Computer Professionals for Social Responsibility
CSIRO	National Science Agency (AUS)

DFFT	Data Free Flows with Trust
DIGG	Agency for Data Administration (SWE)
DPIA	Data Protection Impact Assessments
DPA	Data Protection Agency
DT	DeepL Translate
DTO	Digital Transformation Office (TUR)
EAD	Ethically Aligned Designed
EDPS	European Data Protection Supervisor (EU)
EDRi	European Digital Rights Initiative
FDPIC	Federal Data Protection and Information Commissioner (CHE)
FRA	Fundamental Rights Agency (COE / EU)
FREMP	Working Party on Fundamental Rights, Citizens Rights and Free Movement of Persons (EU)
GDPR	General Data Protection Regulation (EU)
GGE	Group of Government Experts (GGE)
GPA	Global Privacy Assembly
GPAI	Global Partnership on Artificial Intelligence
HDH	Health Data Hub (FRA)
HLEG	High Level Expert Group
IACI	Innovation Center for AI (NLD)
ICCPR	International Convention on Civil and Political Rights
IEEE	Institute of Electrical and Electronics Engineers
IJOP	Integrated Joint Operations Platform (CHN)
IMDA	Infocomm Media Development Authority (SGP)
ICO	Information Commission Office (GBR)
ITU	International Telecommunications Union
JSC	Jakarta Smart City
KIC	Kigali Innovation City (RWA)
KKVK	Data Protection Authority (TUR)
LAWS	Lethal Autonomous Weapon Systems
LIBE	European Parliament Committee on Civil Liberties, Justice and Home Affairs
LGPD	Lei Geral de Proteção de Dados Pessoais (BRA)
MCTIC	Ministry of Science, Technology, Innovations and Communications (BRA)
MDES	Ministry of Digital Economy and Society (THA)
MDI	Michael Dukakis Institute for Leadership and Innovation
MEITY	Ministry of Electronics and Information Technology (IND)
MOST	Ministry of Science and Technology (TWN)
NCAI	National Center for AI (KSA)
NCPO	National Council for Peace and Order (THA)

NDMO	National Data Management Office (KSA)
NHRI	National Human Rights Institute
NIC	National Information Center (KSA)
NIDA	National Identification Agency (RWA)
NIN	National Identity Number (RWA)
NPCDE	National Pilot Committee for Digital Ethics (FRA)
NSCAI	National Security Commission on AI (USA)
NXPO	Office of National Higher Education Science Research and Innovation Policy Council (THA)
OAI	Office of Artificial Intelligence (GBR)
OGP	Open Government Partnership
OHCHR	Office of the High Commissioner for Human Rights
PAI	Policies for AI (OECD)
PDPA	Personal Data Protection Act
PDPC	Personal Data Protection Commission
PIPC	Personal Information Protection Commission (KOR)
PIPEDA	Personal Information Protection and Electronic Documents Act (CAN)
PLA	People's Liberation Army (CHN)
PPC	Personal Information Protection Commission (JAP)
RIPD	Red Iberoamericana de Protección de Datos
SCAAI	Social Contract for the Age of AI
SDAIA	Saudi Data and Artificial Intelligence Authority (KSA)
SDG	Sustainable Development Goals (UN)
SFLC	Software Freedom Law Center (IND)
UDHR	Universal Declaration of Human Rights
UGAI	Universal Guidelines for AI
UNICRI	United Nations Interregional Crime and Justice Research Institute
USRC	Unmanned Systems Research Center (CHN)

REFERENCE DOCUMENTS

OECD AI Principles

Recommendation of the Council on Artificial Intelligence
Adopted May 21, 2019

THE COUNCIL,

HAVING REGARD to Article 5 b) of the Convention on the Organisation for Economic Co-operation and Development of 14 December 1960;

HAVING REGARD to the OECD Guidelines for Multinational Enterprises [OECD/LEGAL/0144]; Recommendation of the Council concerning Guidelines Governing the Protection of Privacy and Transborder Flows of Personal Data [OECD/LEGAL/0188]; Recommendation of the Council concerning Guidelines for Cryptography Policy [OECD/LEGAL/0289]; Recommendation of the Council for Enhanced Access and More Effective Use of Public Sector Information [OECD/LEGAL/0362]; Recommendation of the Council on Digital Security Risk Management for Economic and Social Prosperity [OECD/LEGAL/0415]; Recommendation of the Council on Consumer Protection in E-commerce [OECD/LEGAL/0422]; Declaration on the Digital Economy: Innovation, Growth and Social Prosperity (Cancún Declaration) [OECD/LEGAL/0426]; Declaration on Strengthening SMEs and Entrepreneurship for Productivity and Inclusive Growth [OECD/LEGAL/0439]; as well as the 2016 Ministerial Statement on Building more Resilient and Inclusive Labour Markets, adopted at the OECD Labour and Employment Ministerial Meeting;

HAVING REGARD to the Sustainable Development Goals set out in the 2030 Agenda for Sustainable Development adopted by the United Nations General Assembly (A/RES/70/1) as well as the 1948 Universal Declaration of Human Rights;

HAVING REGARD to the important work being carried out on artificial intelligence (hereafter, "AI") in other international governmental and non-governmental fora;

RECOGNISING that AI has pervasive, far-reaching and global implications that are transforming societies, economic sectors and the world of work, and are likely to increasingly do so in the future;

RECOGNISING that AI has the potential to improve the welfare and well-being of people, to contribute to positive sustainable global economic activity, to increase innovation and productivity, and to help respond to key global challenges;

RECOGNISING that, at the same time, these transformations may have disparate effects within, and between societies and economies, notably regarding economic shifts, competition, transitions in the labour market, inequalities, and implications for democracy and human rights, privacy and data protection, and digital security;

RECOGNISING that trust is a key enabler of digital transformation; that, although the nature of future AI applications and their implications may be hard to foresee, the trustworthiness of AI systems is a key factor for the diffusion and adoption of AI; and that a well-informed whole-of-society public debate is necessary for capturing the beneficial potential of the technology, while limiting the risks associated with it;

UNDERLINING that certain existing national and international legal, regulatory and policy frameworks already have relevance to AI, including those related to human rights, consumer and personal data protection, intellectual property rights, responsible business conduct, and competition, while noting that the appropriateness of some frameworks may need to be assessed and new approaches developed;

RECOGNISING that given the rapid development and implementation of AI, there is a need for a stable policy environment that promotes a human-centric approach to trustworthy AI, that fosters research, preserves economic incentives to innovate, and that applies to all stakeholders according to their role and the context;

CONSIDERING that embracing the opportunities offered, and addressing the challenges raised, by AI applications, and empowering stakeholders to engage is essential to fostering adoption of trustworthy AI in society, and to turning AI trustworthiness into a competitive parameter in the global marketplace;

On the proposal of the Committee on Digital Economy Policy:

I. AGREES that for the purpose of this Recommendation the following terms should be understood as follows:

–*AI system*: An AI system is a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments. AI systems are designed to operate with varying levels of autonomy.

–*AI system lifecycle*: AI system lifecycle phases involve: *i)* 'design, data and models'; which is a context-dependent sequence encompassing planning and design, data collection and processing, as well as model building; *ii)* 'verification and validation'; *iii)* 'deployment'; and *iv)* 'operation and monitoring'. These phases often take place in an iterative manner and are not necessarily sequential. The decision to retire

an AI system from operation may occur at any point during the operation and monitoring phase.

–AI knowledge: AI knowledge refers to the skills and resources, such as data, code, algorithms, models, research, know-how, training programmes, governance, processes and best practices, required to understand and participate in the AI system lifecycle.

–AI actors: AI actors are those who play an active role in the AI system lifecycle, including organisations and individuals that deploy or operate AI.

–Stakeholders: Stakeholders encompass all organisations and individuals involved in, or affected by, AI systems, directly or indirectly. AI actors are a subset of stakeholders.

Section 1:

Principles for responsible stewardship of trustworthy AI

II. RECOMMENDS that Members and non-Members adhering to this Recommendation (hereafter the "Adherents") promote and implement the following principles for responsible stewardship of trustworthy AI, which are relevant to all stakeholders.

III. CALLS ON all AI actors to promote and implement, according to their respective roles, the following Principles for responsible stewardship of trustworthy AI.

IV. UNDERLINES that the following principles are complementary and should be considered as a whole.

1.1.Inclusive growth, sustainable development and well-being

Stakeholders should proactively engage in responsible stewardship of trustworthy AI in pursuit of beneficial outcomes for people and the planet, such as augmenting human capabilities and enhancing creativity, advancing inclusion of underrepresented populations, reducing economic, social, gender and other inequalities, and protecting natural environments, thus invigorating inclusive growth, sustainable development and well-being.

1.2. Human-centred values and fairness

> a) AI actors should respect the rule of law, human rights and democratic values, throughout the AI system lifecycle. These include freedom, dignity and autonomy, privacy and data protection, non-discrimination and equality, diversity, fairness, social justice, and internationally recognised labour rights.

> b) To this end, AI actors should implement mechanisms and safeguards, such as capacity for human determination, that are appropriate to the context and consistent with the state of art.

1.3. Transparency and explainability

AI Actors should commit to transparency and responsible disclosure regarding AI systems. To this end, they should provide meaningful information, appropriate to the context, and consistent with the state of art:

      i. to foster a general understanding of AI systems,

      ii. to make stakeholders aware of their interactions with AI systems, including in the workplace,

      iii.to enable those affected by an AI system to understand the outcome, and,

      iv.to enable those adversely affected by an AI system to challenge its outcome based on plain and easy-to-understand information on the factors, and the logic that served as the basis for the prediction, recommendation or decision.

1.4. Robustness, security and safety

      a) AI systems should be robust, secure and safe throughout their entire lifecycle so that, in conditions of normal use, foreseeable use or misuse, or other adverse conditions, they function appropriately and do not pose unreasonable safety risk.

      b) To this end, AI actors should ensure traceability, including in relation to datasets, processes and decisions made during the AI system lifecycle, to enable analysis of the AI system's outcomes and responses to inquiry, appropriate to the context and consistent with the state of art.

      c) AI actors should, based on their roles, the context, and their ability to act, apply a systematic risk management approach to each phase of the AI system lifecycle on a continuous basis to address risks related to AI systems, including privacy, digital security, safety and bias.

1.5. Accountability

AI actors should be accountable for the proper functioning of AI systems and for the respect of the above principles, based on their roles, the context, and consistent with the state of art.

Section 2:

National policies and international co-operation

for trustworthy AI

V.RECOMMENDS that Adherents implement the following recommendations, consistent with the principles in section 1, in their national policies and international co-operation, with special attention to small and medium-sized enterprises (SMEs).

2.1. Investing in AI research and development

      a) Governments should consider long-term public investment, and encourage private investment, in research and development,

including interdisciplinary efforts, to spur innovation in trustworthy AI that focus on challenging technical issues and on AI-related social, legal and ethical implications and policy issues.

b) Governments should also consider public investment and encourage private investment in open datasets that are representative and respect privacy and data protection to support an environment for AI research and development that is free of inappropriate bias and to improve interoperability and use of standards.

2.2. Fostering a digital ecosystem for AI

Governments should foster the development of, and access to, a digital ecosystem for trustworthy AI. Such an ecosystem includes in particular digital technologies and infrastructure, and mechanisms for sharing AI knowledge, as appropriate. In this regard, governments should consider promoting mechanisms, such as data trusts, to support the safe, fair, legal and ethical sharing of data.

2.3. Shaping an enabling policy environment for AI

a) Governments should promote a policy environment that supports an agile transition from the research and development stage to the deployment and operation stage for trustworthy AI systems. To this effect, they should consider using experimentation to provide a controlled environment in which AI systems can be tested, and scaled-up, as appropriate.

b) Governments should review and adapt, as appropriate, their policy and regulatory frameworks and assessment mechanisms as they apply to AI systems to encourage innovation and competition for trustworthy AI.

2.4. Building human capacity and preparing for labour market transformation

a) Governments should work closely with stakeholders to prepare for the transformation of the world of work and of society. They should empower people to effectively use and interact with AI systems across the breadth of applications, including by equipping them with the necessary skills.

b) Governments should take steps, including through social dialogue, to ensure a fair transition for workers as AI is deployed, such as through training programmes along the working life, support for those affected by displacement, and access to new opportunities in the labour market.

c) Governments should also work closely with stakeholders to promote the responsible use of AI at work, to enhance the safety of workers and the quality of jobs, to foster entrepreneurship and

productivity, and aim to ensure that the benefits from AI are broadly and fairly shared.

2.5. International co-operation for trustworthy AI

a) Governments, including developing countries and with stakeholders, should actively co-operate to advance these principles and to progress on responsible stewardship of trustworthy AI.

b) Governments should work together in the OECD and other global and regional fora to foster the sharing of AI knowledge, as appropriate. They should encourage international, cross-sectoral and open multi-stakeholder initiatives to garner long-term expertise on AI.

c) Governments should promote the development of multi-stakeholder, consensus-driven global technical standards for interoperable and trustworthy AI.

d) Governments should also encourage the development, and their own use, of internationally comparable metrics to measure AI research, development and deployment, and gather the evidence base to assess progress in the implementation of these principles.

VI. INVITES the Secretary-General and Adherents to disseminate this Recommendation.

VII. INVITES non-Adherents to take due account of, and adhere to, this Recommendation.

VIII. INSTRUCTS the Committee on Digital Economy Policy:

a) to continue its important work on artificial intelligence building on this Recommendation and taking into account work in other international fora, and to further develop the measurement framework for evidence-based AI policies;

b) to develop and iterate further practical guidance on the implementation of this Recommendation, and to report to the Council on progress made no later than end December 2019;

c) to provide a forum for exchanging information on AI policy and activities including experience with the implementation of this Recommendation, and to foster multi-stakeholder and interdisciplinary dialogue to promote trust in and adoption of AI; and

d) to monitor, in consultation with other relevant Committees, the implementation of this Recommendation and report thereon to the Council no later than five years following its adoption and regularly thereafter.

