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Who would destroy the world? Omnicidal agents and related phenomena



Phil Torres

Project for Future Human Flourishing, 849 South 7th St., Philadelphia, PA 19147, United States

ABSTRACT

The capacity for small groups and even single individuals to wreak unprecedented havoc on civilization is growing as a result of dual-use emerging technologies. This means that scholars should be increasingly concerned about individuals who express omnicidal, mass genocidal, anti-civilizational, or apocalyptic beliefs/desires. The present article offers a comprehensive and systematic survey of actual individuals who have harbored a death wish for humanity or destruction wish for civilization. This paper thus provides a strong foundation for future research on "agential risks" and related issues. It could also serve as a helpful resource for counterterrorism experts and global risk scholars who wish to better understand our evolving threat environment.

1. Introduction

The question, "Who would willingly destroy the world if only they were able to?" does not appear urgent because the "able" variable of the "able and willing" equation is currently satisfied by only a small handful of political and military leaders at the helm of nuclear states. That is to say, very few people in the contemporary world have the capacity to (more or less) unilaterally bring about an "existential risk," or a disaster causing either "the premature extinction of Earth-originating intelligent life or the permanent and drastic destruction of its potential for desirable future development" (Bostrom, 2013). But this situation is rapidly changing as a result of dual-use emerging technologies like CRISPR/Cas-9, base editing, digital-to-biological converters, nanotechnology, drones (e.g., "slaughterbots" 1), SILEX (i.e., separation of uranium isotopes by laser excitation), and so on. These technologies are not only enabling humanity to manipulate and rearrange the physical world, for better or worse, in unprecedented ways, but placing this power in the hands of more and more states, groups, and even lone wolves. As Wittes and Blum (2015) put this point,

in our modern age... new technologies are able to generate and channel mass empowerment, allowing small groups and individuals to challenge states and other institutions of traditional authority in ways that used to be the province only of other states. They are growing increasingly cheap and available. They defy distance and other physical obstacles. And, ultimately, they create the world of many-to-many threats, a world in which every individual, group, or state has to regard every other individual, group, or state as at least a potential security threat.

At the extreme, the security threat posed by the democratization of

science and technology could endanger the very survival of Homo sapiens (Torres, 2017a, forthcoming). As numerous scholars have pointed out, it could take only a single future person with access to a single "weapon of total destruction" (WTD) to initiate a catastrophe with existential repercussions (see Rees, 2003). This is worrisome because as John Sotos (2017) and I (Torres, 2017a, 2018) conclude in separate publications, the probability of any given individual pressing a "doomsday button" does not need to be very high per century for an existential catastrophe to be more or less certain. In fact, this leads Sotos to hypothesize that a Great Filter lies between our current stage of technological development and the next, at which our civilization would become spacefaring and intergalactically communicable (Sotos, 2017; see also Hanson, 1998). The point is that emerging technologies are satisfying the "able" variable for a rapidly growing number of agents, and this fact is what makes the question of "Who would be willing to destroy the world?" increasingly important to answer.

In a previous article, I offer a systematic analysis of the various *types* of "agential risks," which I define as "the risks posed by any agent who could initiate an existential catastrophe in the presence of sufficiently powerful dual-use technologies" (Torres, 2017b). The result is the following six-part typology: (1) *Apocalyptic terrorists*, i.e., religious extremists who believe that the world must be destroyed to be saved. (2) *Misguided moral actors*, e.g., radical negative utilitarians who advocate annihilation to eliminate suffering. (3) *Ecoterrorists*, e.g., deep ecology extremists who believe that the biosphere would be better off without *Homo sapiens*. (4) *Idiosyncratic actors*, e.g., rampage shooters who wish to kill as many people as possible before dying. (5) *Value-misaligned machine superintelligence*, i.e., a hardware-based agent whose value system is sufficiently misaligned with ours to result in human

E-mail address: philosophytorres@gmail.com.

¹ See SAW, 2017 for details.

extinction. (6) *Belligerent extraterrestrials*, i.e., alien beings capable of destroying Earth-originating intelligent life.²

In contrast to the abstract approach of previous work, the present paper aims to offer a more concrete account of agential risk tokens, or actual individuals who almost certainly would have pushed a doomsday button if one had been placed or positioned within finger's reach. The primary aim of this paper is twofold: first, it is crucial, I believe, for scholars to understand real-world cases of agents who harbored omnicidal, mass genocidal, anti-civilizational, or apocalyptic worldviews. If we wish to avoid an existential catastrophe in the coming centuries, we must study the various properties not just of emerging technologies but of the potential users who might exploit such technologies for existentially harmful ends. This requires a careful examination of how the beliefs/desires of different token agents evolved over time; how those agents came to accept their dangerous worldviews in the first place; how those worldviews can be most effectively neutralized; the extent to which different agents could gain access to world-destroying technologies; which environmental factors can modulate the probability of radicalization or an attack; and so on. The present paper does not attempt to answer all of these questions, but it does strive to establish a robust point-of-departure for future research on this increasingly important topic, which has received very little scholarly attention to date.

Second, this paper offers a rejoinder to those who might be skeptical of the existence of omnicidal and related agents. For example, consider the AI theorist Eliezer Yudkowsky's (2008) statement that

all else being equal, not many people would prefer to destroy the world. Even faceless corporations, meddling governments, reckless scientists, and other agents of doom, require a world in which to achieve their goals of profit, order, tenure, and other villainies. If our extinction proceeds slowly enough to allow a moment of horrified realization, the doers of the deed will likely be quite taken aback on realizing that they have actually destroyed the world. Therefore I suggest that if the Earth is destroyed, it will probably be by mistake.

There are two claims to untangle here. The first concerns the *ratio* of (i) actors who might destroy the world on accident ("error") to (ii) actors who would destroy the world on purpose ("terror").³ On this point I would mostly agree that the overwhelming majority of human beings would not "prefer to destroy the world." The second concerns the existence of many, or any, "agents of doom" in the world who would intentionally blow up the planet. On this point I would argue that the absolute count of agents who would *not* be "taken aback" by a "horrified realization" that they had successfully destroyed the world is quite large. This does not answer the question of whether the earth will probably be destroyed by mistake, but it does suggest that the statement "not many people would prefer to destroy the world" is wrong, that is, if understood as a claim about the absolute size of the demographic of token agential risks.

The next section offers a rather detailed look at the development, ideologies, goals, capabilities, and violent actions of various individuals who instantiate one of the first four agential risk types listed above. The penultimate section then examines a few additional issues that future scholarship ought to focus on.

2. Token agential risks

2.1. Apocalyptic terrorists

With the more theoretical issues of Section 1 out of the way, consider first a few token agents motivated by "active apocalyptic" ideologies:

(i) Shoko Asahara. Born almost completely blind, Asahara was the leader of Aum Shinrikyo, a Japanese doomsday cult that is most infamous for perpetrating the 1995 Tokyo subway sarin attack. The theological system that Asahara devised was a highly syncretistic amalgam of Tibetan (Vajrayana) Buddhism, Shiva worship, Hindu yoga, Taoism, New Age, and health food movements, as well as eschatological/prophetic elements borrowed from Nostradamus and the Book of Revelation. Followers of Asahara, who were largely well-educated people with academic backgrounds in fields like physics and engineering, he was "the Good, the god of light." They believed him to be so immaculate that some paid \$1000 to drink his bathwater and \$10,000 to drink his blood, which they believed "had a unique DNA." Furthermore, Aum tolerated no dissent, the result being that "defectors were routinely kidnapped, tortured, imprisoned in cargo crates, subjected to electro shock, drugged in the Astral Hospital or killed outright." The group also owned a large number of "large-scale facilities" including: "secret laboratories, a Clear Stream Temple that manufactured sarin gas, an Astral Hospital involved in punishing and murdering dissident members and numerous commercial enterprises, including computer manufacture and sales, a fitness club, a baby-sitting and dating service, real estate businesses, travel agencies, noodle shops, and a publishing house that produced voluminous amounts of media." They also acquired a sheep ranch in Australia, which the group used to test "nerve gas on animals and/or also tried to prepare a haven from nuclear war" (Flannery, 2016).

