Reflection on intelligent systems: towards a cross-disciplinary definition
University of Stuttgart, Interchange Forum for Reflecting on Intelligent Systems – IRIS
October 20-21, 2022 (Digital Workshop)

- What does it mean to reflect on intelligent systems?
- Which tools and methods are needed to successfully engage in (critical) reflection on intelligent systems?
- What is the purpose of this reflection, its outcome, and who is the target audience?
- Which lessons can we learn from discipline-internal reflection practices?
- To what extent can these lessons be “translated” into interdisciplinary collaborations, teaching, science-policy debates, and science communication to a broader public?

Taking these questions as a starting point for this digital workshop, we aim to take the first steps towards a cross-disciplinary definition of the notion of reflection on intelligent systems by approaching the topic of reflection from various interdisciplinary perspectives. The conceptual outline of our workshop is defined by the goals and targets of reflection or, more specifically, by its end-users and their needs. We thus invite submissions that investigate empirical or theoretical work on the challenges and desiderata of reflection practices across different levels:

Theme 1: At a discipline-specific level, e.g., interpretability/introspection of intelligent systems. Why is reflection necessary if it does not improve performance? What are the ethical issues or catalysts of reflection at this level (e.g., bias, sustainability)?

Theme 2: At an interdisciplinary level: successful interdisciplinary collaboration requires a "translation" of the ontologies/methods of one discipline into the “language” of the other. While the outcome of reflection for interdisciplinary exchange likely shares features with discipline-specific reflection(s), the translation process reveals specific features that only "exist" at the intersection between different disciplines.

Theme 3: From one discipline to the public: yet another type of reflection is driven by this practical question: Why do we want the public to gain a deeper understanding of an intelligent system? And as a consequence, which aspects do we want the public to understand (clearly, not everything is necessary)? And what does the public want to know?

Special Theme: Reflection and Teaching

Teaching is one of the strongest driving forces for reflection. As educators, we all feel at some point that we have only really understood the subject through the preparation of a lecture and sharing it with a class. How does this deep understanding relate to the three-layer structuring of reflection defined above? Indeed, students are part of the public (theme 3), but they are also experts in their respective disciplines to some extent (theme 1). Besides, the reflection on intelligent systems in teaching can be seen as a form of the conceptual translation we engage in when collaborating with experts of other disciplines who have limited knowledge of our domain (theme 2).

Submissions

Submissions (2-page abstracts) should relate to one or multiple workshop themes. We particularly encourage submissions that report on unpublished empirical or theoretical work or present relevant aspects of already published work. As this is a workshop, working papers are welcome!
All submissions should be sent to reflection.workshop@iris.uni-stuttgart.de with a short bio by August 31, 2022. The participants will be notified of the acceptance by mid-September.

Shared Corpus on Reflection

As a unique feature of this workshop, we also aim to collect a corpus of scientific articles illustrating "good practices" in reflecting on intelligent systems. Therefore, we invite participants to submit, along with their abstracts, articles that the authors consider to be examples of good practices on reflection, along with a brief description of the motivation for their choice. At the workshop, we will then summarize the findings of our corpus collection -- ideally as a trigger to prompt discussions and joint projects on the topic of reflection with interested participants.

Organizers

This two-day online event is hosted by the University of Stuttgart, Interchange Forum for Reflecting on Intelligent Systems (IRIS), and organized by Gabriella Lapesa, Lukas Erhard, Curtis Runstedler, and Sierra Kaiser.

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