OECD AI Policy Adherents
>The following countries have endorsed the OECD AI Principles

OECD Member Countries
>Australia
>Austria
>Belgium
>Canada
>Chile
>*Colombia*
>Czech Republic
>Denmark
>Estonia
>Finland
>France
>Germany
>Greece
>Hungary
>Iceland
>Ireland
>Israel
>Italy
>Japan
>Korea
>Latvia
>Lithuania
>Luxembourg
>Mexico
>Netherlands
>New Zealand
>Norway
>Poland
>Portugal
>Slovak Republic
>Slovenia
>Spain
>Sweden
>Switzerland
>Turkey
>United Kingdom
>United States

OECD Non-Member Countries
       Argentina
       Brazil
       Costa Rica
       Malta
       Peru
       Romania
       Ukraine

G-20 Countries
       China
       India
       Indonesia
       Russia
       Saudi Arabia
       South Africa

As of December 1, 2020, 51 countries have endorsed the OECD/G20 AI Principles.

Universal Guidelines for AI

**Universal Guidelines for Artificial Intelligence
23 October 2018
Brussels, Belgium**

New developments in Artificial Intelligence are transforming the world, from science and industry to government administration and finance. The rise of AI decision-making also implicates fundamental rights of fairness, accountability, and transparency. Modern data analysis produces significant outcomes that have real life consequences for people in employment, housing, credit, commerce, and criminal sentencing. Many of these techniques are entirely opaque, leaving individuals unaware whether the decisions were accurate, fair, or even about them.

We propose these Universal Guidelines to inform and improve the design and use of AI. The Guidelines are intended to maximize the benefits of AI, to minimize the risk, and to ensure the protection of human rights. These Guidelines should be incorporated into ethical standards, adopted in national law and international agreements, and built into the design of systems. We state clearly that the primary responsibility for AI systems must reside with those institutions that fund, develop, and deploy these systems.

1. **Right to Transparency.** All individuals have the right to know the basis of an AI decision that concerns them. This includes access to the factors, the logic, and techniques that produced the outcome.
2. **Right to Human Determination.** All individuals have the right to a final determination made by a person.
3. **Identification Obligation.** The institution responsible for an AI system must be made known to the public.
4. **Fairness Obligation.** Institutions must ensure that AI systems do not reflect unfair bias or make impermissible discriminatory decisions.
5. **Assessment and Accountability Obligation.** An AI system should be deployed only after an adequate evaluation of its purpose and objectives, its benefits, as well as its risks. Institutions must be responsible for decisions made by an AI system.
6. **Accuracy, Reliability, and Validity Obligations.** Institutions must ensure the accuracy, reliability, and validity of decisions.
7. **Data Quality Obligation.** Institutions must establish data provenance, and assure quality and relevance for the data input into algorithms.

8. **Public Safety Obligation.** Institutions must assess the public safety risks that arise from the deployment of AI systems that direct or control physical devices, and implement safety controls.
9. **Cybersecurity Obligation.** Institutions must secure AI systems against cybersecurity threats.
10. **Prohibition on Secret Profiling.** No institution shall establish or maintain a secret profiling system.
11. **Prohibition on Unitary Scoring.** No national government shall establish or maintain a general-purpose score on its citizens or residents.
12. **Termination Obligation.** An institution that has established an AI system has an affirmative obligation to terminate the system if human control of the system is no longer possible.

UGAI Explanatory Memorandum

Context

The Universal Guidelines on Artificial Intelligence (UGAI) call attention to the growing challenges of intelligent computational systems and proposes concrete recommendations that can improve and inform their design. At its core, the purpose of the UGAI is to promote transparency and accountability for these systems and to ensure that people retain control over the systems they create. Not all systems fall within the scope of these Guidelines. Our concern is with those systems that impact the rights of people. Above all else, these systems should do no harm.

The declaration is timely. Governments around the word are developing policy proposals and institutions, both public and private, are supporting research and development of "AI." Invariably, there will be an enormous impact on the public, regardless of their participation in the design and development of these systems. And so, the UGAI reflects a public perspective on these challenges.

The UGAI were announced at the 2018 International Data Protection and Privacy Commissioners Conference, among the most significant meetings of technology leaders and data protection experts in history.

The UGAI builds on prior work by scientific societies, think tanks, NGOs, and international organizations. The UGAI incorporates elements of human rights doctrine, data protection law, and ethical guidelines. The Guidelines include several well-established principles for AI governance, and put forward new principles not previously found in similar policy frameworks.

Terminology

The term "Artificial Intelligence" is both broad and imprecise. It includes aspects of machine learning, rule-based decision-making, and other computational techniques. There are also disputes regarding whether Artificial Intelligence is possible. The UGAI simply acknowledges that this term, in common use, covers a wide range of related issues and adopts the term to engage the current debate. There is no attempt here to define its boundaries, other than to assume that AI requires some degree of automated decision-making. The term "Guidelines" follows the practice of policy frameworks that speak primarily to governments and private companies.

The UGAI speaks to the obligations of "institutions" and the rights of "individuals." This follows from the articulation of fair information practices in the data protection field. The UGAI takes the protection of the

individual as a fundamental goal. Institutions, public and private, are understood to be those entities that develop and deploy AI systems. The term "institution" was chosen rather than the more familiar "organization" to underscore the permanent, ongoing nature of the obligations set out in the Guidelines. There is one principle that is addressed to "national governments." The reason for this is discussed below.

Application

These Guidelines should be incorporated into ethical standards, adopted in national law and international agreements, and built into the design of systems.

The Principles

The elements of the **Transparency Principle** can be found in several modern privacy laws, including the US Privacy Act, the EU Data Protection Directive, the GDPR, and the Council of Europe Convention 108. The aim of this principle is to enable independent accountability for automated decisions, with a primary emphasis on the right of the individual to know the basis of an adverse determination. In practical terms, it may not be possible for an individual to interpret the basis of a particular decision, but this does not obviate the need to ensure that such an explanation is possible.

The **Right to a Human Determination** reaffirms that individuals and not machines are responsible for automated decision-making. In many instances, such as the operation of an autonomous vehicle, it would not be possible or practical to insert a human decision prior to an automated decision. But the aim remains to ensure accountability. Thus where an automated system fails, this principle should be understood as a requirement that a human assessment of the outcome be made.

Identification Obligation. This principle seeks to address the identification asymmetry that arises in the interaction between individuals and AI systems. An AI system typically knows a great deal about an individual; the individual may not even know the operator of the AI system. The Identification Obligation establishes the foundation of AI accountability which is to make clear the identity of an AI system and the institution responsible.

The **Fairness Obligation** recognizes that all automated systems make decisions that reflect bias and discrimination, but such decisions should not be normatively unfair. There is no simple answer to the question as to what is unfair or impermissible. The evaluation often depends on context. But the Fairness Obligation makes clear that an assessment of objective outcomes alone is not sufficient to evaluate an AI system.

Normative consequences must be assessed, including those that preexist or may be amplified by an AI system.

The **Assessment and Accountability Obligation** speaks to the obligation to assess an AI system prior to and during deployment. Regarding assessment, it should be understood that a central purpose of this obligation is to determine whether an AI system should be established. If an assessment reveals substantial risks, such as those suggested by principles concerning Public Safety and Cybersecurity, then the project should not move forward.

The **Accuracy, Reliability, and Validity Obligations** set out key responsibilities associated with the outcome of automated decisions. The terms are intended to be interpreted both independently and jointly.

The **Data Quality Principle** follows from the preceding obligation.

The **Public Safety Obligation** recognizes that AI systems control devices in the physical world. For this reason, institutions must both assess risks and take precautionary measures as appropriate.

The **Cybersecurity Obligation** follows from the Public Safety Obligation and underscores the risk that even well-designed systems may be the target of hostile actors. Those who develop and deploy AI systems must take these risks into account.

The **Prohibition on Secret Profiling** follows from the earlier Identification Obligation. The aim is to avoid the information asymmetry that arises increasingly with AI systems and to ensure the possibility of independent accountability.

The **Prohibition on Unitary Scoring** speaks directly to the risk of a single, multi-purpose number assigned by a government to an individual. In data protection law, universal identifiers that enable the profiling of individuals across are disfavored. These identifiers are often regulated and in some instances prohibited. The concern with universal scoring, described here as "unitary scoring," is even greater. A unitary score reflects not only a unitary profile but also a predetermined outcome across multiple domains of human activity. There is some risk that unitary scores will also emerge in the private sector. Conceivably, such systems could be subject to market competition and government regulations. But there is not even the possibility of counterbalance with unitary scores assigned by government, and therefore they should be prohibited.

The **Termination Obligation** is the ultimate statement of accountability for an AI system. The obligation presumes that systems must remain within human control. If that is no longer possible, the system should be terminated.

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Universal Declaration of Human Rights

Preamble

Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world,

Whereas disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind, and the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want has been proclaimed as the highest aspiration of the common people,

Whereas it is essential, if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, that human rights should be protected by the rule of law,

Whereas it is essential to promote the development of friendly relations between nations,

Whereas the peoples of the United Nations have in the Charter reaffirmed their faith in fundamental human rights, in the dignity and worth of the human person and in the equal rights of men and women and have determined to promote social progress and better standards of life in larger freedom,

Whereas Member States have pledged themselves to achieve, in co-operation with the United Nations, the promotion of universal respect for and observance of human rights and fundamental freedoms,

Whereas a common understanding of these rights and freedoms is of the greatest importance for the full realization of this pledge,

Now, Therefore THE GENERAL ASSEMBLY proclaims THIS UNIVERSAL DECLARATION OF HUMAN RIGHTS as a common standard of achievement for all peoples and all nations, to the end that every individual and every organ of society, keeping this Declaration constantly in mind, shall strive by teaching and education to promote respect for these rights and freedoms and by progressive measures, national and international, to secure their universal and effective recognition and observance, both among the peoples of Member States themselves and among the peoples of territories under their jurisdiction.

Article 1
All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

Article 2
Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status. Furthermore, no distinction shall be made on the basis of the political, jurisdictional or international status of the country or territory to which a person belongs, whether it be independent, trust, non-self-governing or under any other limitation of sovereignty.

Article 3
Everyone has the right to life, liberty and security of person.

Article 4
No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms.

Article 5
No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment.

Article 6
Everyone has the right to recognition everywhere as a person before the law.

Article 7
All are equal before the law and are entitled without any discrimination to equal protection of the law. All are entitled to equal protection against any discrimination in violation of this Declaration and against any incitement to such discrimination.

Article 8
Everyone has the right to an effective remedy by the competent national tribunals for acts violating the fundamental rights granted him by the constitution or by law.

Article 9
No one shall be subjected to arbitrary arrest, detention or exile.

Article 10
Everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal, in the determination of his rights and obligations and of any criminal charge against him.

Article 11
(1) Everyone charged with a penal offence has the right to be presumed innocent until proved guilty according to law in a public trial at which he has had all the guarantees necessary for his defence.
(2) No one shall be held guilty of any penal offence on account of any act or omission which did not constitute a penal offence, under national or international law, at the time when it was committed. Nor shall a heavier penalty be imposed than the one that was applicable at the time the penal offence was committed.

Article 12
No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.

Article 13
(1) Everyone has the right to freedom of movement and residence within the borders of each state.

(2) Everyone has the right to leave any country, including his own, and to return to his country.

Article 14
(1) Everyone has the right to seek and to enjoy in other countries asylum from persecution.
(2) This right may not be invoked in the case of prosecutions genuinely arising from non-political crimes or from acts contrary to the purposes and principles of the United Nations.

Article 15

(1) Everyone has the right to a nationality.
(2) No one shall be arbitrarily deprived of his nationality nor denied the right to change his nationality.

Article 16

(1) Men and women of full age, without any limitation due to race, nationality or religion, have the right to marry and to found a family. They are entitled to equal rights as to marriage, during marriage and at its dissolution.
(2) Marriage shall be entered into only with the free and full consent of the intending   spouses.
(3) The family is the natural and fundamental group unit of society and is entitled to protection by society and the State.

Article 17

(1) Everyone has the right to own property alone as well as in association with others.
(2) No one shall be arbitrarily deprived of his property.

Article 18

Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his religion or belief, and freedom, either alone or in community with others and in public or private, to manifest his religion or belief in teaching, practice, worship and observance.

Article 19

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

Article 20

(1) Everyone has the right to freedom of peaceful assembly and association.
(2) No one may be compelled to belong to an association.

Article 21

(1) Everyone has the right to take part in the government of his country, directly   or   through   freely   chosen   representatives.

(2) Everyone has the right of equal access to public service in his country.
(3) The will of the people shall be the basis of the authority of government; this will shall be expressed in periodic and genuine elections which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures.

Article 22

Everyone, as a member of society, has the right to social security and is entitled to realization, through national effort and international co-operation and in accordance with the organization and resources of each State, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality.

Article 23

(1) Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment.
(2) Everyone, without any discrimination, has the right to equal pay for equal work.
(3) Everyone who works has the right to just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection.
(4) Everyone has the right to form and to join trade unions for the protection of his interests.

Article 24

Everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay.

Article 25

(1) Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.
(2) Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection.

Article 26

(1) Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis

of   merit.
(2) Education shall be directed to the full development of the human
personality and to the strengthening of respect for human rights and
fundamental freedoms. It shall promote understanding, tolerance and
friendship among all nations, racial or religious groups, and shall further the
activities of the United Nations for the maintenance of peace.
(3) Parents have a prior right to choose the kind of education that shall be
given to their children.

Article 27
(1) Everyone has the right freely to participate in the cultural life of the
community, to enjoy the arts and to share in scientific advancement and its
benefits.
(2) Everyone has the right to the protection of the moral and material
interests resulting from any scientific, literary or artistic production of
which he is the author.

Article 28
Everyone is entitled to a social and international order in which the rights
and freedoms set forth in this Declaration can be fully realized.

Article 29
(1) Everyone has duties to the community in which alone the free and full
development of his personality is possible.
(2) In the exercise of his rights and freedoms, everyone shall be subject only
to such limitations as are determined by law solely for the purpose of
securing due recognition and respect for the rights and freedoms of others
and of meeting the just requirements of morality, public order and the
general welfare in a democratic society.
(3) These rights and freedoms may in no case be exercised contrary to the
purposes and principles of the United Nations.

Article 30
Nothing in this Declaration may be interpreted as implying for any
State, group or person any right to engage in any activity or to perform any
act aimed at the destruction of any of the rights and freedoms set forth
herein.