Asahara's apocalyptic ideology changed over time from a "passive" to an "active" mode. He first embraced the notion that there will be "a dualistic battle between ultimate Good and Evil," predicting that Armageddon, or World War III, would occur in 1999. The aim of Aum was to prepare the world for this cosmic event by spreading salvation to all through "teaching practices they believed would aid people in reducing negative karma for a better rebirth." Beginning in the late 1980s, Asahara started shifting his emphasis from saving others to merely saving members of his group, who he believed "would be the sole survivors of a nuclear attack" during which the US will destroy Japan (Flannery, 2016). By 1993 or 1994, he began teaching that Aum was not merely preparing for the coming Armageddon but had a special role in actively bringing it about, which it later attempted to do.

Even earlier than this, though, between 1990 and 1995, the group had killed some 80 people and perpetrated attacks involving potential WMDs. For example, it was behind no less than 14 chemical and biological weapons attacks that involved releasing anthrax, botulinum toxin, phosgene gas, sarin gas, and VX, short for "venomous agent X," which is even more potent than sarin. (When their compound was eventually raided by the police, they found enough chemicals to produce quantities of sarin that could kill 4 million people.) As Flannery notes, "they may have also attempted to procure the ebola virus and cholera, create a laser weapon, mine uranium, and measure plutonium." In fact, members at one point tried to initiate Armageddon by spraying botulinum toxin from trucks; another incident involved anthrax, although this failed to sicken a single individual. And the laser weapon was, Asahara claimed, prophesied in Revelation as the sword of truth. Again, in Flannery's words, Asahara's "goal was to create a vast laser and plasma weapon that could cut the world in half, an idea drawn from his hero Nikola Tesla."

As the police began to close in on the group, Asahara planned the Tokyo subway attacks, during which sarin was released that killed 12 people, severely hurt 50 others, and sickened almost 5000 more. This may have been a desperate attempt to incite World War III before the group is torn apart, although some believe that the "real attack" was to occur seven months later, in November 1995. The idea is that members occupying the inner circle of Aum would "spray a total of 70 tons of sarin gas from a helicopter, purchased in Russia, with the aim of killing millions." It also appears that Aum had, at one point, seriously considered a strike against the US (in fact, they had offices in New York City) as a mechanism for causing Armageddon (Flannery, 2016).

² For another typology, see Turchin, 2017.

³ See Rees (2003).

There is, I believe, little doubt in the minds of terrorism scholars that if Asahara and his loyal group of scientifically competent acolytes had access to world-destroying WTDs, they would have used them. As with other religio-apocalyptic groups here discussed, while Asahara expected Aum to survive the cataclysmic paroxysms of the eschaton-religions very often see human extinction as an impossibility-this could have led him to use one or more WTDs in a reckless manner, thus effectively elevating the probability of extinction. For example, someone convinced that supernatural forces will save one from a global pandemic or swarm of ecophagic nanobots might be more willing to release a highly virulent pathogen or ecophagic nanobot. It is an exercise in nightmares to imagine what might have been if Aum were somehow transported across time into the milieu of proliferating WTDs later this century. As Murai Hideo, who helped produce WMDs and computer programs from Aum, once said, "I want the present world, which is so full of pain, to be extinguished" (Flannery, 2016). Future artifacts could enable someone like Hideo to do precisely this.

(ii) Abu Musab al-Zarqawi, Abu Ayyub al-Masri, and Abu Bakr al-Baghdadi. These are the three most important figures with respect to the Islamic State, or Daesh, which was arguably the largest and richest terrorist organization in human history. Al-Zarqawi was a psychopathic sadist and sexual predator who believed that the Islamic Armageddon—a grand battle between the Muslims and the "Romans" in the small Syrian town of Dabiq, near Aleppo—was imminent after the 2003 US-led preemptive invasion of Iraq. Despite tensions with bin Laden, he commanded al-Qaeda in Iraq (AQI) until his death in 2006. He also authored a quote that became a rallying cry for Daesh fighters, namely, "The spark has been lit here in Iraq, and its heat will continue to intensify—by Allah's permission—until it burns the Crusader armies in Dabiq." (Indeed, this line opened every issue of the now-defunct Daesh propaganda magazine Dabiq.)

After Zargawi's death, al-Masri, who had close ties with al-Qaeda, took over its operations in Iraq. During his tenure, AQI was rebranded the Islamic State of Iraq (ISI). A primary apocalyptic focus for al-Masri was the appearance of the Mahdi, who some believe will lead the Muslim army into the battle of Armageddon at Dabiq. Consequently, al-Masri made numerous military-strategic decisions based on his apocalyptic convictions—decisions that ultimately backfired. When some close to al-Masri criticized him, he confidently responded that "the Mahdi will come any day" (McCants, 2015). Following his death in 2010 near Tikrit, al-Baghdadi-who had a PhD in "Quranic sciences" and claimed his ancestry could be traced back to the prophet Muhammad-rose to prominence. In 2013, Baghdadi unexpectedly announced that another al-Qaeda affiliate in Syria, namely Jabhat al-Nusra (or the al-Nusra Front, now Jabhat Fateh al-Sham), was now under ISI's control, thus yielding the Islamic State of Iraq and Syria (ISIS). Both Jabhat al-Nusra and al-Qaeda central categorically objected to the merger, yet Baghdadi was insistent. It was this defiant act along with ISIS's increasingly barbaric tactics that led al-Qaeda to repudiate the ISIS organization. As its general command declared in an official statement, al-Qaeda no longer has "an organizational relationship with [ISIS] and is not the group responsible for their actions" (Torres, 2016). Almost exactly a year later, ISIS announced that it was forming a caliphate—the first since the Ottoman Empire, although ISIS never recognized the Ottoman Caliphate as legitimate—called the Islamic State (IS, Daesh).

With respect to Daesh's apocalyptic ideology, the failure of al-Masri's expectations concerning the Mahdi resulted in a shift of focus to the establishment of a caliphate, since a prophetic hadith claims that it will re-emerge prior to the Last Hour. This caliphate will eventually spread across the entire globe, imposing an authoritarian Sharia law on all peoples. (This mirrors the goals of Christian reconstructionists and dominionists in the US, who have so far only engaged in state violence; see Torres, 2016) As one Daesh representative put it, "I say to America that the Islamic Caliphate has been established. Don't be cowards and attack us with drones. Instead send your soldiers, the ones we

humiliated in Iraq. We will humiliate them everywhere, God willing, and we will raise the flag of Allah in the White House" (Kristian, 2014).

