

CALL FOR PAPERS

ACM Transactions on Interactive Intelligent Systems (TiiS)

Special Issue on Human-centered Explainable AI

Background

As AI systems increasingly power decision-making in high-stakes domains like healthcare and finance, explainability of AI systems is required for all stakeholders, such as system designers and end users, to make informed decisions. In particular, stakeholders need to know how black-box AI works and how accountable and trustworthy the AI-enabled decisions might be. Although there are existing works on “opening” the black-box of AI through interpretable models, post-hoc explanations, and visualization techniques, there is inadequate work on how to tailor explainable AI to different user groups (inclusivity), how to make explainable AI actionable (empowerment), or how explainable AI helps measure and understand the safety and reliability of AI systems (responsibility). This Special Issue (SI) aims at featuring cutting-edge research in Human-centered XAI (HCXAI) around three areas: inclusivity, empowerment, and responsibility.

Scope, Description, and More Information

This special issue invites submissions that feature original research on the design, development, and evaluation of innovative interactive intelligent systems for explainable AI. Submissions should directly speak to one or more of the *three* areas listed below. They should also demonstrate relevance to TiiS around the two core characteristics of an interactive intelligent system: machine *intelligence* and user *interaction*. Interdisciplinary research is highly encouraged.

Specific areas of interest include, but are not limited to:

- *Inclusive XAI*: design, development, and evaluation of novel interactive explainable AI technologies and systems that address the needs of different user groups, such as data scientists, researchers, end users, administrators, and regulators; individual differences, and culture differences;
- *Empowerment of XAI*: design, development, and evaluation of interactive explainable AI technologies and systems that improve user actionability, e.g., knowing when and how to seek recourse or how to incorporate stakeholder voices in design.
- *Responsible XAI*: design, development, and evaluation of interactive explainable AI technologies and systems to measure FATE (Fairness, Accountability, Transparency, and Ethics), and demonstrate how such metrics impact the safety and reliability of AI systems.

Schedule

Paper Submission: February 21, 2021
First author notification: May 15, 2021

Expected publication: December, 2021

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