GPA Declaration on Ethics and Data Protection in AI

DECLARATION ON ETHICS AND DATA PROTECTION IN
ARTIFICAL INTELLIGENCE
40th International Conference of Data Protection and Privacy
Commissioners
23rd October 2018, Brussels

*[Note: The International Conference of Data Protection and Privacy
Commissioners was later renamed the Global Privacy Assembly]*

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**The 40th International Conference of Data Protection and Privacy
Commissioners:**

Artificial Intelligence and Democratic Values 2022
Center for AI and Digital Policy

Considering the initial discussion at the 38th International Conference of Data Protection and Privacy Commissioners in Marrakesh on Artificial intelligence, Robotics, Privacy and Data Protection;

Recognizing that artificial intelligence systems may bring significant benefits for users and society, including by: increasing the rapidity of processes and supporting decision-making; creating new ways to participate in democratic processes; improving efficiency in public sector and industry; achieving more equitable distribution of resources and opportunities; offering new methods and solutions in various fields such as public health, medical care, security, sustainable development, agriculture and transport; bringing new opportunities in scientific research and education and; providing individuals with more personalized services;

Taking into account the significant progress in certain areas of artificial intelligence, in particular regarding the processing of large amounts of information, the analysis and prediction of human behavior and characteristics, and in related fields such as robotics, computer vision and autonomous systems, likely to make significant progress in the near future;

Highlighting the rapid advancement of big data and artificial intelligence, notably machine learning, in particular with the development of deep learning technologies, allowing algorithms to solve complex operations leading to potential decisions, making however such processes more opaque;

Affirming that the respect of the rights to privacy and data protection are increasingly challenged by the development of artificial intelligence and that this development should be complemented by ethical and human rights considerations;

Considering that machine learning technologies in particular, and artificial intelligence systems in general, may rely on the processing of large sets of personal data for their development, potentially impacting data protection and privacy; also taking into account the potential risks induced by the current trend of market concentration in the field of artificial intelligence;

Recognizing the link between collections, uses and disclosures of personal information – the traditional sphere of privacy and data protection – on the one hand, and the direct impacts on human rights more broadly, most notably regarding discrimination and freedom of expression and information, and thus acknowledging the need for data protection and

privacy authorities to think about human rights more broadly, and for data protection and privacy authorities to work with other authorities addressing human rights;

Pointing out that some data sets used to train machine learning-based and artificial intelligence systems have been found to contain inherent bias resulting in decisions which can unfairly discriminate against certain individuals or groups, potentially restricting the availability of certain services or content, and thus interfering with individuals' rights such as freedom of expression and information or resulting in the exclusion of people from certain aspects of personal, social, professional life;

Stressing that artificial intelligence powered systems whose decisions cannot be explained raise fundamental questions of accountability not only for privacy and data protection law but also liability in the event of errors and harm;

Noting that many stakeholders in the field of artificial intelligence have expressed their concerns about the risks of malicious use of artificial intelligence, as well as the risks related to privacy, data protection and human dignity, pointing out for example that the development of artificial intelligence in combination with mass surveillance raises concerns about their possible use to curtail fundamental rights and freedoms;

Highlighting that those risks and challenges may affect individuals and society, and that the extent and nature of potential consequences are currently uncertain;

Emphasising the importance of trust, since strong data protection and privacy safeguards help to build individuals' trust in how their data is processed, which encourages data sharing and thereby promotes innovation;

Taking the view that the current challenges triggered by the development of artificial intelligence and machine learning systems reinforce the need for the adoption of an international approach and standards, in order to ensure the promotion and protection of human rights in all digital developments at international level;

Reaffirming the commitment of data protection authorities and the Conference of Data Protection and Privacy Commissioners to uphold data protection and privacy principles in adapting to this evolving environment,

notably by engaging resources and developing new skills in order to be prepared for future changes.

The **40th International Conference of Data Protection and Privacy Commissioners** considers that any creation, development and use of artificial intelligence systems shall fully respect human rights, particularly the rights to the protection of personal data and to privacy, as well as human dignity, non-discrimination and fundamental values, and shall provide solutions to allow individuals to maintain control and understanding of artificial intelligence systems.
The Conference therefore endorses the following guiding principles, as its core values to preserve human rights in the development of artificial intelligence:

1. Artificial intelligence and machine learning technologies should be designed, developed and used in respect of fundamental human rights and in accordance with the **fairness principle**, in particular by:
   a. Considering individuals' reasonable expectations by ensuring that the use of artificial intelligence systems remains consistent with their original purposes, and that the data are used in a way that is not incompatible with the original purpose of their collection,
   b. taking into consideration not only the impact that the use of artificial intelligence may have on the individual, but also the collective impact on groups and on society at large,
   c. ensuring that artificial intelligence systems are developed in a way that facilitates human development and does not obstruct or endanger it, thus recognizing the need for delineation and boundaries on certain uses,

2. **Continued attention and vigilance,** as well as accountability, for the potential effects and consequences of, artificial intelligence systems should be ensured, in particular by:
   a. promoting accountability of all relevant stakeholders to individuals, supervisory authorities and other third parties as appropriate, including through the realization of audit, continuous monitoring and impact assessment of artificial intelligence systems, and periodic review of oversight mechanisms;
   b. fostering collective and joint responsibility, involving the whole chain of actors and stakeholders, for example with the development of collaborative standards and the sharing of best practices,

c. investing in awareness raising, education, research and training in order to ensure a good level of information on and understanding of artificial intelligence and its potential effects in society, and

d. establishing demonstrable governance processes for all relevant actors, such as relying on trusted third parties or the setting up of independent ethics committees,

3. Artificial intelligence **systems transparency and intelligibility** should be improved, with the objective of effective implementation, in particular by:

a. investing in public and private scientific research on explainable artificial intelligence,

b. promoting transparency, intelligibility and reachability, for instance through the development of innovative ways of communication, taking into account the different levels of transparency and information required for each relevant audience,

c. making organizations' practices more transparent, notably by promoting algorithmic transparency and the auditability of systems, while ensuring meaningfulness of the information provided, and

d. guaranteeing the right to informational self-determination, notably by ensuring that individuals are always informed appropriately when they are interacting directly with an artificial intelligence system or when they provide personal data to be processed by such systems,

e. providing adequate information on the purpose and effects of artificial intelligence systems in order to verify continuous alignment with expectation of individuals and to enable overall human control on such systems.

4. As part of an overall "ethics by design" approach, artificial intelligence systems should be **designed and developed responsibly**, by applying the principles of **privacy by default and privacy by design**, in particular by:

a. implementing technical and organizational measures and procedures – proportional to the type of system that is developed – to ensure that data subjects' privacy and personal data are respected, both when determining the means of the processing and at the moment of data processing,

b. assessing and documenting the expected impacts on individuals and society at the beginning of an artificial intelligence project and for relevant developments during its entire life cycle, and

    c. identifying specific requirements for ethical and fair use of the systems and for respecting human rights as part of the development and operations of any artificial intelligence system,

5. **Empowerment of every individual** should be promoted, and the exercise of individuals' rights should be encouraged, as well as the creation of opportunities for public engagement, in particular by:
    a. respecting data protection and privacy rights, including where applicable the right to information, the right to access, the right to object to processing and the right to erasure, and promoting those rights through education and awareness campaigns,
    b. respecting related rights including freedom of expression and information, as well as non- discrimination,
    c. recognizing that the right to object or appeal applies to technologies that influence personal development or opinions and guaranteeing, where applicable, individuals' right not to be subject to a decision based solely on automated processing if it significantly affects them and, where not applicable, guaranteeing individuals' right to challenge such decision,
    d. using the capabilities of artificial intelligence systems to foster an equal empowerment and enhance public engagement, for example through adaptable interfaces and accessible tools.

6. Unlawful **biases or discriminations** that may result from the use of data in artificial intelligence should be reduced and mitigated, including by:
    a. ensuring the respect of international legal instruments on human rights and non-discrimination,
    b. investing in research into technical ways to identify, address and mitigate biases,
    c. taking reasonable steps to ensure the personal data and information used in automated decision making is accurate, up-to-date and as complete as possible, and
    d. elaborating specific guidance and principles in addressing biases and discrimination, and promoting individuals' and stakeholders' awareness.

Taking into consideration the principles above, the 40th International Conference of Data Protection and Privacy Commissioners calls for **common governance principles on artificial intelligence** to be established, fostering concerted international efforts in this field, in order to ensure that its development and use take place in accordance with ethics

and human values, and respect human dignity. These common governance principles must be able to tackle the challenges raised by the rapid evolutions of artificial intelligence technologies, on the basis of a multi-stakeholder approach in order to address all cross-sectoral issues at stake. They must take place at an international level since the development of artificial intelligence is a trans- border phenomenon and may affect all humanity. The Conference should be involved in this international effort, working with and supporting general and sectoral authorities in other fields such as competition, market and consumer regulation.

The 40th International Conference of Data Protection and Privacy Commissioners therefore establishes, as a contribution to a future common governance at the international level, and in order to further elaborate guidance to accompany the principles on Ethics and Data Protection in Artificial Intelligence, a **permanent working group** addressing the challenges of artificial intelligence development. This **working group on Ethics and Data Protection in Artificial Intelligence** will be in charge of promoting understanding of and respect for the principles of the present resolution, by all relevant parties involved in the development of artificial intelligence systems, including governments and public authorities, standardization bodies, artificial intelligence systems designers, providers and researchers, companies, citizens and end users of artificial intelligence systems. The working group on Ethics and Data Protection in Artificial Intelligence shall take into account the work carried out by other working groups of the Conference and shall report regularly on its activities to the Conference. The Conference thus endeavors to proactively support an active public debate on digital ethics aiming at the creation of a strong ethical culture and personal awareness in this field.

GPA Resolution on AI and Accountability

**RESOLUTION ON ACCOUNTABILITY
IN THE DEVELOPMENT AND USE OF ARTIFICIAL
INTELLIGENCE**
Global Privacy Assembly
October 2020

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  Superintendence of Industry and Commerce, Colombia
  Federal Commissioner for Data Protection and Freedom of
  Information, Germany
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  National Privacy Commission, Philippines
  Personal Data Protection Office, Poland
  National Data Protection Commission, Portugal
  Data Protection Authority, Republic of San Marino
  National Commission for Informatics and Liberties, Burkina Faso
  Office of the Information and Privacy Commissioner, Ontario, Canada

The 2020 GLOBAL PRIVACY ASSEMBLY:

Recalling the Declaration on Ethics and Data Protection in Artificial
Intelligence made by the 40th International Conference of the Data
Protection and Privacy Commissioners on 23 October 2018, which
endorsed _inter alia_ the principle of accountability of all relevant
stakeholders to individuals, supervisory authorities and other third parties,
and which established a permanent Working Group (**AI WG**) to address the
challenges of development of artificial intelligence (**AI**), and promote
understanding of and respect for the principles of the Declaration,

Highlighting that the Work Programme of the AI WG includes an action to
prepare a statement on the essential need for accountability and liability of
human actors for AI systems,

Taking into account the results of a survey conducted by the AI WG in May and June 2020, to gather the views of the members of the Global Privacy Assembly on accountability for AI systems, as detailed in the Explanatory Note,

Noting that international organisations (including the United Nations, the Organisation for Economic Co-operation and Development, the Council of Europe and the European Commission), governments, civil society bodies, and technology companies have produced and continue to produce guidelines and recommendation on the legal and ethical development of AI, and that the need for accountability and a human-centric approach are common themes within these guidelines,

Noting that accountability is to be understood as the compliance and demonstration of compliance with personal data protection and privacy regulations, in particular through the adoption and implementation of appropriate, practicable, systematic and effective measures,

Affirming that the responsibility for the operation and effects of AI systems remains with human actors,

Taking the view that in order to be effective, accountability obligations should be assessed against clearly defined principles and frameworks, and extend to both organisations that develop AI systems and organisations that use them,

Emphasising that the principle of accountability encompasses accountability to the people affected by the decisions made by or with AI systems, as well as to supervisory authorities and, where appropriate, to other third parties, and that beyond the compliance element, accountability should also be demonstrated in order to build trust with the stakeholders,

Recognising that AI systems may affect human rights in different ways, the application of specific obligations should take into account the risks for human rights as well as the importance of the principle of human accountability,

Asserting that in order to support the trustworthiness of organisations developing and using AI systems, these organisations should work closely with policy-makers, individuals and other stakeholders (e.g. non-government organisations, public authorities and academia) to resolve concerns and rectify adverse impacts on human rights.

The 2020 GLOBAL PRIVACY ASSEMBLY therefore resolves to:
1. Urge organisations that develop or use AI systems to consider implementing the following accountability measures:

(1) Assess the potential impact to human rights (including data protection and privacy rights) before the development and/or use of AI;

(2) Test the robustness, reliability, accuracy and data security of AI before putting it into use, including identifying and addressing bias in the systems and the data they use that may lead to unfair outcomes;

(3) Keep records of impact assessment, design, development, testing and use of AI;

(4) Disclose the results of the data protection, privacy and human rights impact assessment of AI;

(5) Ensure transparency and openness by disclosing the use of AI, the data being used and the logic involved in the AI;

(6) Ensure an accountable human actor is identified (a) with whom concerns related to automated decisions can be raised and rights can be exercised, and (b) who can trigger evaluation of the decision process and human intervention;

(7) Provide explanations in clear and understandable language for the automated decisions made by AI upon request;

(8) Make human intervention on the automated decision made by AI upon request;

(9) Continuously monitor and evaluate the performance and impacts of AI by human beings, and act promptly and firmly to address identified issues;

(10) Implement whistleblowing / reporting mechanisms about non-compliance or significant risk in the use of AI;

(11) Ensure the auditability of AI systems and be prepared to demonstrate accountability to data protection authorities on request; and

(12) Engage in multi-stakeholder discussions (including with non-governmental organisations, public authorities and academia) to identify and address the wider socio- economic impact of AI and to ensure algorithmic vigilance.

2. Urge organisations that develop or use AI systems to implement accountability measures which are appropriate regarding the risks of interference with human rights.