How might this grandiose goal be established? Daesh has repeatedly fantasized about acquiring and using weapons of mass destruction (WMDs). For example, after confiscating 88 pounds of uranium from the University of Mosul, a Daesh fighter tweeted that the "Islamic State does have a dirty bomb. We found some radioactive material from Mosul University," adding that they might try to detonate one "in a public area." A laptop was also discovered on which a Daesh sympathizer wrote about weaponizing the bubonic plague. He notes that "the advantages of biological weapons is the low cost and high rate of casualties." He continues, "there are many methods to spread the biological or chemical agents in a way to impact the biggest number of people. Air, main water supplies, food. The most dangerous is through the air." Suicide missions in cars, contaminating air-conditioning systems, and rockets or missiles are also identified as means for inflicting harm (Torres, 2016). (A less high-tech approach, discussed in a 2014 Forbes article, involves Islamic State members intentionally infecting themselves with Ebola in an effort to spread the disease to other parts of the world.) And finally, an issue of Dabiq claims that with "billions of dollars in the bank," Daesh could purchase a nuclear weapon within a year, perhaps from Pakistan, which currently ranks a deplorable 22nd out of 25 states in the Nuclear Threat Initiative's "nuclear materials security index." The article then states that

the nuke and accompanying mujahideen arrive on the shorelines of South America and are transported through the porous borders of Central America before arriving in Mexico and up to the border with the United States. From there it's just a quick hop through a smuggling tunnel and hey presto, they're mingling with another 12 million "illegal" aliens in America with a nuclear bomb in the trunk (ISIS, 2015).

In my own discussions with terrorism experts, there is little doubt that accessing a world-destroying weapon would be an occasion for eschatological ebullience among the many "true believers" of Daesh (Wood, 2014). Finally, it is important to note that the above beliefs—however epistemically ungrounded—will become increasingly important for scholars to understand, since religious adherence is projected to grow this century. According to PEW, nearly 3 billion people will subscribe to Islam by 2050, meaning that the total number of violent Islamists at the ideological fringe will likely increase as well (PEW, 2015).

(iii) Osama bin Laden and Ayman al-Zawahiri. Osama bin Laden founded al-Qaeda in 1988 in response to religio-political complaints against the West, such as the US's military presence in Saudi Arabia and Western sanctions on Iraq, which resulted in an estimated 500,000 excess childhood deaths according to a (1999) UNICEF report. Most infamously, al-Qaeda was responsible for the September 11, 2001 attacks that initiated a cascade of catastrophic events including the 2003 US-led preemptive invasion of Iraq, the proliferation of apocalyptic Shia militia in the region (e.g., the Mahdi Army), the Syrian civil war, and the emergence of Daesh. Bin Laden claimed that it was his "religious duty" to acquire and use WMDs, including nuclear weapons, against the US. In a 2006 audio recording, bin Laden issued an ominous warning that "the days and nights will not pass until we avenge ourselves as on September 11. Your minds will be troubled, your lives embittered, and the course of events will lead to that which is hateful to you. As for us, we have nothing to lose. One who swims in the sea does not fear rain"

The ultimate goal, shared by the current leader of al-Qaeda, al-Zawahiri, is to foment the growth of a global caliphate in preparation for the Islamic apocalypse. (Although the end-goal is similar to Daesh's, al-Qaeda's strategies and tactics are quite distinct.) This ties into the global jihadi movement more generally, of which bin Laden and al-Zawahiri have been leading luminaries for decades. As Landes (2011) puts it, "from 1989 onward,... Sunni Islam produced global Jihadi

warriors, intent on fulfilling the original millennial vision of Islam: establish the caliphate and transform the whole world into *Dar al Islam*." If (the late) bin Laden or al-Zawahiri were to acquire a WMD, they almost certainly would use it; the same conclusion is hard to avoid with respect to WTDs.

(iv) James Ellison and Randall Rader. Consider The Covenant, The Sword, and the Arm of the Lord (CSA). This group began as a Christian fundamentalist group with members "desiring to live a simple, pure Christian life in preparation for the endtime" (Flannery, 2016). However, CSA's founder, the white supremacist James Ellison, later introduced Christian Identity teachings that transformed the group from a passive to an active apocalyptic community (Torres, 2016). According to Christian Identity, the *Parousia*, or Second Coming of Christ, will not occur until a race war commences between white Europeans and all non-white people, including the Jews. On this view, called the "twoseed theory," Adam and Eve produced Abel and Seth, while Eve produced Cain after being seduced by Satan in the Garden of Eden. All nonwhite people-which Christian Identity believers consider Jewish people to be-are the descendants of Cain, and thus of Satan, whereas European whites are the true biblical Israelites. The Jews are thus not merely the devil's progeny but mendacious imposters claiming to be God's "chosen people."

The apocalypse will take the form of a catastrophic race war between the two seedlines. For some exponents of Christian Identity, this war will unfold on its own. But others, including those in CSA, believe that, as Flannery (2016) puts it, "I, as a righteous person, can trigger the end of the Evil age through my actions, especially through eliminating Evil on earth." This led CSA to attempt to initiate the apocalyptic race war through their own actions, believing that this war "would be the time of Tribulation that trigger[s] the arrival of Armageddon." Thus, one member of CSA, Randall Rader, who later joined The Order, declared on film that "he was getting impatient because of how bad things were getting in the world. He finally added that if the Lord didn't hurry up and start Armageddon, he was determined to start it himself." Toward this end, CSA established an "urban setting" that they called Silhouette City, where they trained between 1200 and 1500 recruits in the "Endtime Overcomer Survival Training School" (Flannery, 2016). They also planned to poison the Chicago and Washington DC public water supplies, destroy power grids in Oklahoma and Arkansas, and detonate a bomb near the Alfred P. Murrah building in Oklahoma City, although they failed to carry out these goals. Years later, an attack on Oklahoma City was perpetrated by Timothy McVeigh, a far-right anti-government extremist who was likely influenced by Christian Identity.

More generally, there are perhaps 100,000 people (at most) in the US who subscribe to Christian Identity, the ideological foundation of groups like the Ku Klux Klan, The Order, and the Aryan Nations. Given its conviction that the world must be "purified" through "violent upheaval to eliminate nonbelievers," counterterrorism experts have explicitly identified the Christian Identity movement as posing a high risk for acts of catastrophic terrorism, including attacks using nuclear weapons (Ferguson & Potter, 2005). As Stern and Berger (2015) observe, groups motivated by apocalyptic ideologies like Christian Identity, as well as Daesh and al-Qaeda, aren't "inhibited by the possibility of offending their political constituents because they see themselves as participating in the ultimate battle." Thus, they are "the most likely terrorist groups to engage in acts of barbarism."

2.2. Misguided moral actors

Consider a few short descriptions of agent subtypes motivated by consequentialist ethical theories. Unlike the other subsections above and below, this discussion is somewhat abstract given that few individuals have openly acknowledged a moral desire to annihilate humanity if doing so were possible, even though this prescription follows directly from certain moral commitments associated with forms of classical utilitarianism and negative utilitarianism.

(i) Thoroughgoing classical utilitarians (TCUs). The moral philosopher and negative utilitarian David Pearce argues that "a thoroughgoing classical utilitarian is obliged to convert your matter and energy into pure utilitronium, erasing you, your memories, and indeed human civilisation." Here "utilitronium" refers to a matter-energy configuration that maximizes "utility," however one defines that, better than any human brain possibly could. Thus, TCUs are

obliged to erase... a rich posthuman civilisation with a utilitronium shockwave.... The "shockwave" in utilitronium shockwave alludes to our hypothetical obligation to launch von Neumann probes propagating this hyper-valuable state of matter and energy at, or nearly at, the velocity of light across our Galaxy, then our Local Cluster, and then our Local Supercluster.

Although surveys show that 23.6% of philosophers accept a consequentialist normative ethics, there is no information about how many of these individuals espouse TCU in particular (Bourget & Chalmers, 2014). Either way, I am unaware of any TCUs who explicitly endorse the creation of a utilitronium shockwave. Perhaps as the possibility of converting matter and energy into utilitronium becomes technologically feasible, TCUs will begin to pose a direct existential hazard to the continuation of our evolutionary lineage.