3. Call upon all members of the Global Privacy Assembly to work with organisations that develop or use AI systems in their jurisdictions and globally to promote the principles adopted in its 2018 resolution, and accountability in the development and use of AI, and the adoption of accountability measures;

4. Encourage governments to consider the need to make legislative changes in personal data protection laws, to make clear the legal obligations regarding accountability in the development and use of AI, where such provisions are not already in place; and

5. Encourage governments, public authorities, standardisation bodies, organisations developing or using AI systems and all other relevant stakeholders to work with data protection authorities in establishing principles, standards, and accountability mechanisms, such as certification, for the purpose of demonstrating legal compliance, accountability and ethics in the development and use of AI systems.

[An Explanatory Note accompanies the Resolution. The Explanatory Note summarizes the opinions of the members of the Global Privacy Assembly on the measures for demonstrating accountability in the development and use of AI.]

UNESCO Recommendation on AI Ethics

The UNESCO Recommendation on the Ethics of Artificial Intelligence

Adopted November 24, 2021

Preamble

The General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO), meeting in Paris from 9 to 24, at its 41st session,

Recognizing the profound and dynamic positive and negative impacts of artificial intelligence (AI) on societies, environment, ecosystems and human lives, including the human mind, in part because of the new ways in which its use influences human thinking, interaction and decision-making and affects education, human, social and natural sciences, culture, and communication and information,

Recalling that, by the terms of its Constitution, UNESCO seeks to contribute to peace and security by promoting collaboration among nations through education, the sciences, culture, and communication and information, in order to further universal respect for justice, for the rule of law and for the human rights and fundamental freedoms which are affirmed for the peoples of the world,

Convinced that the Recommendation presented here, as a standard-setting instrument developed through a global approach, based on international law, focusing on human dignity and human rights, as well as gender equality, social and economic justice and development, physical and mental wellbeing, diversity, interconnectedness, inclusiveness, and environmental and ecosystem protection can guide AI technologies in a responsible direction,

Guided by the purposes and principles of the Charter of the United Nations,

Considering that AI technologies can be of great service to humanity and all countries can benefit from them, but also raise fundamental ethical concerns, for instance regarding the biases they can embed and exacerbate, potentially resulting in discrimination, inequality, digital divides, exclusion and a threat to cultural, social and biological diversity and social or

economic divides; the need for transparency and understandability of the workings of algorithms and the data with which they have been trained; and their potential impact on, including but not limited to, human dignity, human rights and fundamental freedoms, gender equality, democracy, social, economic, political and cultural processes, scientific and engineering practices, animal welfare, and the environment and ecosystems,

Also recognizing that AI technologies can deepen existing divides and inequalities in the world, within and between countries, and that justice, trust and fairness must be upheld so that no country and no one should be left behind, either by having fair access to AI technologies and enjoying their benefits or in the protection against their negative implications, while recognizing the different circumstances of different countries and respecting the desire of some people not to take part in all technological developments,

Conscious of the fact that all countries are facing an acceleration in the use of information and communication technologies and AI technologies, as well as an increasing need for media and information literacy, and that the digital economy presents important societal, economic and environmental challenges and opportunities of benefit-sharing, especially for low- and middleincome countries (LMICs), including but not limited to least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing States (SIDS), requiring the recognition, protection and promotion of endogenous cultures, values and knowledge in order to develop sustainable digital economies,

Further recognizing that AI technologies have the potential to be beneficial to the environment and ecosystems, and in order for those benefits to be realized, potential harms to and negative impacts on the environment and ecosystems should not be ignored but instead addressed, **_Noting_** that addressing risks and ethical concerns should not hamper innovation and development but rather provide new opportunities and stimulate ethically-conducted research and innovation that anchor AI technologies in human rights and fundamental freedoms, values and principles, and moral and ethical reflection,

Also recalling that in November 2019, the General Conference of UNESCO, at its 40th session, adopted 40 C/Resolution 37, by which it mandated the Director-General "to prepare an international standard-setting

instrument on the ethics of artificial intelligence (AI) in the form of a recommendation", which is to be submitted to the General Conference at its 41st session in 2021,

Recognizing that the development of AI technologies necessitates a commensurate increase in data, media and information literacy as well as access to independent, pluralistic, trusted sources of information, including as part of efforts to mitigate risks of misinformation, disinformation and hate speech, and harm caused through the misuse of personal data,

Observing that a normative framework for AI technologies and its social implications finds its basis in international and national legal frameworks, human rights and fundamental freedoms, ethics, need for access to data, information and knowledge, the freedom of research and innovation, human and environmental and ecosystem well-being, and connects ethical values and principles to the challenges and opportunities linked to AI technologies, based on common understanding and shared aims,

Also recognizing that ethical values and principles can help develop and implement rights-based policy measures and legal norms, by providing guidance with a view to the fast pace of technological development,

Also convinced that globally accepted ethical standards for AI technologies, in full respect of international law, in particular human rights law, can play a key role in developing AI-related norms across the globe,

Bearing in mind the Universal Declaration of Human Rights (1948), the instruments of the international human rights framework, including the Convention Relating to the Status of Refugees (1951), the Discrimination (Employment and Occupation) Convention (1958), the International Convention on the Elimination of All Forms of Racial Discrimination (1965), the International Covenant on Civil and Political Rights (1966), the International Covenant on Economic, Social and Cultural Rights (1966), the Convention on the Elimination of All Forms of Discrimination against Women (1979), the Convention on the Rights of the Child (1989), and the Convention on the Rights of Persons with Disabilities (2006), the Convention against Discrimination in Education (1960), the Convention on the Protection and Promotion of the Diversity of Cultural Expressions (2005), as well as any other relevant international instruments, recommendations and declarations,

Also noting the United Nations Declaration on the Right to Development (1986); the Declaration on the Responsibilities of the Present Generations Towards Future Generations (1997); the Universal Declaration on Bioethics and Human Rights (2005); the United Nations Declaration on the Rights of Indigenous Peoples (2007); the United Nations General Assembly resolution on the review of the World Summit on the Information Society (A/RES/70/125) (2015); the United Nations General Assembly Resolution on Transforming our world: the 2030 Agenda for Sustainable Development (A/RES/70/1) (2015); the Recommendation Concerning the Preservation of, and Access to, Documentary Heritage Including in Digital Form (2015); the Declaration of Ethical Principles in relation to Climate Change (2017); the Recommendation on Science and Scientific Researchers (2017); the Internet Universality Indicators (endorsed by UNESCO's International Programme for the Development of Communication in 2018), including the ROAM principles (endorsed by UNESCO's General Conference in 2015); the Human Rights Council's resolution on "The right to privacy in the digital age" (A/HRC/RES/42/15) (2019); and the Human Rights Council's resolution on "New and emerging digital technologies and human rights" (A/HRC/RES/41/11) (2019),

Emphasizing that specific attention must be paid to LMICs, including but not limited to LDCs, LLDCs and SIDS, as they have their own capacity but have been underrepresented in the AI ethics debate, which raises concerns about neglecting local knowledge, cultural pluralism, value systems and the demands of global fairness to deal with the positive and negative impacts of AI technologies,

Also conscious of the many existing national policies, other frameworks and initiatives elaborated by relevant United Nations entities, intergovernmental organizations, including regional organizations, as well as those by the private sector, professional organizations, non-governmental organizations, and the scientific community, related to the ethics and regulation of AI technologies,

Further convinced that AI technologies can bring important benefits, but that achieving them can also amplify tension around innovation, asymmetric access to knowledge and technologies, including the digital and civic literacy deficit that limits the public's ability to engage in topics related to AI, as well as barriers to access to information and gaps in capacity, human and institutional capacities, barriers to access to technological innovation, and a lack of adequate physical and digital

infrastructure and regulatory frameworks, including those related to data, all of which need to be addressed,

Underlining that the strengthening of global cooperation and solidarity, including through multilateralism, is needed to facilitate fair access to AI technologies and address the challenges that they bring to diversity and interconnectivity of cultures and ethical systems, to mitigate potential misuse, to realize the full potential that AI can bring, especially in the area of development, and to ensure that national AI strategies are guided by ethical principles,

Taking fully into account that the rapid development of AI technologies challenges their ethical implementation and governance, as well as the respect for and protection of cultural diversity, and has the potential to disrupt local and regional ethical standards and values,

1. ***Adopts*** the present Recommendation on the Ethics of Artificial Intelligence;
2. ***Recommends*** that Member States apply on a voluntary basis the provisions of this Recommendation by taking appropriate steps, including whatever legislative or other measures may be required, in conformity with the constitutional practice and governing structures of each State, to give effect within their jurisdictions to the principles and norms of the Recommendation in conformity with international law, including international human rights law;
3. ***Also recommends*** that Member States engage all stakeholders, including business enterprises, to ensure that they play their respective roles in the implementation of this Recommendation; and bring the Recommendation to the attention of the authorities, bodies, research and academic organizations, institutions and organizations in public, private and civil society sectors involved in AI technologies, so that the development and use of AI technologies are guided by both sound scientific research as well as ethical analysis and evaluation.

I. Scope of Application

1. This Recommendation addresses ethical issues related to the domain of Artificial Intelligence to the extent that they are within UNESCO's mandate. It approaches AI ethics as a systematic normative reflection, based on a holistic, comprehensive, multicultural and evolving framework of interdependent values, principles and actions that can guide societies in dealing responsibly

with the known and unknown impacts of AI technologies on human beings, societies and the environment and ecosystems, and offers them a basis to accept or reject AI technologies. It considers ethics as a dynamic basis for the normative evaluation and guidance of AI technologies, referring to human dignity, well-being and the prevention of harm as a compass and as rooted in the ethics of science and technology.

2.   This Recommendation does not have the ambition to provide one single definition of AI, since such a definition would need to change over time, in accordance with technological developments. Rather, its ambition is to address those features of AI systems that are of central ethical relevance. Therefore, this Recommendation approaches AI systems as systems which have the capacity to process data and information in a way that resembles intelligent behaviour, and typically includes aspects of reasoning, learning, perception, prediction, planning or control. Three elements have a central place in this approach:

(a) AI systems are information-processing technologies that integrate models and algorithms that produce a capacity to learn and to perform cognitive tasks leading to outcomes such as prediction and decision-making in material and virtual environments. AI systems are designed to operate with varying degrees of autonomy by means of knowledge modelling and representation and by exploiting data and calculating correlations. AI systems may include several methods, such as but not limited to:

 (i)   machine learning, including deep learning and reinforcement learning;

(ii) machine reasoning, including planning, scheduling, knowledge representation and reasoning, search, and optimization.

AI systems can be used in cyber-physical systems, including the Internet of things, robotic systems, social robotics, and human-computer interfaces, which involve control, perception, the processing of data collected by sensors, and the operation of actuators in the environment in which AI systems work.

(b) Ethical questions regarding AI systems pertain to all stages of the AI system life cycle, understood here to range from research, design and development to deployment and use, including maintenance, operation, trade, financing, monitoring

and evaluation, validation, end-of-use, disassembly and termination. In addition, AI actors can be defined as any actor involved in at least one stage of the AI system life cycle, and can refer both to natural and legal persons, such as researchers, programmers, engineers, data scientists, end-users, business enterprises, universities and public and private entities, among others.

(c) AI systems raise new types of ethical issues that include, but are not limited to, their impact on decision-making, employment and labour, social interaction, health care, education, media, access to information, digital divide, personal data and consumer protection, environment, democracy, rule of law, security and policing, dual use, and human rights and fundamental freedoms, including freedom of expression, privacy and non-discrimination. Furthermore, new ethical challenges are created by the potential of AI algorithms to reproduce and reinforce existing biases, and thus to exacerbate already existing forms of discrimination, prejudice and stereotyping. Some of these issues are related to the capacity of AI systems to perform tasks which previously only living beings could do, and which were in some cases even limited to human beings only. These characteristics give AI systems a profound, new role in human practices and society, as well as in their relationship with the environment and ecosystems, creating a new context for children and young people to grow up in, develop an understanding of the world and themselves, critically understand media and information, and learn to make decisions. In the long term, AI systems could challenge humans' special sense of experience and agency, raising additional concerns about, inter alia, human self-understanding, social, cultural and environmental interaction, autonomy, agency, worth and dignity.

3.   This Recommendation pays specific attention to the broader ethical implications of AI systems in relation to the central domains of UNESCO: education, science, culture, and communication and information, as explored in the 2019 Preliminary Study on the Ethics of Artificial Intelligence by the UNESCO World Commission on Ethics of Scientific Knowledge and Technology (COMEST):

(a) Education, because living in digitalizing societies requires new educational practices, ethical reflection, critical thinking, responsible design practices and new skills, given the

implications for the labour market, employability and civic participation.

(b) Science, in the broadest sense and including all academic fields from the natural sciences and medical sciences to the social sciences and humanities, as AI technologies bring new research capacities and approaches, have implications for our concepts of scientific understanding and explanation, and create a new basis for decision-making.

(c) Cultural identity and diversity, as AI technologies can enrich cultural and creative industries, but can also lead to an increased concentration of supply of cultural content, data, markets and income in the hands of only a few actors, with potential negative implications for the diversity and pluralism of languages, media, cultural expressions, participation and equality.

(d) Communication and information, as AI technologies play an increasingly important role in the processing, structuring and provision of information; the issues of automated journalism and the algorithmic provision of news and moderation and curation of content on social media and search engines are just a few examples raising issues related to access to information, disinformation, misinformation, hate speech, the emergence of new forms of societal narratives, discrimination, freedom of expression, privacy and media and information literacy, among others.

4. This Recommendation is addressed to Member States, both as AI actors and as authorities responsible for developing legal and regulatory frameworks throughout the entire AI system life cycle, and for promoting business responsibility. It also provides ethical guidance to all AI actors, including the public and private sectors, by providing a basis for an ethical impact assessment of AI systems throughout their life cycle.

II. Aims and Objectives

5. This Recommendation aims to provide a basis to make AI systems work for the good of humanity, individuals, societies and the environment and ecosystems, and to prevent harm. It also aims at stimulating the peaceful use of AI systems.

6. In addition to the existing ethical frameworks regarding AI around the world, this Recommendation aims to bring a globally accepted normative instrument that focuses not only on the articulation of values and principles, but also on their practical

realization, via concrete policy recommendations, with a strong emphasis on inclusion issues of gender equality and protection of the environment and ecosystems.