(ii) Radical negative utilitarians (NUs). As Thaddeus Metz (2012) puts it, radical NUs accept the ethical theory of

antinatalism as well as pro-mortalism, the view that it is often prudent for individuals to kill themselves and often right for them to kill others, even without their consent. It pretty clearly has these implications if one can kill oneself or others painlessly, but probably does so even if there would be terror beforehand; for there would be terror regardless of when death comes, and if death were to come sooner rather than later, then additional bads that would have been expected in the course of a life would be nipped in the bud.

In fact, the most famous objection to radical NU was proposed in 1958 by R.N. Smart, who claimed that, if suffering is all that matters morally, radical NUs should endorse a "world-exploder" who eliminates suffering by annihilating all life in the universe. Some NUs acknowledge that this does indeed follow from their ethical commitments, yet they argue that one should not attempt to annihilate humanity for the merely practical reason that doing so would likely fail, given the limited destructive capacities of current dual-use technologies. But this implies that if more effective means for annihilation were to become available in the future—perhaps enabling one to eliminate humanity painlessly and/or instantaneously-one should indeed "explode the world." Pearce (2005) conjectures that there are "a few hundred—or at most a few thousand-persons scattered across the globe [who] currently acknowledge the NU title," although (a) I have elsewhere argued that the demographic of NUs, including radical NUs, could increase this century as civilization encounters one or more global catastrophes that cause immense human suffering, and (b) we will see in Section 3 that a number of anonymous individuals online have expressed the moral sentiment of radical NU, whether they would describe their view as "negative utilitarian" or not (Torres, 2017a, 2017b).

2.3. Radical ecoterrorists

Consider some agents within the "ecoterrorist" category, which includes deep ecology extremists, radical environmentalists, eco-fascists, anti-civilization fanatics, anarcho-primitivists, violent technophobes, militant neo-Luddites, and fringe eco-anarchists (or green anarchists):

(i) *Gaia Liberation Front*. Headquartered in Toronto, Canada, the Gaia Liberation Front (GLF) is founded on a radical interpretation of deep ecology. As its communique #1 states, "Our mission is the total liberation of the Earth, which can be accomplished only through the extinction of the Humans as a species." This mission is based on the idea that "the Humans evolved on the Earth, but are no longer of the Earth.

Having become alienated from the Earth, they must be regarded as an alien species." The group adds that "the evidence is overwhelming that the Humans are programmed to kill the Earth. This programming is not only cultural, but probably also genetic since the major technologies Humans use for this purpose, from agriculture and metallurgy to writing and mathematics, have all been invented independently more than once." And "in any case, every Human now carries the seeds of terracide. If any Humans survive, they may start the whole thing over again. Our policy is to take no chances" (Korda, 2017).

How might GLF achieve their omnicidal goal of exterminating *Homo* sapiens? In its "Statement of Purpose (A Modest Proposal)," the group asserts that humanity is an "alien species," "virus," or "cancer" that must be excised from the planet. Unfortunately, they say, doing this through nuclear war would result in too much collateral damage, mass sterilization would be too slow, and suicide is logistically impracticable. Yet bioengineering offers "the specific technology for doing the job right—and it's something that could be done by just one person with the necessary expertise and access to the necessary equipment." Furthermore, "genetically engineered viruses... have the advantage of attacking only the target species. To complicate the search for a cure or a vaccine, and as insurance against the possibility that some Humans might be immune to a particular virus, several different viruses could be released (with provision being made for the release of a second round after the generals and the politicians had come out of their shelters)" (GLF, 1994).

Incidentally, this echoes an earlier statement made by an anonymous author in the *Earth First! Journal*, namely: "Contributions are urgently solicited for scientific research on a species specific virus that will eliminate Homo shiticus from the planet. Only an absolutely species specific virus should be set loose. Otherwise it will be just another technological fix. Remember, Equal Rights for All Other Species" (Dye, 1993). It is also reminiscent of a deep ecology extremists who goes by the name of "Pete." In an "e-sermon" by the founder of the Church of Euthanasia, Chris Korda, Pete is quoted as saying that

it becomes more and more clear to me every day that mass sterilization is the only answer to our environmental problems.... I'm ready to hop in a B-52 with a payload of genetically-tailored-virus smart-bombs, enough to sterilize 99% of the world's population in one trans-globe flight. Someone need only invent the hardware, train me, and present me with the opportunity. Maybe in 10 years it will be possible (Korda, 2017).

With respect to GLF, the view that Earth would be better off bereft of humanity is further elaborated in a conversation between a "spokesorganism" for GLF named Geophilus and Les U. Knight, the deep ecologist who founded the Voluntary Human Extinction Movement, which advocates human extinction through non-coercive, voluntary means:

Les: How does the GLF differ from the Voluntary Human Extinction Movement?

Geophilus: While we support all voluntary efforts to make the Humans extinct, we do not exclude the involuntary route. At the rate that the Humans are killing the earth—and for all we know she may have already passed the point of no return—a decision to not reproduce, by itself, even if adopted immediately by every Human... would be just too damn slow.

Les: What involuntary methods do you have in mind?

Geophilus: We support, for example, involuntary sterilization, but we would also welcome the escape of any new anti-Human viruses—such as the airborne version of AIDS that might result from AIDS research on mice.

Les: What about wars?

Geophilus: In the war of the Humans against the Earth—the only war we're concerned about—we take the side of the Earth, so we have no problem in principle with the Humans reducing their

numbers by killing one another. It's an inefficient way of making the Humans extinct—every quarter of a million Humans killed represents only one day's growth of the Human population—but every little bit helps. Our only concern is that, in the process, the Humans do a lot of collateral damage to non-Human life, so we want them to confine themselves to hand-to-hand combat or, better yet, to the use of biological agents that kill only Humans.

Les: In practice, wouldn't involuntary human extinction take the form of genocide?

Geophilus: Well, sure, it might.... The taboo against genocide helps to protect the Humans from one another, so it's a good thing for them, but as soon as you stop seeing things from a Human point of view and adopt the viewpoint of the Earth—and it helps here to see Humans as having become a hostile alien species—things look rather different....

Les: So, why don't you just commit suicide?

Geophilus: If I merely believed in Human extinction, then of course, you'd be right. But, in my judgment, the good I'm doing by promoting the idea of Human extinction outweighs the harm I'm doing by staying alive (Korda, 2017).

(ii) *Pentti Linkola*. A fisherman and self-described "eco-fascist" whose views are also based on an extreme version of deep ecology, Linkola was one of the "most celebrated" authors in his home country of Finland, although he remains largely unknown to the rest of the world (Milbank, 1994). He espouses a radical variation of Garrett Hardin's "lifeboat ethics." Whereas Hardin advocated a passive policy of not helping the poor (because of overpopulation), Linkola writes the following: "What to do, when a ship carrying a hundred passengers suddenly capsizes and there is only one lifeboat? When the lifeboat is full, those who hate life will try to load it with more people and sink the lot. Those who love and respect life will take the ship's axe and sever the extra hands that cling to the sides" (Linkola, 2017).

Linkola charges that Western society is guilty of a perverse "overemphasis on the value of human life" and that "on a global scale, the main problem is not the inflation of human life, but its ever-increasing, mindless over-valuation" (Linkola, 2011). To solve the problem posed by human activity-that is, to avoid an "ecocatastrophe"-Linkola endorses the use of catastrophic violence. As Evangelos Protopapadakis (2014) puts it, "Any means to decreasing human population would be welcomed with relief by Linkola; even war, genocide, and disease, as long as any of these would be massively destructive for the species Homo sapiens." Thus, Linkola opines that another world war would be "a happy occasion for the planet," although "it would spark hope only if the nature of wars would morph so that deductions of persons would noticeably target the actual breeding potential: young females as well as children, of which a half is girls. If this doesn't happen, waging war is mostly [a] waste of time or even harmful" (Linkola, 2006; Milbank, 1994). Even more, Linkola claims that "some transnational body [or] small group equipped with sophisticated technology and bearing responsibility for the whole world" should attack "the great inhabited centres of the globe" (Linkola, 2011). And perhaps most relevantly, he writes that "if there were a button I could press, I would sacrifice myself without hesitating, if it meant millions of people would die" (Milbank,

From Linkola's perspective, the well-being of individuals is subordinate to the flourishing of the whole—that is, the global ecosystem and human species. Indeed, Linkola does not advocate for human extinction, which he argues would be "an extremely bad thing" (although he did apparently once write, "I wish that death to mankind comes soon. So quickly that mankind will not have time to destroy nature's potential for future evolution. Suicide is a deed of an active person") (PFN, 2007; Protopapadakis, 2014). Yet if a WTD that could induce a global genocide and, therefore, a significant loss of human life were to become available, there is little doubt that Linkola would advocate that someone use it if not attempt to acquire it himself. As he once told his followers, "we still have a chance to be cruel. But if we are not cruel today, all is lost" (Linkola, 2017).

(iii) Ted Kaczynski and Individuals Tending to the Wild (or Savagery). Also known as the Unabomber, Kaczynski perpetrated a domestic terrorism campaign beginning in 1978, during which he sent bombs to airlines and universities that killed 3 people and injured 23 others. In 1995, the New York Times and Washington Post published Kaczynski's 35,000-word manifesto, "Industrial Society and Its Future," that outlined his ideological motivations. According to Kaczynski, the megatechnics of industrial society has severely compromised human freedom. Only once humanity embraces "small-scale technologies" rather than "organization-dependent technologies" will it regain the freedom stolen by the latter. This view is mostly unrelated to the deep ecology ideas that inform the worldviews of GLF, Linkola, Chris Korda, James Lee, and Dave Foreman, although he does say in his manifesto, "since there are well-developed environmental and wilderness movements, we [Kaczynski] have written very little about environmental degradation or the destruction of wild nature, even though we consider these to be highly important" (Kaczynski, 1995). Rather, Kaczynski's view stems from a (neo)Ludditic tradition associated with technology critics like Jacques Ellul and Lewis Mumford. For Kaczynski, the ultimate goal is to transition civilization to the "positive ideal" of "WILD nature," while introducing what he describes as a "wilderness religion... focused on nature in opposition to technology" that could fill the "religious vacuum in our society" (Flannery, 2016).4

Kaczynski is not opposed to the use of violence, even catastrophic violence, to bring about his goal. As many scholars have noted, if Kaczynski had trained as a microbiologist or geneticist rather than a mathematician at Harvard, the death-toll from his 17-year-long campaign could have been far greater. For Kaczynski, violence is simply a vehicle to the end of civilizational collapse. Thus, he writes, "We therefore advocate a revolution against the industrial system. This revolution may or may not make use of violence; it may be sudden or it may be a relatively gradual process spanning a few decades.... Its object will be to overthrow not governments but the economic and technological basis of the present society" (Kaczynski, 1995).

In recent years, Kaczynski has invigorated other dangerous groups to target people seen as guilty participants in the baneful techno-industrial system. For example, a Mexican group called "Individualidades Tendiendo a lo Salvaje" (ITS), or "Individuals Tending to the Wild (or Savagery)," sent a mail bomb to the Monterrey Institute of Technology and Higher Education in Mexico City in 2011 that seriously injured a robotics researcher and ruptured the eardrum of a computer scientist. As the Chronicle of Higher Education reports, ITS has also "been linked to attacks in France, Spain, and Chile," and the group, which has a nominal presence across much of Latin America, took responsibility for the murder of an engineering student at the National Autonomous University of Mexico on May 3, 2017 (Lloyd & Young, 2011). One of its explicit concerns, and the reason ITS has targeted nanotechnologists in particular, is the future possibility of self-replicating ecophagic nanobots; if released into the environment, such nanobots could, as mentioned above, potentially destroy the entire biosphere. While ITS was, according to the anarcho-primitivist and former confident of Kaczynski, John Zerzan, initially "real slavish" to Kaczynski, at least one observer claims that it appears to have recently adopted a more omnicidal ecofascist ideology according to which "the human being deserves

extinction" (Campbell, 2017). Given its track record of violent acts and its anti-civilization, anti-technology, or possible anti-human commitments, ITS could pose a grave danger to society in the coming decades.

2.4. Idiosyncratic actors

Consider some agents motivated by idiosyncratic beliefs/desires that motivated them to commit mass shootings and other atrocities:

(i) *Eric Harris*. Harris was the mastermind behind the 1999 Columbine High School massacre that, if it had gone as planned (i.e., a propane bomb positioned in the cafeteria failed), could have killed 600 students. Harris was a sadistic psychopath who frequently wrote about raping, torturing, mutilating, and murdering others, including students he knew personally. For example, he once wrote:

I want to tear a throat out with my own teeth like a pop can. I want to gut someone with my hand, to tear a head off and rip out the heart and lungs from the neck, to stab someone in the gut, shove it up to their heart, and yank the fucking blade out of their rib cage! I want to grab some weak little freshman and just tear them apart like a wolf, show them who is god. Strangle them, squish their head, bite their temples in the skull, rip off their jaw ... the lovely sounds of bones cracking and flesh ripping, ahhh ... so much to do and so little chances (Langman, 2015).⁵

But Harris' ghoulish fantasies weren't limited to individuals, he also expressed omnicidal desires for "apocalyptic ... revenge" against the entire human species.⁶ For example, he wrote, "If you recall your history the Nazis came up with a 'final solution' to the Jewish problem. Kill them all. Well, in case you haven't figured it out yet, I say 'KILL MANKIND' no one should survive." He also declared, "I think I would want us to go extinct," adding, "I have a goal to destroy as much as possible.... I want to burn the world" and "I just wish I could actually DO this instead of just DREAM about it all," thereby expressing frustration with the limited destructive means at his disposal (Langman, 2009a). Elsewhere Harris announced, "If I can wipe a few cities off the map, and even the fuckhead holding the map, then great. Hmm, just thinking if I want all humans dead or maybe just the quote-unquote 'civilized, developed, and known-of' places on Earth, maybe leave little tribes of natives in the rain forest or something. Hmm, I'll think about that" (Langman, 2010a). This echoes one of Harris' inspirations, Charles Manson, who told Geraldo Rivera in a 1988 interview, "I'm going to chop up some more of you motherfuckers. I'm going to kill as many of you as I can. I'm going to pile you up to the sky. I figure about fifty million of you. I might be able to save my trees and my air and my water and my wildlife."