7.   Because the complexity of the ethical issues surrounding AI necessitates the cooperation of multiple stakeholders across the various levels and sectors of international, regional and national communities, this Recommendation aims to enable stakeholders to take shared responsibility based on a global and intercultural dialogue.

8.   The objectives of this Recommendation are:

(a) to provide a universal framework of values, principles and actions to guide States in the formulation of their legislation, policies or other instruments regarding AI, consistent with international law;

(b) to guide the actions of individuals, groups, communities, institutions and private sector companies to ensure the embedding of ethics in all stages of the AI system life cycle;

(c) to protect, promote and respect human rights and fundamental freedoms, human dignity and equality, including gender equality; to safeguard the interests of present and future generations; to preserve the environment, biodiversity and ecosystems; and to respect cultural diversity in all stages of the AI system life cycle;

(d) to foster multi-stakeholder, multidisciplinary and pluralistic dialogue and consensus building about ethical issues relating to AI systems;

(e) to promote equitable access to developments and knowledge in the field of AI and the sharing of benefits, with particular attention to the needs and contributions of LMICs, including LDCs, LLDCs and SIDS.

III. Values and Principles

9.   The values and principles included below should be respected by all actors in the AI system life cycle, in the first place and, where needed and appropriate, be promoted through amendments to the existing and elaboration of new legislation, regulations and business guidelines. This must comply with international law, including the United Nations Charter and Member States' human rights obligations, and should be in line with internationally agreed social, political, environmental, educational,

scientific and economic sustainability objectives, such as the United Nations Sustainable Development Goals (SDGs).

10.　　Values play a powerful role as motivating ideals in shaping policy measures and legal norms. While the set of values outlined below thus inspires desirable behaviour and represents the foundations of principles, the principles unpack the values underlying them more concretely so that the values can be more easily operationalized in policy statements and actions.

11.　　While all the values and principles outlined below are desirable per se, in any practical contexts, there may be tensions between these values and principles. In any given situation, a contextual assessment will be necessary to manage potential tensions, taking into account the principle of proportionality and in compliance with human rights and fundamental freedoms. In all cases, any possible limitations on human rights and fundamental freedoms must have a lawful basis, and be reasonable, necessary and proportionate, and consistent with States' obligations under international law. To navigate such scenarios judiciously will typically require engagement with a broad range of appropriate stakeholders, making use of social dialogue, as well as ethical deliberation, due diligence and impact assessment.

12.　　The trustworthiness and integrity of the life cycle of AI systems is essential to ensure that AI technologies will work for the good of humanity, individuals, societies and the environment and ecosystems, and embody the values and principles set out in this Recommendation. People should have good reason to trust that AI systems can bring individual and shared benefits, while adequate measures are taken to mitigate risks. An essential requirement for trustworthiness is that, throughout their life cycle, AI systems are subject to thorough monitoring by the relevant stakeholders as appropriate. As trustworthiness is an outcome of the operationalization of the principles in this document, the policy actions proposed in this Recommendation are all directed at promoting trustworthiness in all stages of the AI system life cycle.

1) VALUES

Respect, protection and promotion of human rights and fundamental freedoms and human dignity

13.　　The inviolable and inherent dignity of every human constitutes the foundation for the universal, indivisible, inalienable, interdependent and interrelated system of human rights and

fundamental freedoms. Therefore, respect, protection and promotion of human dignity and rights as established by international law, including international human rights law, is essential throughout the life cycle of AI systems. Human dignity relates to the recognition of the intrinsic and equal worth of each individual human being, regardless of race, colour, descent, gender, age, language, religion, political opinion, national origin, ethnic origin, social origin, economic or social condition of birth, or disability and any other grounds.

14.   No human being or human community should be harmed or subordinated, whether physically, economically, socially, politically, culturally or mentally during any phase of the life cycle of AI systems. Throughout the life cycle of AI systems, the quality of life of human beings should be enhanced, while the definition of "quality of life" should be left open to individuals or groups, as long as there is no violation or abuse of human rights and fundamental freedoms, or the dignity of humans in terms of this definition.

15.   Persons may interact with AI systems throughout their life cycle and receive assistance from them, such as care for vulnerable people or people in vulnerable situations, including but not limited to children, older persons, persons with disabilities or the ill. Within such interactions, persons should never be objectified, nor should their dignity be otherwise undermined, or human rights and fundamental freedoms violated or abused.

16.   Human rights and fundamental freedoms must be respected, protected and promoted throughout the life cycle of AI systems. Governments, private sector, civil society, international organizations, technical communities and academia must respect human rights instruments and frameworks in their interventions in the processes surrounding the life cycle of AI systems. New technologies need to provide new means to advocate, defend and exercise human rights and not to infringe them.

Environment and ecosystem flourishing

17.   Environmental and ecosystem flourishing should be recognized, protected and promoted through the life cycle of AI systems. Furthermore, environment and ecosystems are the existential necessity for humanity and other living beings to be able to enjoy the benefits of advances in AI.

18.   All actors involved in the life cycle of AI systems must comply with applicable international law and domestic legislation, standards and practices, such as precaution, designed for

environmental and ecosystem protection and restoration, and sustainable development. They should reduce the environmental impact of AI systems, including but not limited to its carbon footprint, to ensure the minimization of climate change and environmental risk factors, and prevent the unsustainable exploitation, use and transformation of natural resources contributing to the deterioration of the environment and the degradation of ecosystems.

Ensuring diversity and inclusiveness

19.   Respect, protection and promotion of diversity and inclusiveness should be ensured throughout the life cycle of AI systems, consistent with international law, including human rights law. This may be done by promoting active participation of all individuals or groups regardless of race, colour, descent, gender, age, language, religion, political opinion, national origin, ethnic origin, social origin, economic or social condition of birth, or disability and any other grounds.

20.   The scope of lifestyle choices, beliefs, opinions, expressions or personal experiences, including the optional use of AI systems and the co-design of these architectures should not be restricted during any phase of the life cycle of AI systems.

21.   Furthermore, efforts, including international cooperation, should be made to overcome, and never take advantage of, the lack of necessary technological infrastructure, education and skills, as well as legal frameworks, particularly in LMICs, LDCs, LLDCs and SIDS, affecting communities.

Living in peaceful, just and interconnected societies

22.   AI actors should play a participative and enabling role to ensure peaceful and just societies, which is based on an interconnected future for the benefit of all, consistent with human rights and fundamental freedoms. The value of living in peaceful and just societies points to the potential of AI systems to contribute throughout their life cycle to the interconnectedness of all living creatures with each other and with the natural environment.

23.   The notion of humans being interconnected is based on the knowledge that every human belongs to a greater whole, which thrives when all its constituent parts are enabled to thrive. Living in peaceful, just and interconnected societies requires an organic, immediate, uncalculated bond of solidarity, characterized by a permanent search for peaceful relations, tending towards care for others and the natural environment in the broadest sense of the term.

24.	This value demands that peace, inclusiveness and justice, equity and interconnectedness should be promoted throughout the life cycle of AI systems, in so far as the processes of the life cycle of AI systems should not segregate, objectify or undermine freedom and autonomous decision-making as well as the safety of human beings and communities, divide and turn individuals and groups against each other, or threaten the coexistence between humans, other living beings and the natural environment.

1) PRINCIPLES

Proportionality and Do No Harm

25.	It should be recognized that AI technologies do not necessarily, per se, ensure human and environmental and ecosystem flourishing. Furthermore, none of the processes related to the AI system life cycle shall exceed what is necessary to achieve legitimate aims or objectives and should be appropriate to the context. In the event of possible occurrence of any harm to human beings, human rights and fundamental freedoms, communities and society at large or the environment and ecosystems, the implementation of procedures for risk assessment and the adoption of measures in order to preclude the occurrence of such harm should be ensured.

26.	The choice to use AI systems and which AI method to use should be justified in the following ways: (a) the AI method chosen should be appropriate and proportional to achieve a given legitimate aim; (b) the AI method chosen should not infringe upon the foundational values captured in this document, in particular, its use must not violate or abuse human rights; and (c) the AI method should be appropriate to the context and should be based on rigorous scientific foundations. In scenarios where decisions are understood to have an impact that is irreversible or difficult to reverse or may involve life and death decisions, final human determination should apply. In particular, AI systems should not be used for social scoring or mass surveillance purposes.

Safety and security

27.	Unwanted harms (safety risks), as well as vulnerabilities to attack (security risks) should be avoided and should be addressed, prevented and eliminated throughout the life cycle of AI systems to ensure human, environmental and ecosystem safety and security. Safe and secure AI will be enabled by the development of sustainable,

privacy-protective data access frameworks that foster better training and validation of AI models utilizing quality data.

Fairness and non-discrimination

28.　　AI actors should promote social justice and safeguard fairness and non-discrimination of any kind in compliance with international law. This implies an inclusive approach to ensuring that the benefits of AI technologies are available and accessible to all, taking into consideration the specific needs of different age groups, cultural systems, different language groups, persons with disabilities, girls and women, and disadvantaged, marginalized and vulnerable people or people in vulnerable situations. Member States should work to promote inclusive access for all, including local communities, to AI systems with locally relevant content and services, and with respect for multilingualism and cultural diversity. Member States should work to tackle digital divides and ensure inclusive access to and participation in the development of AI. At the national level, Member States should promote equity between rural and urban areas, and among all persons regardless of race, colour, descent, gender, age, language, religion, political opinion, national origin, ethnic origin, social origin, economic or social condition of birth, or disability and any other grounds, in terms of access to and participation in the AI system life cycle. At the international level, the most technologically advanced countries have a responsibility of solidarity with the least advanced to ensure that the benefits of AI technologies are shared such that access to and participation in the AI system life cycle for the latter contributes to a fairer world order with regard to information, communication, culture, education, research and socio-economic and political stability.

29.　　AI actors should make all reasonable efforts to minimize and avoid reinforcing or perpetuating discriminatory or biased applications and outcomes throughout the life cycle of the AI system to ensure fairness of such systems. Effective remedy should be available against discrimination and biased algorithmic determination.

30.　　Furthermore, digital and knowledge divides within and between countries need to be addressed throughout an AI system life cycle, including in terms of access and quality of access to technology and data, in accordance with relevant national, regional and international legal frameworks, as well as in terms of connectivity, knowledge and skills and meaningful participation of the affected communities, such that every person is treated equitably.

Sustainability

31.   The development of sustainable societies relies on the achievement of a complex set of objectives on a continuum of human, social, cultural, economic and environmental dimensions. The advent of AI technologies can either benefit sustainability objectives or hinder their realization, depending on how they are applied across countries with varying levels of development. The continuous assessment of the human, social, cultural, economic and environmental impact of AI technologies should therefore be carried out with full cognizance of the implications of AI technologies for sustainability as a set of constantly evolving goals across a range of dimensions, such as currently identified in the Sustainable Development Goals (SDGs) of the United Nations.

Right to Privacy, and Data Protection

32.   Privacy, a right essential to the protection of human dignity, human autonomy and human agency, must be respected, protected and promoted throughout the life cycle of AI systems. It is important that data for AI systems be collected, used, shared, archived and deleted in ways that are consistent with international law and in line with the values and principles set forth in this Recommendation, while respecting relevant national, regional and international legal frameworks.

33.   Adequate data protection frameworks and governance mechanisms should be established in a multi-stakeholder approach at the national or international level, protected by judicial systems, and ensured throughout the life cycle of AI systems. Data protection frameworks and any related mechanisms should take reference from international data protection principles and standards concerning the collection, use and disclosure of personal data and exercise of their rights by data subjects while ensuring a legitimate aim and a valid legal basis for the processing of personal data, including informed consent.

34.   Algorithmic systems require adequate privacy impact assessments, which also include societal and ethical considerations of their use and an innovative use of the privacy by design approach. AI actors need to ensure that they are accountable for the design and implementation of AI systems in such a way as to ensure that personal information is protected throughout the life cycle of the AI system.

Human oversight and determination

35.   Member States should ensure that it is always possible to attribute ethical and legal responsibility for any stage of the life cycle of AI systems, as well as in cases of remedy related to AI systems, to physical persons or to existing legal entities. Human oversight refers thus not only to individual human oversight, but to inclusive public oversight, as appropriate.

36.   It may be the case that sometimes humans would choose to rely on AI systems for reasons of efficacy, but the decision to cede control in limited contexts remains that of humans, as humans can resort to AI systems in decision-making and acting, but an AI system can never replace ultimate human responsibility and accountability. As a rule, life and death decisions should not be ceded to AI systems.

Transparency and explainability

37.   The transparency and explainability of AI systems are often essential preconditions to ensure the respect, protection and promotion of human rights, fundamental freedoms and ethical principles. Transparency is necessary for relevant national and international liability regimes to work effectively. A lack of transparency could also undermine the possibility of effectively challenging decisions based on outcomes produced by AI systems and may thereby infringe the right to a fair trial and effective remedy, and limits the areas in which these systems can be legally used.

38.   While efforts need to be made to increase transparency and explainability of AI systems, including those with extra-territorial impact, throughout their life cycle to support democratic governance, the level of transparency and explainability should always be appropriate to the context and impact, as there may be a need to balance between transparency and explainability and other principles such as privacy, safety and security. People should be fully informed when a decision is informed by or is made on the basis of AI algorithms, including when it affects their safety or human rights, and in those circumstances should have the opportunity to request explanatory information from the relevant AI actor or public sector institutions. In addition, individuals should be able to access the reasons for a decision affecting their rights and freedoms, and have the option of making submissions to a designated staff member of the private sector company or public sector institution able to review and correct the decision. AI actors should inform users when a product or service is provided directly or with the assistance of AI systems in a proper and timely manner.

39. From a socio-technical lens, greater transparency contributes to more peaceful, just, democratic and inclusive societies. It allows for public scrutiny that can decrease corruption and discrimination, and can also help detect and prevent negative impacts on human rights. Transparency aims at providing appropriate information to the respective addressees to enable their understanding and foster trust. Specific to the AI system, transparency can enable people to understand how each stage of an AI system is put in place, appropriate to the context and sensitivity of the AI system. It may also include insight into factors that affect a specific prediction or decision, and whether or not appropriate assurances (such as safety or fairness measures) are in place. In cases of serious threats of adverse human rights impacts, transparency may also require the sharing of code or datasets.

40. Explainability refers to making intelligible and providing insight into the outcome of AI systems. The explainability of AI systems also refers to the understandability of the input, output and the functioning of each algorithmic building block and how it contributes to the outcome of the systems. Thus, explainability is closely related to transparency, as outcomes and subprocesses leading to outcomes should aim to be understandable and traceable, appropriate to the context. AI actors should commit to ensuring that the algorithms developed are explainable. In the case of AI applications that impact the end user in a way that is not temporary, easily reversible or otherwise low risk, it should be ensured that the meaningful explanation is provided with any decision that resulted in the action taken in order for the outcome to be considered transparent.

41. Transparency and explainability relate closely to adequate responsibility and accountability measures, as well as to the trustworthiness of AI systems.

Responsibility and accountability

42. AI actors and Member States should respect, protect and promote human rights and fundamental freedoms, and should also promote the protection of the environment and ecosystems, assuming their respective ethical and legal responsibility, in accordance with national and international law, in particular Member States' human rights obligations, and ethical guidance throughout the life cycle of AI systems, including with respect to AI actors within their effective territory and control. The ethical responsibility and liability for the decisions and actions based in any way on an AI system should

always ultimately be attributable to AI actors corresponding to their role in the life cycle of the AI system.

43.   Appropriate oversight, impact assessment, audit and due diligence mechanisms, including whistle-blowers' protection, should be developed to ensure accountability for AI systems and their impact throughout their life cycle. Both technical and institutional designs should ensure auditability and traceability of (the working of) AI systems in particular to address any conflicts with human rights norms and standards and threats to environmental and ecosystem wellbeing.

Awareness and literacy

44.   Public awareness and understanding of AI technologies and the value of data should be promoted through open and accessible education, civic engagement, digital skills and AI ethics training, media and information literacy and training led jointly by governments, intergovernmental organizations, civil society, academia, the media, community leaders and the private sector, and considering the existing linguistic, social and cultural diversity, to ensure effective public participation so that all members of society can take informed decisions about their use of AI systems and be protected from undue influence.

45.   Learning about the impact of AI systems should include learning about, through and for human rights and fundamental freedoms, meaning that the approach and understanding of AI systems should be grounded by their impact on human rights and access to rights, as well as on the environment and ecosystems.

Multi-stakeholder and adaptive governance and collaboration

46.   International law and national sovereignty must be respected in the use of data. That means that States, complying with international law, can regulate the data generated within or passing through their territories, and take measures towards effective regulation of data, including data protection, based on respect for the right to privacy in accordance with international law and other human rights norms and standards.

47.   Participation of different stakeholders throughout the AI system life cycle is necessary for inclusive approaches to AI governance, enabling the benefits to be shared by all, and to contribute to sustainable development. Stakeholders include but are not limited to governments, intergovernmental organizations, the technical community, civil society, researchers and academia, media, education, policy-makers, private sector companies, human rights

institutions and equality bodies, anti-discrimination monitoring bodies, and groups for youth and children. The adoption of open standards and interoperability to facilitate collaboration should be in place. Measures should be adopted to take into account shifts in technologies, the emergence of new groups of stakeholders, and to allow for meaningful participation by marginalized groups, communities and individuals and, where relevant, in the case of Indigenous Peoples, respect for the self-governance of their data.

IV. Areas for Policy Action

48.   The policy actions described in the following policy areas operationalize the values and principles set out in this Recommendation. The main action is for Member States to put in place effective measures, including, for example, policy frameworks or mechanisms, and to ensure that other stakeholders, such as private sector companies, academic and research institutions, and civil society adhere to them by, among other actions, encouraging all stakeholders to develop human rights, rule of law, democracy, and ethical impact assessment and due diligence tools in line with guidance including the United Nations Guiding Principles on Business and Human Rights. The process for developing such policies or mechanisms should be inclusive of all stakeholders and should take into account the circumstances and priorities of each Member State. UNESCO can be a partner and support Member States in the development as well as monitoring and evaluation of policy mechanisms.

49.   UNESCO recognizes that Member States will be at different stages of readiness to implement this Recommendation, in terms of scientific, technological, economic, educational, legal, regulatory, infrastructural, societal, cultural and other dimensions. It is noted that "readiness" here is a dynamic status. In order to enable the effective implementation of this Recommendation, UNESCO will therefore: (1) develop a readiness assessment methodology to assist interested Member States in identifying their status at specific moments of their readiness trajectory along a continuum of dimensions; and (2) ensure support for interested Member States in terms of developing a UNESCO methodology for Ethical Impact Assessment (EIA) of AI technologies, sharing of best practices, assessment guidelines and other mechanisms and analytical work.

Policy Area 1: Ethical Impact Assessment

50.   Member States should introduce frameworks for impact assessments, such as ethical impact assessment, to identify and assess benefits, concerns and risks of AI systems, as well as appropriate risk prevention, mitigation and monitoring measures, among other assurance mechanisms. Such impact assessments should identify impacts on human rights and fundamental freedoms, in particular but not limited to the rights of marginalized and vulnerable people or people in vulnerable situations, labour rights, the environment and ecosystems and ethical and social implications, and facilitate citizen participation in line with the values and principles set forth in this Recommendation.

51.   Member States and private sector companies should develop due diligence and oversight mechanisms to identify, prevent, mitigate and account for how they address the impact of AI systems on the respect for human rights, rule of law and inclusive societies. Member States should also be able to assess the socio-economic impact of AI systems on poverty and ensure that the gap between people living in wealth and poverty, as well as the digital divide among and within countries, are not increased with the massive adoption of AI technologies at present and in the future. In order to do this, in particular, enforceable transparency protocols should be implemented, corresponding to the access to information, including information of public interest held by private entities. Member States, private sector companies and civil society should investigate the sociological and psychological effects of AI-based recommendations on humans in their decision-making autonomy. AI systems identified as potential risks to human rights should be broadly tested by AI actors, including in real-world conditions if needed, as part of the Ethical Impact Assessment, before releasing them in the market.

52.   Member States and business enterprises should implement appropriate measures to monitor all phases of an AI system life cycle, including the functioning of algorithms used for decision making, the data, as well as AI actors involved in the process, especially in public services and where direct end-user interaction is needed, as part of ethical impact assessment. Member States' human rights law obligations should form part of the ethical aspects of AI system assessments.

53.   Governments should adopt a regulatory framework that sets out a procedure, particularly for public authorities, to carry out ethical impact assessments on AI systems to predict consequences, mitigate

risks, avoid harmful consequences, facilitate citizen participation and address societal challenges. The assessment should also establish appropriate oversight mechanisms, including auditability, traceability and explainability, which enable the assessment of algorithms, data and design processes, as well as include external review of AI systems. Ethical impact assessments should be transparent and open to the public, where appropriate. Such assessments should also be multidisciplinary, multi-stakeholder, multicultural, pluralistic and inclusive. The public authorities should be required to monitor the AI systems implemented and/or deployed by those authorities by introducing appropriate mechanisms and tools.

Policy Area 2: Ethical Governance and Stewardship

54.　　Member States should ensure that AI governance mechanisms are inclusive, transparent, multidisciplinary, multilateral (this includes the possibility of mitigation and redress of harm across borders) and multi-stakeholder. In particular, governance should include aspects of anticipation, and effective protection, monitoring of impact, enforcement and redress.

55.　　Member States should ensure that harms caused through AI systems are investigated and redressed, by enacting strong enforcement mechanisms and remedial actions, to make certain that human rights and fundamental freedoms and the rule of law are respected in the digital world and in the physical world. Such mechanisms and actions should include remediation mechanisms provided by private and public sector companies. The auditability and traceability of AI systems should be promoted to this end. In addition, Member States should strengthen their institutional capacities to deliver on this commitment and should collaborate with researchers and other stakeholders to investigate, prevent and mitigate any potentially malicious uses of AI systems.

56.　　Member States are encouraged to develop national and regional AI strategies and to consider forms of soft governance such as a certification mechanism for AI systems and the mutual recognition of their certification, according to the sensitivity of the application domain and expected impact on human rights, the environment and ecosystems, and other ethical considerations set forth in this Recommendation. Such a mechanism might include different levels of audit of systems, data, and adherence to ethical guidelines and to procedural requirements in view of ethical aspects.

At the same time, such a mechanism should not hinder innovation or disadvantage small and medium enterprises or start-ups, civil society as well as research and science organizations, as a result of an excessive administrative burden. These mechanisms should also include a regular monitoring component to ensure system robustness and continued integrity and adherence to ethical guidelines over the entire life cycle of the AI system, requiring re-certification if necessary.

57.   Member States and public authorities should carry out transparent self-assessment of existing and proposed AI systems, which, in particular, should include the assessment of whether the adoption of AI is appropriate and, if so, should include further assessment to determine what the appropriate method is, as well as assessment as to whether such adoption would result in violations or abuses of Member States' human rights law obligations, and if that is the case, prohibit its use.

58.   Member States should encourage public entities, private sector companies and civil society organizations to involve different stakeholders in their AI governance and to consider adding the role of an independent AI Ethics Officer or some other mechanism to oversee ethical impact assessment, auditing and continuous monitoring efforts and ensure ethical guidance of AI systems. Member States, private sector companies and civil society organizations, with the support of UNESCO, are encouraged to create a network of independent AI Ethics Officers to give support to this process at national, regional and international levels.

59.   Member States should foster the development of, and access to, a digital ecosystem for ethical and inclusive development of AI systems at the national level, including to address gaps in access to the AI system life cycle, while contributing to international collaboration. Such an ecosystem includes, in particular, digital technologies and infrastructure, and mechanisms for sharing AI knowledge, as appropriate.

60.   Member States should establish mechanisms, in collaboration with international organizations, transnational corporations, academic institutions and civil society, to ensure the active participation of all Member States, especially LMICs, in particular LDCs, LLDCs and SIDS, in international discussions concerning AI governance. This can be through the provision of funds, ensuring equal regional participation, or any other mechanisms. Furthermore, in order to ensure the inclusiveness of AI

fora, Member States should facilitate the travel of AI actors in and out of their territory, especially from LMICs, in particular LDCs, LLDCs and SIDS, for the purpose of participating in these fora.

61.   Amendments to the existing or elaboration of new national legislation addressing AI systems must comply with Member States' human rights law obligations and promote human rights and fundamental freedoms throughout the AI system life cycle. Promotion thereof should also take the form of governance initiatives, good exemplars of collaborative practices regarding AI systems, and national and international technical and methodological guidelines as AI technologies advance. Diverse sectors, including the private sector, in their practices regarding AI systems must respect, protect and promote human rights and fundamental freedoms using existing and new instruments in combination with this Recommendation.

62.   Member States that acquire Al systems for human rights-sensitive use cases, such as law enforcement, welfare, employment, media and information providers, health care and the independent judiciary system should provide mechanisms to monitor the social and economic impact of such systems by appropriate oversight authorities, including independent data protection authorities, sectoral oversight and public bodies responsible for oversight.

63.   Member States should enhance the capacity of the judiciary to make decisions related to AI systems as per the rule of law and in line with international law and standards, including in the use of AI systems in their deliberations, while ensuring that the principle of human oversight is upheld. In case AI systems are used by the judiciary, sufficient safeguards are needed to guarantee inter alia the protection of fundamental human rights, the rule of law, judicial independence as well as the principle of human oversight, and to ensure a trustworthy, public interest-oriented and human-centric development and use of AI systems in the judiciary.

64.   Member States should ensure that governments and multilateral organizations play a leading role in ensuring the safety and security of AI systems, with multi-stakeholder participation. Specifically, Member States, international organizations and other relevant bodies should develop international standards that describe measurable, testable levels of safety and transparency, so that systems can be objectively assessed and levels of compliance determined. Furthermore, Member States and business enterprises should continuously support strategic research on potential safety and

security risks of AI technologies and should encourage research into transparency and explainability, inclusion and literacy by putting additional funding into those areas for different domains and at different levels, such as technical and natural language.

65.   Member States should implement policies to ensure that the actions of AI actors are consistent with international human rights law, standards and principles throughout the life cycle of AI systems, while taking into full consideration the current cultural and social diversities, including local customs and religious traditions, with due regard to the precedence and universality of human rights.

66.   Member States should put in place mechanisms to require AI actors to disclose and combat any kind of stereotyping in the outcomes of AI systems and data, whether by design or by negligence, and to ensure that training data sets for AI systems do not foster cultural, economic or social inequalities, prejudice, the spreading of disinformation and misinformation, and disruption of freedom of expression and access to information. Particular attention should be given to regions where the data are scarce.

67.   Member States should implement policies to promote and increase diversity and inclusiveness that reflect their populations in AI development teams and training datasets, and to ensure equal access to AI technologies and their benefits, particularly for marginalized groups, both from rural and urban zones.

68.   Member States should develop, review and adapt, as appropriate, regulatory frameworks to achieve accountability and responsibility for the content and outcomes of AI systems at the different phases of their life cycle. Member States should, where necessary, introduce liability frameworks or clarify the interpretation of existing frameworks to ensure the attribution of accountability for the outcomes and the functioning of AI systems. Furthermore, when developing regulatory frameworks, Member States should, in particular, take into account that ultimate responsibility and accountability must always lie with natural or legal persons and that AI systems should not be given legal personality themselves. To ensure this, such regulatory frameworks should be consistent with the principle of human oversight and establish a comprehensive approach focused on AI actors and the technological processes involved across the different stages of the AI system life cycle.

69.   In order to establish norms where these do not exist, or to adapt the existing legal frameworks, Member States should involve all AI actors (including, but not limited to, researchers,

representatives of civil society and law enforcement, insurers, investors, manufacturers, engineers, lawyers and users). The norms can mature into best practices, laws and regulations. Member States are further encouraged to use mechanisms such as policy prototypes and regulatory sandboxes to accelerate the development of laws, regulations and policies, including regular reviews thereof, in line with the rapid development of new technologies and ensure that laws and regulations can be tested in a safe environment before being officially adopted. Member States should support local governments in the development of local policies, regulations and laws in line with national and international legal frameworks.

70. Member States should set clear requirements for AI system transparency and explainability so as to help ensure the trustworthiness of the full AI system life cycle. Such requirements should involve the design and implementation of impact mechanisms that take into consideration the nature of application domain, intended use, target audience and feasibility of each particular AI system.