Like so many other risky agents enumerated here-including apocalyptic terrorists, radical NUs, radical and environmentalists-Harris was neither uneducated nor unintelligent. For example, he enjoyed math and science, quoted Shakespeare in his journal, and seems to have been conversant with the philosophical musings of Thomas Hobbes and Friedrich Nietzsche, the latter of whom is sometimes quoted as saying, "the world is beautiful, but has a disease called Man," a dark aphorism that Harris may have come across (Langman, 2010a). Harris was also a master at "impression management," or the ability to conceal his true feelings while feigning emotions appropriate to the situation. Indeed, he even bragged that he is so talented at lying that "I could convince [school administrators] that I'm

⁴ Echoing some of the rampage shooters above who suffered from delusions of divinity, Kaczynski once wrote in his journal that he "never had any interest in or respect for morality, ethics, or anything of the sort.... The fact that I was able to admit to myself that there was no logical justification for morality illustrates a very important trait of mine... I have much less tendency to self-deception than most people... Thus, I tended to feel that I was a particularly important person and superior to most of the rest of the human race... It just came to me as naturally as breathing to feel that I was someone special." A psychiatrist appointed by the court diagnosed him with paranoid schizophrenia, although the accuracy of this diagnosis has been disputed.

⁵ This may remind one of Genghis Khan's statement that "the greatest happiness is to scatter your enemy, to drive him before you, to see his cities reduced to ashes, to see those who love him shrouded in tears, and to gather into your bosom his wives and daughters."

⁶ According to The Report of Governor Bill Owens' Columbine Review Commission, "After a year of planning, during which they assembled bombs, practiced target shooting with their firearms and fueled one another's apocalyptic vision of revenge, Dylan Klebold and Eric Harris launched their attack on Columbine High School on the morning of April 20, 1999."

going to climb Mount Everest, or that I have a twin brother growing out of my back.... I can make you believe anything" (Langman, 2009a). This ability even enabled Harris to avoid full punishment for breaking into a vehicle: while charming "his way to an early termination of a probation program he was ordered to participate in following his arrest for stealing electronic equipment from a van," he was simultaneously "writing scathing remarks about the situation in his journal," such as "Fucker should be shot," referring to the van's owner (Langman, 2009a, 2009b) Given the ample textual evidence along with the mass murder rampage that ended in 13 deaths, 21 injuries, and Harris' suicide (along with his psychotic partner Dylan Klebold), Harris would have posed an extinction risk if he had lived in the future world anticipated through techno-developmental extrapolation.

(ii) Pekka-Eric Auvinen. At the age of 18, Auvinen carried out an attack at his school in Jokela, Finland, during which he attempted to set fire to the school and killed a school nurse, the principle, and 6 students. Describing himself as "a cynical existentialist, antihuman humanist, antisocial social darwinist, realistic idealist and godlike atheist," Auvinen most likely suffered from schizotypal personality disorder (CNN, 2007). He was also quite conversant with Eric Harris' journal and massacre, and he "discussed Columbine and other rampage attacks at home, school, and online" (Langman, 2012). Indeed, his journal evinces myriad parallelisms with Harris' journal, including plans for his attack, a discussion of natural selection and expunging the "unfit," and his own divine superiority, as in: "I can't say I belong to [the] same race as the lousy, miserable, arrogant, selfish human race! No! I have evolved one step above!... Compared to you retarded masses, I am actually godlike." As Langman writes, "it's as if Auvinen submerged his socially anxious self and adopted Eric Harris as an alternate identity" (Langman, 2012).

Auvinen constitutes a less straightforward case of omnicidal agency than Harris. Consider, for example, his statement that

when my enemies will run and hide in fear when mentioning my name... When the gangsters of the corrupted governments have been shot in the streets... When the rule of idioracy [sic] and the democratic system has been replaced with justice... When intelligent people are finally free and rule the society instead of the idiocratic rule of majority... In that great day of deliverance, you will know what I want. Long live the revolution... revolution against the system, which enslaves not only the majority of weak-minded masses but also the small minority of strong-minded and intelligent individuals! If we want to live in a different world, we must act. We must rise against the enslaving, corrupted and totalitarian regimes and overthrow the tyrants, gangsters and the rule of idiocracy (Langman, 2012).

This suggests a fantasy of global-scale destruction rather than omnicide. Nonetheless, there are numerous instances in which Auvinen expressed a desire for the latter. For example, he created a tribute video for Pentti Linkola that includes the quote (from above), "I wish that death to mankind comes soon." He also wrote about "a final solution" as "the death of entire human race." In an online manifesto, he declares that "death and killing is not a tragedy" and that "human life is not sacred. Humans are just a species among other animals and world [sic] does not exist only for humans." Auvinen further described his homicidal attack as "an operation against humanity with the purpose of killing as many people as possible." He saw it as "one man's war against humanity," as well as "governments and weak-minded masses of the world." He also affirms, likely referencing Harris, that "like some other wise people have said in the past, human race is not worth fighting for."

These expressions of hatred for humanity, of "existential rage," suggest that if Auvinen had access to a world-destroying WTD, he very likely would have used it to obliterate as much of the human population as possible.

(iii) Matti Saari. Another Finnish individual who likely suffered from schizotypal personality disorder, Saari perpetrated his attack in 2008 at the Seinajoki University of Applied Sciences. The result was fires in the school, 10 deaths, and a single injury, followed by Saari's suicide. Like Auvinen, he had a strong interest in weapons and US rampage shootings; he also emulated both Harris and Auvinen. As Langman notes, "it seems likely that he had read Auvinen's manifesto and thus may have derived his ideology of hatred of humanity from Auvinen." In fact, "Saari made a pilgrimage to Auvinen's school, bought his guns from the same dealer as Auvinen, and reportedly even changed his hair and clothes to look like Auvinen" (Langman, 2012). And while-unlike Harris and Auvinen—he didn't leave behind a journal or manifesto full of candid and intimate details of his inner mental life, there is evidence that he espoused an omnicidal "kill everyone" attitude. For example, Saari wore a shirt on the day of his attack that read "humanity is overrated," a phrase he apparently uttered to multiple people days before while he was inebriated. He also penned a suicide note in which he wrote, "I hate the human race, I hate mankind, I hate the whole world and I want to kill as many people as possible." This is about as unambiguously omnicidal an admission as one could write. Thus, given his willingness to inflict mass harm on others and apparent rancor toward humanity, Saari appears to be a likely candidate for existential violence had sufficiently powerful technologies been available.

(iv) Kimveer Gill. Born in 1981, Gill perpetrated the Dawson College shooting in Montreal, Quebec, in 2006 that resulted in one death and 19 injuries; Gill then committed suicide. He was described as a kind, well-behaved, well-liked, and gentle child, but he became increasingly isolated and disturbed in his twenties (Langman, 2010b). Yet another shooter who was inspired by Harris, Gill regurgitated many of the ideas and themes found in Harris' journal. For example, he left a sizable record of postings on the website VampireFreaks. Each post enables users to identify their "mood," which Gill variously identifies as "vengeance," "life sucks," "fuck the motherfucking world," "psychotic like a German," and "destroy all mankind." In one post with the mood "homicidal," Gill wrote, "Let the blood flow Let the streets run red with blood Blood of mine enemies." Another post with the title "Vengeance is coming" imagines the following ghoulish scene:

It will be a quiet and peacefull [sic] morning. A light drizzle will be starting up. The clouds will be grey, so grey. Just the way I like it. Disembowled [sic] bodies litter the streets. Some have been decapitated, others hung off bridges and over-passes. Yet, others still lie burning. Flames slowly eatting [sic] away at their putrid flesh. Glorious. HA HA HA HA HA HA HA HA HA HA.

Additional comments include: "I hate this world I hate the people in it I hate the way people live I hate god I hate the deceivers I hate betrayers I hate religious zealots I hate everything I hate so much (I could write 1000 more lines like these, but does it really matter, does anyone even care) Look what this wretched world has done to me"; "Turn this fucking world into a graveyard Crush all those who stand in your way Let there be a river of blood in your wake Walk through that river with pride You are their hero The true hero Don't you just love freshly dug graves I do"; "FUCK THE WORLD. You're all animals. I can see through you. When I look in your eyes I can see your thoughts," "Fuck Life Fuck the world and everything in it"; and "Fuck people Fuck Life Fuck god"

⁷ Elsewhere Harris wrote: "I have a goal to destroy as much as possible so I must not be sidetracked by my feelings of sympathy, mercy, or any of that, so I will force myself to believe that everyone is just another monster from Doom like FH or FS or demons, so It's either me or them. I have to turn off my feelings." See: http://acolumbinesite.com/eric/writing/journal/journal.php.

⁸ His profile on the website read as follows: "He has met a handful of people in his life who are decent. But he finds the vast majority to be worthless, no good, kniving [sic], betraying, lying, deceptive motherfuckers. Work sucks... school sucks... life sucks... What else can I say. Metal and Goth kick ass. Life is like a video game, you gotta die sometime."

(Gill, 2005).9

According to Langman, Gill likely suffered from adult-onset schizophrenia. His online posts clearly indicate that he experienced "paranoid delusions and delusions of grandeur" (Langman, 2010b). For example, Gill repeatedly suggests that he is superior to other humans, writing "Ich Bin Got," which is German for "I am God." (Note that Harris also wrote this in German in his journal.) Elsewhere he says, "Hey, assholes!! Everything everyone says or does against me is shown to me in my dreams, I see everything. You fucking monkeys. God, you humans are so inferior." "I'll never understand humans. The way they live their lives, their feelings, the things they want to do in life," and "FUCK THE WORLD. You're all animals. I can see through you. When I look in your eyes I can see your thoughts. You're nothing at all. Just animals. Always thinking about sticking your dicks in a hole. FUCKING ANIMALS." In one post with the mood marked as "nothingness," Gill also reveals his withdrawal into deep social isolation, even from his family: "I am locked in an invisible cage within my head. There is no chance of escape." Given Gill's violent acts as well as his apparent rage against "the world" and humans who he saw as inferior "animals," he could have posed an agential risk of omnicidal proportions if the means had been available.

(v) Seung Hui Cho. He was responsible for the 2007 Virginia Tech shooting that left 32 people dead and 17 wounded. My own interpretation of Cho's motivations is that they are largely incoherent, a mix of messianic declarations, defenses of the "poor," "weak," and "innocent," and claims that his rampage will ignite a massive "revolution of the Children that you fucked" (Cho, 2007). This is consistent with Langman's (2009b) classification of Cho as psychotic shooter; indeed, he exhibited both negative and positive symptoms of schizophrenia, including poverty of speech, affective flattening, and grandiose/paranoid delusions. What is germane to the present context is that Cho not only acted out some of his homicidal fantasies, thereby affirming his willingness to convert words to deeds, but that he repeatedly writes about annihilating large portions of humanity—that is, not "the Weak, the Defenseless, or the Innocent, but the sadistic, the corrupt, and the wicked who prey and rape from the Weak, the Defenseless, and the Innocent." In a pre-rampage multimedia manifesto, Cho writes: "Fuck you.... I [say] we take up the cross, Children of Ishmael, take up our guns and knives and any sharp objects, and take no prisoners and spare no lives until our last breath and last ounce of energy." He later adds,

You Lifetakers may have succeeded in raping our souls and shattering our dreams-but mark our words-the vendetta you have witnessed today will reverberate throughout every home and every soul in America and will inspire the Innocent kids that you have fucked to start a war of vendetta. We will raise hell on earth that the world has never witnessed. Millions of deaths and millions of gallons of blood on the streets will not quench the avenging phoenix that you have caused us to unleash. Generation after generation, we martyrs, like Eric and Dylan [who perpetrated the Columbine massacre], will sacrifice our lives to fuck you thousand folds for what you Apostles of Sin have done to us. Pain of every atom between air and water, sky and ground, heaven and hell, life and death wouldn't begin to explain the experience that we went through under your wrath.... Let the revolution begin! Die vou Descendants of Satan! Fuck you, and die now! I am Ax Ishmael. I am the Anti-Terrorist of America (Cho, 2007).

It is entirely possible that a future individual with no coherent beliefs or grievances will attempt to destroy the world using WTDs. Such a person might have only the vaguest sense of injustice, yet this sense could be sufficiently intense for her or him to seek out the instrumental means—a doomsday button—to exact revenge upon "the world" or "the

guilty." Cho appears to be a good candidate for someone who could instantiate this role.

(vi) *Elliot Rodger*. A final instance of this type is Elliot Rodger, the young man who likely suffered from both psychopathy and psychosis, and who perpetrated the 2014 Isla Vista killings that resulted in 14 injuries and 7 deaths. There is some evidence of omnicidal tendencies, such as when he said in a video taken a day before his rampage,

I hate all of you. Humanity is a disgusting, wretched, depraved species. If I had it in my power, I would stop at nothing to reduce every single one of you to mountains of skulls and rivers of blood. And rightfully so. You deserve to be annihilated. And I'll give that to you (quoted in WP, 2014).

But it appears that Rodger channeled his rage at women in particular for rejecting his "sexual advances," resulting in him being "a kissless virgin" until he committed murder-suicide at age 22. Thus, he wrote, "I am not part of the human race. Humanity has rejected me. The females of the human species have never wanted to mate with me, so how could I possibly consider myself part of humanity?" (Winton et al., 2014) and

women's rejection of me is a declaration of war, and if it's war they want, then war they shall have. It will be a war that will result in their complete and utter annihilation. I will deliver a blow to my enemies that will be so catastrophic it will redefine the very essence of human nature (Langman, 2014).

This led Rodger to a bizarre fantasy of slaughtering most women but keeping a small number imprisoned "for the sake of reproduction." To quote him at length:

In order to completely abolish sex, women themselves would have to be abolished. All women must be quarantined like the plague they are, so that they can be used in a manner that actually benefits a civilized society. In order [to] carry this out, there must exist a new and powerful type of government, under the control of one divine ruler, such as myself... The first strike against women will be to quarantine all of them in concentration camps. At these camps, the vast majority of the female population will be deliberately starved to death.... A few women would be spared, however, for the sake of reproduction. These women would be kept and bred in secret labs. There, they will be artificially inseminated with sperm samples in order to produce offspring (quoted in Langman, 2014).

It is a frightening prospect that someone like Rodger could gain access to immensely destructive dual-use artifacts in the foreseeable future.

3. Discussion

So, perhaps "not many people would prefer to destroy the world" as a *percentage* of the global population, but in terms of *absolute numbers*, the discussion above suggests that there are indeed "many" individuals who would push a doomsday button if only they could. This conclusion is further buttressed by evidence—albeit more anecdotal in nature—from online discussion forums and websites. A thorough Google search reveals more than a few people who believe that human annihilation would be a good thing; in fact, virtually all of these individuals instantiate one of the four agential risk categories listed above. For example, consider several responses to a Reddit question that asks, "Would you destroy humanity if you got the chance? Why or why not?":

Yes. It is obvious that we gain nothing from living and there is a huge amount of human suffering that I find quite unjustifiable. The complete annihilation of the human race would be the greatest act of compassion ever.

Yes, we suck as a human race.

Yes. Because you all are assholes. And this is not a joke i [sic] would

 $^{^{9}}$ Interestingly, Gill also asked people to support a band called "Doomsday Refreshment Committee".

love to push something that ends humanity. I always thought about it and now there is the question about that topic and i [sic] am happy to say i [sic] want you all dead everyone single one of you fuckers. Please give me the chance to wipe out humanity.