Policy Area 3: Data Policy

71. Member States should work to develop data governance strategies that ensure the continual evaluation of the quality of training data for AI systems including the adequacy of the data collection and selection processes, proper data security and protection measures, as well as feedback mechanisms to learn from mistakes and share best practices among all AI actors.

72. Member States should put in place appropriate safeguards to protect the right to privacy in accordance with international law, including addressing concerns such as surveillance. Member States should, among others, adopt or enforce legislative frameworks that provide appropriate protection, compliant with international law. Member States should strongly encourage all AI actors, including business enterprises, to follow existing international standards and, in particular, to carry out adequate privacy impact assessments, as part of ethical impact assessments, which take into account the wider socio-economic impact of the intended data processing, and to apply privacy by design in their systems. Privacy should be respected, protected and promoted throughout the life cycle of AI systems.

73. Member States should ensure that individuals retain rights over their personal data and are protected by a framework, which notably foresees: transparency; appropriate safeguards for the

processing of sensitive data; an appropriate level of data protection; effective and meaningful accountability schemes and mechanisms; the full enjoyment of the data subjects' rights and the ability to access and erase their personal data in AI systems, except for certain circumstances in compliance with international law; an appropriate level of protection in full compliance with data protection legislation where data are being used for commercial purposes such as enabling micro-targeted advertising, transferred cross-border; and an effective independent oversight as part of a data governance mechanism which keeps individuals in control of their personal data and fosters the benefits of a free flow of information internationally, including access to data.

74.   Member States should establish their data policies or equivalent frameworks, or reinforce existing ones, to ensure full security for personal data and sensitive data, which, if disclosed, may cause exceptional damage, injury or hardship to individuals. Examples include data relating to offences, criminal proceedings and convictions, and related security measures; biometric, genetic and health data; and -personal data such as that relating to race, colour, descent, gender, age, language, religion, political opinion, national origin, ethnic origin, social origin, economic or social condition of birth, or disability and any other characteristics.

75.   Member States should promote open data. In this regard, Member States should consider reviewing their policies and regulatory frameworks, including on access to information and open government to reflect AI-specific requirements and promoting mechanisms, such as open repositories for publicly funded or publicly held data and source code and data trusts, to support the safe, fair, legal and ethical sharing of data, among others.

76.   Member States should promote and facilitate the use of quality and robust datasets for training, development and use of AI systems, and exercise vigilance in overseeing their collection and use. This could, if possible and feasible, include investing in the creation of gold standard datasets, including open and trustworthy datasets, which are diverse, constructed on a valid legal basis, including consent of data subjects, when required by law. Standards for annotating datasets should be encouraged, including disaggregating data on gender and other bases, so it can easily be determined how a dataset is gathered and what properties it has.

77.   Member States, as also suggested in the report of the United Nations Secretary-General's High-level Panel on Digital

Cooperation, with the support of the United Nations and UNESCO, should adopt a digital commons approach to data where appropriate, increase interoperability of tools and datasets and interfaces of systems hosting data, and encourage private sector companies to share the data they collect with all stakeholders, as appropriate, for research, innovation or public benefits. They should also promote public and private efforts to create collaborative platforms to share quality data in trusted and secured data spaces.

Policy Area 4: Development and International Cooperation

78. Member States and transnational corporations should prioritize AI ethics by including discussions of AI-related ethical issues into relevant international, intergovernmental and multistakeholder fora.

79. Member States should ensure that the use of AI in areas of development such as education, science, culture, communication and information, health care, agriculture and food supply, environment, natural resource and infrastructure management, economic planning and growth, among others, adheres to the values and principles set forth in this Recommendation.

80. Member States should work through international organizations to provide platforms for international cooperation on AI for development, including by contributing expertise, funding, data, domain knowledge, infrastructure, and facilitating multi-stakeholder collaboration to tackle challenging development problems, especially for LMICs, in particular LDCs, LLDCs and SIDS.

81. Member States should work to promote international collaboration on AI research and innovation, including research and innovation centres and networks that promote greater participation and leadership of researchers from LMICs and other countries, including LDCs, LLDCs and SIDS.

82. Member States should promote AI ethics research by engaging international organizations and research institutions, as well as transnational corporations, that can be a basis for the ethical use of AI systems by public and private entities, including research into the applicability of specific ethical frameworks in specific cultures and contexts, and the possibilities to develop technologically feasible solutions in line with these frameworks.

83. Member States should encourage international cooperation and collaboration in the field of AI to bridge geo-technological lines.

Technological exchanges and consultations should take place between Member States and their populations, between the public and private sectors, and between and among the most and least technologically advanced countries in full respect of international law.

Policy Area 5: Environment and Ecosystems

84.   Member States and business enterprises should assess the direct and indirect environmental impact throughout the AI system life cycle, including, but not limited to, its carbon footprint, energy consumption and the environmental impact of raw material extraction for supporting the manufacturing of AI technologies, and reduce the environmental impact of AI systems and data infrastructures. Member States should ensure compliance of all AI actors with environmental law, policies and practices.

85.   Member States should introduce incentives, when needed and appropriate, to ensure the development and adoption of rights-based and ethical AI-powered solutions for disaster risk resilience; the monitoring, protection and regeneration of the environment and ecosystems; and the preservation of the planet. These AI systems should involve the participation of local and indigenous communities throughout the life cycle of AI systems and should support circular economy type approaches and sustainable consumption and production patterns. Some examples include using AI systems, when needed and appropriate, to:

   (a) Support the protection, monitoring and management of natural resources.
   (b) Support the prediction, prevention, control and mitigation of climate-related problems.
   (c) Support a more efficient and sustainable food ecosystem.
       (d) Support the acceleration of access to and mass adoption of sustainable energy.
       (e) Enable and promote the mainstreaming of sustainable infrastructure, sustainable business models and sustainable finance for sustainable development.
       (f) Detect pollutants or predict levels of pollution and thus help relevant stakeholders identify, plan and put in place targeted interventions to prevent and reduce pollution and exposure.

86.   When choosing AI methods, given the potential data-intensive or resource-intensive character of some of them and the respective impact on the environment, Member States should ensure that AI actors, in line with the principle of proportionality, favour

data, energy and resource efficient AI methods. Requirements should be developed to ensure that appropriate evidence is available to show that an AI application will have the intended effect, or that safeguards accompanying an AI application can support the justification for its use. If this cannot be done, the precautionary principle must be favoured, and in instances where there are disproportionate negative impacts on the environment, AI should not be used.

Policy Area 6: Gender

87.   Member States should ensure that the potential for digital technologies and artificial intelligence to contribute to achieving gender equality is fully maximized, and must ensure that the human rights and fundamental freedoms of girls and women, and their safety and integrity are not violated at any stage of the AI system life cycle. Moreover, Ethical Impact Assessment should include a transversal gender perspective.

88.   Member States should have dedicated funds from their public budgets linked to financing gender-responsive schemes, ensure that national digital policies include a gender action plan, and develop relevant policies, for example, on labour education, targeted at supporting girls and women to make sure they are not left out of the digital economy powered by AI. Special investment in providing targeted programmes and gender-specific language, to increase the opportunities of girls' and women's participation in science, technology, engineering, and mathematics (STEM), including information and communication technologies (ICT) disciplines, preparedness, employability, equal career development and professional growth of girls and women, should be considered and implemented.

89.   Member States should ensure that the potential of AI systems to advance the achievement of gender equality is realized. They should ensure that these technologies do not exacerbate the already wide gender gaps existing in several fields in the analogue world, and instead eliminate those gaps. These gaps include: the gender wage gap; the unequal representation in certain professions and activities; the lack of representation at top management positions, boards of directors, or research teams in the AI field; the education gap; the digital and AI access, adoption, usage and affordability gap; and the unequal distribution of unpaid work and of the caring responsibilities in our societies.

90.   Member States should ensure that gender stereotyping and discriminatory biases are not translated into AI systems, and instead identify and proactively redress these. Efforts are necessary to avoid the compounding negative effect of technological divides in achieving gender equality and avoiding violence such as harassment, bullying or trafficking of girls and women and under-represented groups, including in the online domain.

91.   Member States should encourage female entrepreneurship, participation and engagement in all stages of an AI system life cycle by offering and promoting economic, regulatory incentives, among other incentives and support schemes, as well as policies that aim at a balanced gender participation in AI research in academia, gender representation on digital and AI companies' top management positions, boards of directors and research teams. Member States should ensure that public funds (for innovation, research and technologies) are channelled to inclusive programmes and companies, with clear gender representation, and that private funds are similarly encouraged through affirmative action principles. Policies on harassment-free environments should be developed and enforced, together with the encouragement of the transfer of best practices on how to promote diversity throughout the AI system life cycle.

92.   Member States should promote gender diversity in AI research in academia and industry by offering incentives to girls and women to enter the field, putting in place mechanisms to fight gender stereotyping and harassment within the AI research community, and encouraging academic and private entities to share best practices on how to enhance gender diversity.

93.   UNESCO can help form a repository of best practices for incentivizing the participation of girls, women and under-represented groups in all stages of the AI system life cycle.

Policy Area 7: Culture

94.   Member States are encouraged to incorporate AI systems, where appropriate, in the preservation, enrichment, understanding, promotion, management and accessibility of tangible, documentary and intangible cultural heritage, including endangered languages as well as indigenous languages and knowledges, for example by introducing or updating educational programmes related to the application of AI systems in these areas, where appropriate, and by ensuring a participatory approach, targeted at institutions and the public.

95.   Member States are encouraged to examine and address the cultural impact of AI systems, especially natural language processing (NLP) applications such as automated translation and voice assistants, on the nuances of human language and expression. Such assessments should provide input for the design and implementation of strategies that maximize the benefits from these systems by bridging cultural gaps and increasing human understanding, as well as addressing the negative implications such as the reduction of use, which could lead to the disappearance of endangered languages, local dialects, and tonal and cultural variations associated with human language and expression.

96.   Member States should promote AI education and digital training for artists and creative professionals to assess the suitability of AI technologies for use in their profession, and contribute to the design and implementation of suitable AI technologies, as AI technologies are being used to create, produce, distribute, broadcast and consume a variety of cultural goods and services, bearing in mind the importance of preserving cultural heritage, diversity and artistic freedom.

97.   Member States should promote awareness and evaluation of AI tools among local cultural industries and small and medium enterprises working in the field of culture, to avoid the risk of concentration in the cultural market.

98.   Member States should engage technology companies and other stakeholders to promote a diverse supply of and plural access to cultural expressions, and in particular to ensure that algorithmic recommendation enhances the visibility and discoverability of local content.

99.   Member States should foster new research at the intersection between AI and intellectual property (IP), for example to determine whether or how to protect with IP rights the works created by means of Al technologies. Member States should also assess how AI technologies are affecting the rights or interests of IP owners, whose works are used to research, develop, train or implement AI applications.

100.   Member States should encourage museums, galleries, libraries and archives at the national level to use AI systems to highlight their collections and enhance their libraries, databases and knowledge base, while also providing access to their users.

Policy Area 8: Education and Research

101.   Member States should work with international organizations, educational institutions and private and non-governmental entities to provide adequate AI literacy education to the public on all levels in all countries in order to empower people and reduce the digital divides and digital access inequalities resulting from the wide adoption of AI systems.

102.   Member States should promote the acquisition of "prerequisite skills" for AI education, such as basic literacy, numeracy, coding and digital skills, and media and information literacy, as well as critical and creative thinking, teamwork, communication, socio-emotional and AI ethics skills, especially in countries and in regions or areas within countries where there are notable gaps in the education of these skills.

103.   Member States should promote general awareness programmes about AI developments, including on data and the opportunities and challenges brought about by AI technologies, the impact of AI systems on human rights and their implications, including children's rights. These programmes should be accessible to non-technical as well as technical groups.

104.   Member States should encourage research initiatives on the responsible and ethical use of AI technologies in teaching, teacher training and e-learning, among other issues, to enhance opportunities and mitigate the challenges and risks involved in this area. The initiatives should be accompanied by an adequate assessment of the quality of education and impact on students and teachers of the use of AI technologies. Member States should also ensure that AI technologies empower students and teachers and enhance their experience, bearing in mind that relational and social aspects and the value of traditional forms of education are vital in teacher-student and student-student relationships and should be considered when discussing the adoption of AI technologies in education. AI systems used in learning should be subject to strict requirements when it comes to the monitoring, assessment of abilities, or prediction of the learners' behaviours. AI should support the learning process without reducing cognitive abilities and without extracting sensitive information, in compliance with relevant personal data protection standards. The data handed over to acquire knowledge collected during the learner's interactions with the AI system must not be subject to misuse, misappropriation or criminal exploitation, including for commercial purposes.

105.   Member States should promote the participation and leadership of girls and women, diverse ethnicities and cultures, persons with disabilities, marginalized and vulnerable people or people in vulnerable situations, minorities and all persons not enjoying the full benefits of digital inclusion, in AI education programmes at all levels, as well as the monitoring and sharing of best practices in this regard with other Member States.

106.   Member States should develop, in accordance with their national education programmes and traditions, AI ethics curricula for all levels, and promote cross-collaboration between AI technical skills education and humanistic, ethical and social aspects of AI education. Online courses and digital resources of AI ethics education should be developed in local languages, including indigenous languages, and take into account the diversity of environments, especially ensuring accessibility of formats for persons with disabilities.

107.   Member States should promote and support AI research, notably AI ethics research, including for example through investing in such research or by creating incentives for the public and private sectors to invest in this area, recognizing that research contributes significantly to the further development and improvement of AI technologies with a view to promoting international law and the values and principles set forth in this Recommendation. Member States should also publicly promote the best practices of, and cooperation with, researchers and companies who develop AI in an ethical manner.

108.   Member States should ensure that AI researchers are trained in research ethics and require them to include ethical considerations in their designs, products and publications, especially in the analyses of the datasets they use, how they are annotated, and the quality and scope of the results with possible applications.

109.   Member States should encourage private sector companies to facilitate the access of the scientific community to their data for research, especially in LMICs, in particular LDCs, LLDCs and SIDS. This access should conform to relevant privacy and data protection standards.