Probably so.... Technological advances are becoming cutting edge in heinous proportions. I can say that the world lacks humanity in general, so maybe a global purge is in order.

How about most of humanity?... In all, maybe 10,000 people tops.... enough biodiversity to keep humans around (PoshyX, 2015).

Two years later, someone posted a Reddit rant advocating human extinction:

Omnicide is basically the idea of mass extinction, or mass annihilation where everyone on earth dies. And I fucking love the idea. And people get shocked like I'm out my fucking mind when I try to advocate it. Jesus, if humanity went poof if the fucking ruskies [sic] and Americans launched all they're [sic] goddamn nukes at once, and everyone died, that would put an end to my problems, yours and everyone else's. Because there would be no one to have problems. There would be no greed, no corruption, no idiots, no nothing. The ultimate peace, and nobody would feel a damn thing. Death isn't simply darkness, the idea of death precludes the idea of even sensing darkness or anything else, it's like sleeping, and I wish all of humanity would go to sleep and never wake up. Anyone else agree with me? (Jakey81, 2017).

The author then adds:

And no, I'm not surprised people think I'm crazy because I know a good way of solving all problems; I'm [just disappointed], but that's all I've felt for my [sic] most of my life. But omnicide is a logical solution, because it does, in fact, cure problems, and it precludes any consequences because there will be no one that they can affect.

In response to these statements, one person writes that "you and I are cut from the same cloth. Honestly, I think the sooner the human race is wiped out the better," while another observes that an attack should occur "preferably before we spread to other planets," since expanding into space would presumably lower the probability of a single attack causing human extinction.

There is also a Debate.org question that asks, "if you could push a button and destroy all human life. [sic] Would you? All other life would survive as is; plus evidence of mankind too" (Digitalbeachbum, 2014). Roughly 80% of respondents, as of this writing, answered affirmatively. This does not need to be a scientific poll to warrant concern: the fact is that many people not only answered "yes" but offered detailed reasons for this answer. A few such explanations are:

My view is that Mankind is a plague.... I vote to destroy mankind and let nature start over.

The human animal is the only evil animal in the animal kingdom. We destroy everything.... I email the president weekly and beg him to push the button and stop the madness already.

Yes i [sic] would because animals would be much better off without us and they are innocent beings that don't deserve the misery we bring them.

In the short time we've been on this planet, humans have already destroyed so much. We destroy ecosystems, and kill off entire species of animals.... The world would be better off without humans as a whole.

This suggests that the demographic of risky agents could be even larger than a narrowly focused study of particular, non-anonymous agents—such as that provided in Section 2—would indicate. There could even be agents whose ideologies become existentially dangerous because of the development of world-destroying WTDs. For example, consider that Ruhollah Khomeini, who led the 1979 Iranian Revolution that many Shi'ites saw as an "apocalyptic occurrence" (Cook, 2011),

declared that "it is Allah who puts the gun in our hand. But we cannot expect Him to pull the trigger as well, simply because we are fainthearted" (quoted in Landes, 2011). Thus, what might happen when the "gun" that God puts in one's hand is a WTD? Could the *regional over-throw* of the Shah have become a *global revolution* aimed at, say, killing the infidels and establishing a world Caliphate? After all, Khomeini also wrote that

if we kill infidels in order to put a stop to their [corrupting] activities, we have indeed done them a service ... To allow the infidels to stay alive means to let them do more corrupting [activities]. [To kill them] is a surgical operation commanded by Allah ... War is a blessing for the world and for every nation. It is Allah himself who commands men to wage war and kill ... The wars that our Prophet ... waged against the infidels were divine gifts to humanity ... We have to wage war until all corruption, all disobedience of Islamic law ceases ... The Quran commands: "War! War until victory!" A religion without war is a crippled religion ... It is war that purifies the earth ... to kill the infidels is one of the noblest missions Allah has reserved for mankind (quoted in Landes, 2011).

The development of advanced technologies could also further reinforce people's belief in certain eschatological narratives by, for instance, being interpreted as a fulfillment of prophecy. An example comes from a 1971 dinner during which Ronald Reagan said: "Everything is falling into place. It can't be too long now. Ezekiel says that fire and brimstone will be rained upon the enemies of God's people. That must mean that they'll be destroyed by nuclear weapons. They exist now, and they never did in the past" (see Torres, 2016). More recently, some Christians have even speculated that the Antichrist could take the form of a machine superintelligence, or use a superintelligence to realize his nefarious machinations. In the words of one author, "the beast is a global superintelligence arising from humanity" (Sheridan, 2015). Another cites Bostrom's (2014) book Superintelligence, writing that

Scripture has long foretold that the birth of AI... or what Scripture calls the False Prophet.... People will extol its virtues as representing the pinnacle of humanity's genius.... [But] when the Antichrist calls for the death of the so-called insurgent believers, the AI will have all the information needed to exact the great purge that will be considered necessary to rid humanity of its dissidents, and unify it once and for all. Suddenly, the dragon will emerge, and no minority report will be considered (Orlowski, 2014).

Along these lines, the Islamic author Da'ud makes the interesting claim that the Mahdi's great power over the world will be enabled through advanced technology rather than supernatural agency:

The United States of America will never be able to do anything, because the Mahdi will rule the entire world, and the technology is the main thing. Most of his miracles that he will accomplish will not be divine miracles, but very advanced scientific miracles that stupefy the people and make them happy at the same time (quoted in Cook, 2005).

Similar concerns apply to secular moral theories like antinatalism, which endorses human extinction through the voluntary cessation of procreation. As perhaps the most famous antinatalist, Arthur Schopenhauer, once wrote, "if children were brought into the world by an act of pure reason alone, would the human race continue to exist?" More recently, Benatar (2006) has put forth a "pro-death" view according to which one should favor early-term abortion to avoid the harm of coming into existence. He also explicitly argues that human extinction is desirable, although certain moral prohibitions should prevent antinatalists from becoming pro-mortalists who actively attempt to annihilate humanity. The point is that antinatalism and its prodeath, pro-extinction views could easily yield pro-mortalist views in a world where terminating our lineage is no longer fantasy but has

become a very real possibility. In fact, some NUs have argued that one should not try to destroy the world for the merely *practical reason* that doing so would likely fail, thus resulting in even more suffering (Torres, 2017a). This implies that if one were to acquire technologies that would likely succeed, one should indeed try to destroy the world. The same line of reasoning could apply to antinatalists who favor human extinction: perhaps a Schopenhauerian from the nineteenth century never entertained the idea of unilaterally turning off the lights because doing so fell outside the sphere of possibility. Or perhaps if Benatar had written his book in 2110 rather than 2010 he would be more open to the idea of unilaterally bringing the human story to an end, thereby realizing his ultimate aim of extinguishing the species. These are just a few important considerations that deserve more scholarly attention.

4. Conclusion

The distribution of offensive capabilities across society is multiplying the number of doomsday buttons within finger's reach of a growing number of agents. This makes the question of who would destroy the world if only they could increasingly important and urgent. The present paper builds on past work by offering a concrete examination of various token agential risks. Its value stems from the fact that, as civilization enters a new era of many-to-many threats, in which more and more groups and individuals will acquire the unilateral capacity to inflict global-scale harm on humanity, we will need to devise effective strategies to mitigate agential risks. Yet devising such strategies will require substantive knowledge of both agential risk types and tokens. I do not claim that this paper offers an exhaustive account of the latter, but it does hope to lay the foundations for future work on the topic.

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