110.   To ensure a critical evaluation of AI research and proper monitoring of potential misuses or adverse effects, Member States should ensure that any future developments with regards to AI technologies should be based on rigorous and independent scientific research, and promote interdisciplinary AI research by including

disciplines other than science, technology, engineering and mathematics (STEM), such as cultural studies, education, ethics, international relations, law, linguistics, philosophy, political science, sociology and psychology.

111.   Recognizing that AI technologies present great opportunities to help advance scientific knowledge and practice, especially in traditionally model-driven disciplines, Member States should encourage scientific communities to be aware of the benefits, limits and risks of their use; this includes attempting to ensure that conclusions drawn from data-driven approaches, models and treatments are robust and sound. Furthermore, Member States should welcome and support the role of the scientific community in contributing to policy and in cultivating awareness of the strengths and weaknesses of AI technologies.

Policy Area 9: Communication and Information

112.   Member States should use AI systems to improve access to information and knowledge. This can include support to researchers, academia, journalists, the general public and developers, to enhance freedom of expression, academic and scientific freedoms, access to information, and increased proactive disclosure of official data and information.

113.   Member States should ensure that AI actors respect and promote freedom of expression as well as access to information with regard to automated content generation, moderation and curation. Appropriate frameworks, including regulation, should enable transparency of online communication and information operators and ensure users have access to a diversity of viewpoints, as well as processes for prompt notification to the users on the reasons for removal or other treatment of content, and appeal mechanisms that allow users to seek redress.

114.   Member States should invest in and promote digital and media and information literacy skills to strengthen critical thinking and competencies needed to understand the use and implication of AI systems, in order to mitigate and counter disinformation, misinformation and hate speech. A better understanding and evaluation of both the positive and potentially harmful effects of recommender systems should be part of those efforts.

115.   Member States should create enabling environments for media to have the rights and resources to effectively report on the benefits and harms of AI systems, and also encourage media to make ethical use of AI systems in their operations

Policy Area 10: Economy and Labour

116.   Member States should assess and address the impact of AI systems on labour markets and its implications for education requirements, in all countries and with special emphasis on countries where the economy is labour-intensive. This can include the introduction of a wider range of "core" and interdisciplinary skills at all education levels to provide current workers and new generations a fair chance of finding jobs in a rapidly changing market, and to ensure their awareness of the ethical aspects of AI systems. Skills such as "learning how to learn", communication, critical thinking, teamwork, empathy, and the ability to transfer one's knowledge across domains, should be taught alongside specialist, technical skills, as well as low-skilled tasks. Being transparent about what skills are in demand and updating curricula around these are key.

117.   Member States should support collaboration agreements among governments, academic institutions, vocational education and training institutions, industry, workers' organizations and civil society to bridge the gap of skillset requirements to align training programmes and strategies with the implications of the future of work and the needs of industry, including small and medium enterprises. Project-based teaching and learning approaches for AI should be promoted, allowing for partnerships between public institutions, private sector companies, universities and research centres.

118.   Member States should work with private sector companies, civil society organizations and other stakeholders, including workers and unions to ensure a fair transition for at-risk employees. This includes putting in place upskilling and reskilling programmes, finding effective mechanisms of retaining employees during those transition periods, and exploring "safety net" programmes for those who cannot be retrained. Member States should develop and implement programmes to research and address the challenges identified that could include upskilling and reskilling, enhanced social protection, proactive industry policies and interventions, tax benefits, new taxation forms, among others. Member States should ensure that there is sufficient public funding to support these programmes. Relevant regulations, such as tax regimes, should be carefully examined and changed if needed to counteract the consequences of unemployment caused by AI-based automation.

119.   Member States should encourage and support researchers to analyse the impact of AI systems on the local labour environment in order to anticipate future trends and challenges. These studies should

have an interdisciplinary approach and investigate the impact of AI systems on economic, social and geographic sectors, as well as on human-robot interactions and human-human relationships, in order to advise on reskilling and redeployment best practices.

120.   Member States should take appropriate steps to ensure competitive markets and consumer protection, considering possible measures and mechanisms at national, regional and international levels, to prevent abuse of dominant market positions, including by monopolies, in relation to AI systems throughout their life cycle, whether these are data, research, technology, or market. Member States should prevent the resulting inequalities, assess relevant markets and promote competitive markets. Due consideration should be given to LMICs, in particular LDCs, LLDCs and SIDS, which are more exposed and vulnerable to the possibility of abuses of market dominance as a result of a lack of infrastructure, human capacity and regulations, among other factors. AI actors developing AI systems in countries which have established or adopted ethical standards on AI should respect these standards when exporting these products, developing or applying their AI systems in countries where such standards may not exist, while respecting applicable international law and domestic legislation, standards and practices of these countries.

Policy Area 11: Health and Social Wellbeing

121.   Member States should endeavour to employ effective AI systems for improving human health and protecting the right to life, including mitigating disease outbreaks, while building and maintaining international solidarity to tackle global health risks and uncertainties, and ensure that their deployment of AI systems in health care be consistent with international law and their human rights law obligations. Member States should ensure that actors involved in health care AI systems take into consideration the importance of a patient's relationships with their family and with health care staff.

122.   Member States should ensure that the development and deployment of AI systems related to health in general and mental health in particular, paying due attention to children and youth, is regulated to the effect that they are safe, effective, efficient, scientifically and medically proven and enable evidence-based innovation and medical progress. Moreover, in the related area of digital health interventions, Member States are strongly encouraged to actively involve patients and their representatives in all relevant steps of the development of the system.

123. Member States should pay particular attention in regulating prediction, detection and treatment solutions for health care in AI applications by:

(a) ensuring oversight to minimize and mitigate bias;

(b) ensuring that the professional, the patient, caregiver or service user is included as a "domain expert" in the team in all relevant steps when developing the algorithms;

(c) paying due attention to privacy because of the potential need for being medically monitored and ensuring that all relevant national and international data protection requirements are met;

(d) ensuring effective mechanisms so that those whose personal data is being analysed are aware of and provide informed consent for the use and analysis of their data, without preventing access to health care;

(e) ensuring the human care and final decision of diagnosis and treatment are taken always by humans while acknowledging that AI systems can also assist in their work;

(f) ensuring, where necessary, the review of AI systems by an ethical research committee prior to clinical use.

124. Member States should establish research on the effects and regulation of potential harms to mental health related to AI systems, such as higher degrees of depression, anxiety, social isolation, developing addiction, trafficking, radicalization and misinformation, among others.

125. Member States should develop guidelines for human-robot interactions and their impact on human-human relationships, based on research and directed at the future development of robots, and with special attention to the mental and physical health of human beings. Particular attention should be given to the use of robots in health care and the care for older persons and persons with disabilities, in education, and robots for use by children, toy robots, chatbots and companion robots for children and adults. Furthermore, assistance of AI technologies should be applied to increase the safety and ergonomic use of robots, including in a human-robot working environment. Special attention should be paid to the possibility of using AI to manipulate and abuse human cognitive biases.

126. Member States should ensure that human-robot interactions comply with the same values and principles that apply to any other

AI systems, including human rights and fundamental freedoms, the promotion of diversity, and the protection of vulnerable people or people in vulnerable situations. Ethical questions related to AI-powered systems for neuro technologies and brain-computer interfaces should be considered in order to preserve human dignity and autonomy.

127. Member States should ensure that users can easily identify whether they are interacting with a living being, or with an AI system imitating human or animal characteristics, and can effectively refuse such interaction and request human intervention.

128. Member States should implement policies to raise awareness about the anthropomorphization of AI technologies and technologies that recognize and mimic human emotions, including in the language used to mention them, and assess the manifestations, ethical implications and possible limitations of such anthropomorphization, in particular in the context of robot-human interaction and especially when children are involved.

129. Member States should encourage and promote collaborative research into the effects of longterm interaction of people with AI systems, paying particular attention to the psychological and cognitive impact that these systems can have on children and young people. This should be done using multiple norms, principles, protocols, disciplinary approaches, and assessment of the modification of behaviours and habits, as well as careful evaluation of the downstream cultural and societal impacts. Furthermore, Member States should encourage research on the effect of AI technologies on health system performance and health outcomes.

130. Member States, as well as all stakeholders, should put in place mechanisms to meaningfully engage children and young people in conversations, debates and decision-making with regard to the impact of AI systems on their lives and futures.

V. Monitoring and Evaluation

131. Member States should, according to their specific conditions, governing structures and constitutional provisions, credibly and transparently monitor and evaluate policies, programmes and mechanisms related to ethics of AI, using a combination of quantitative and qualitative approaches. To support Member States, UNESCO can contribute by:

> (a) developing a UNESCO methodology for Ethical Impact Assessment (EIA) of AI technologies based on rigorous scientific research and grounded in international human rights

law, guidance for its implementation in all stages of the AI system life cycle, and capacity-building materials to support Member States' efforts to train government officials, policy-makers and other relevant AI actors on EIA methodology;

(b) developing a UNESCO readiness assessment methodology to assist Member States in identifying their status at specific moments of their readiness trajectory along a continuum of dimensions;

(c) developing a UNESCO methodology to evaluate ex ante and ex post the effectiveness and efficiency of the policies for AI ethics and incentives against defined objectives;

(d) strengthening the research- and evidence-based analysis of and reporting on policies regarding AI ethics;

(e) collecting and disseminating progress, innovations, research reports, scientific publications, data and statistics regarding policies for AI ethics, including through existing initiatives, to support sharing best practices and mutual learning, and to advance the implementation of this Recommendation.

132.   Processes for monitoring and evaluation should ensure broad participation of all stakeholders, including, but not limited to, vulnerable people or people in vulnerable situations. Social, cultural and gender diversity should be ensured, with a view to improving learning processes and strengthening the connections between findings, decision-making, transparency and accountability for results.

133.   In the interests of promoting best policies and practices related to ethics of AI, appropriate tools and indicators should be developed for assessing the effectiveness and efficiency thereof against agreed standards, priorities and targets, including specific targets for persons belonging to disadvantaged, marginalized populations, and vulnerable people or people in vulnerable situations, as well as the impact of AI systems at individual and societal levels. The monitoring and assessment of the impact of AI systems and related AI ethics policies and practices should be carried out continuously in a systematic way proportionate to the relevant risks. This should be based on internationally agreed frameworks and involve evaluations of private and public institutions, providers and programmes, including self-evaluations, as well as tracer studies and the development of sets of indicators. Data collection and processing should be conducted in accordance with international law, national

legislation on data protection and data privacy, and the values and principles outlined in this Recommendation.

134.   In particular, Member States may wish to consider possible mechanisms for monitoring and evaluation, such as an ethics commission, AI ethics observatory, repository covering human rights-compliant and ethical development of AI systems, or contributions to existing initiatives by addressing adherence to ethical principles across UNESCO's areas of competence, an experience-sharing mechanism, AI regulatory sandboxes, and an assessment guide for all AI actors to evaluate their adherence to policy recommendations mentioned in this document.

VI. Utilization and Exploitation of the Present Recommendation

135.   Member States and all other stakeholders as identified in this Recommendation should respect, promote and protect the ethical values, principles and standards regarding AI that are identified in this Recommendation, and should take all feasible steps to give effect to its policy recommendations.

136.   Member States should strive to extend and complement their own action in respect of this Recommendation, by cooperating with all relevant national and international governmental and non-governmental organizations, as well as transnational corporations and scientific organizations, whose activities fall within the scope and objectives of this Recommendation. The development of a UNESCO Ethical Impact Assessment methodology and the establishment of national commissions for the ethics of AI can be important instruments for this.

VII. Promotion of the Present Recommendation

137.   UNESCO has the vocation to be the principal United Nations agency to promote and disseminate this Recommendation, and accordingly will work in collaboration with other relevant United Nations entities, while respecting their mandate and avoiding duplication of work.

138.   UNESCO, including its bodies, such as the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST), the International Bioethics Committee (IBC) and the Intergovernmental Bioethics Committee (IGBC), will also work in collaboration with other international, regional and sub-regional governmental and non-governmental organizations.

139.   Even though, within UNESCO, the mandate to promote and protect   falls   within   the   authority   of   governments   and

intergovernmental bodies, civil society will be an important actor to advocate for the public sector's interests and therefore UNESCO needs to ensure and promote its legitimacy.

VIII. Final Provisions

140.   This Recommendation needs to be understood as a whole, and the foundational values and principles are to be understood as complementary and interrelated.

141.   Nothing in this Recommendation may be interpreted as replacing, altering or otherwise prejudicing States' obligations or rights under international law, or as approval for any State, other political, economic or social actor, group or person to engage in any activity or perform any act contrary to human rights, fundamental freedoms, human dignity and concern for the environment and ecosystems, both living and non-living.

The Center for AI and Digital Policy

The **Center for AI and Digital Policy** aims to promote *a better society, more fair, more just —a world where technology promotes broad social inclusion based on fundamental rights, democratic institutions, and the rule of law.* The **Center** advises national governments and international organizations on AI policies and practices; publishes commentaries on AI policy; publishes annually *Artificial Intelligence and Democratic Values*; organizes educational events with AI policy experts; and supports AI initiatives, projects, and campaigns that safeguard rule of law, democratic institutions, and fundamental rights. The **Center** also promotes the Universal Guidelines for AI; monitors implementation of the OECD AI Principles and other AI policy frameworks; and support the establishment of new legal frameworks for AI that safeguard the rule of law, democratic institutions, and fundamental rights. More information about the Center is available at CAIDP.ORG.

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About this Report

Artificial Intelligence and Democratic Values Index – The essential companion to AI policy practitioners, academics, and civil society.

Reflecting the collaborative work of more than 200 AI policy experts around the world, *AI and Democratic Values* is the first comprehensive survey of national AI policies and practices. The report sets out state-of-the-art analysis of 75 counties worldwide, based on a rigorous and transparent methodology. *AI and Democratic Values* provides an up-to-date review of the AI global and regional policy landscape, as well as changes to national AI strategies and current controversies surrounding e.g., social scoring, facial recognition or lethal autonomous weapons. *AI and Democratic Values* also features the primary international legal instruments for AI policy, including the OECD AI Principles, the resolutions of the Global Privacy Assembly concerning AI, and the new UNESCO Recommendation on AI Ethics. Published in the PDF format, *AI and Democratic Values* offers easy and open access to more than 1,000 policy documents in the field of AI policy.

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