

UCAI 2023: Workshop on User-Centered Artificial Intelligence

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ABSTRACT

The proliferation of AI-based techniques poses a range of new challenges for the design and engineering of intelligent and adaptive systems since they tend to act as black boxes and do not offer the user sufficient transparency, control, and interaction opportunities, which are considered major goals of user-centered design in the HCI field. This workshop aims at sharing and discussing recent developments at the intersection of HCI and AI, and at exploring novel methodological, technical, and interaction approaches. Researchers and practitioners with diverse disciplinary backgrounds can and should contribute to addressing the challenges in this emerging field of human-centered artificial intelligence.

CCS CONCEPTS

• **Human-centered computing** → **Human computer interaction (HCI)**; • **Computing methodologies** → **Artificial intelligence**.

KEYWORDS

Artificial intelligence, Human-computer interaction, Human-centered AI

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1 THEMATIC SCOPE

The *Workshop on User-Centered Artificial Intelligence (UCAI 2023)* will address topics at the intersection of human-computer interaction (HCI) and artificial intelligence (AI) with the aim of strengthening user-centered aspects in the design of AI-based systems. A major topic in this regard is empowering users by making intelligent

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and adaptive systems more transparent, interpretable and scrutable. From a user- and activity-centric perspective, it is furthermore important to design the user interaction with intelligent systems in their application context in a more effective, comprehensible and accountable manner, thus engaging users beyond checking final system outputs. Counteracting potential biases in data and algorithms is another important goal to increase trustworthiness and fairness. There are also methodological gaps in evaluating AI-based systems with respect to user experience, acceptability and ethical impact. Therefore, the workshop welcomes a range of topics of interest, including but not limited to:

- transparent and explainable AI-based systems
- personalization, recommendation and adaptation
- UI paradigms for interacting with intelligent algorithms
- presentation and interaction design for AI-based systems
- user control of intelligent algorithms
- mixed-initiative interaction
- user-centric evaluation of AI-based systems
- ethical and legal aspects of AI-based systems
- folk theories and user beliefs about AI-based systems
- techniques to audit AI-based systems
- hybrid intelligence systems
- effects of generative AI models on research, practice, and education
- application of AI-based systems to predict human states and behaviors

2 GOALS, PLANNED PROGRAM AND TARGET AUDIENCE

The *goals* of this workshop are strengthening the community of researchers working at the intersection of AI and HCI in general and especially within the GI and the HCI section for this important and emerging area of research by fostering knowledge exchange, facilitating networking, and providing a platform to discuss recent developments relevant to the topics of the workshop.

Following a series of successful workshops since 2020 [1–3], the fourth edition of the UCAI workshop is planned as an interactive half-day on-site event in conjunction with the MuC 2023 conference in Rapperswil. We will publish a Call for Papers on the workshop website (<https://ucaai-sig.org/events/ucai23/>) and distribute it accordingly. We will accept position papers of 2 pages in length (two-column format, excluding references), submitted via *ConfTool* until June 16th, 2023, describing preliminary research

findings or already published contributions, lessons learned, demos of current or visions of future user-centered AI-based systems, and broader research agendas of individuals and collectives. The organization committee will decide about the acceptance based on the relevance of the papers for the workshop. In accordance with the timeline published for MuC 2023, acceptance notifications will be sent out July 3rd, 2023. Camera-ready versions will be due July 20th, 2023.

At the workshop, we will focus on knowledge exchange, networking, and discussion, for which the accepted papers will serve as a point of departure. We will identify common topics in advance, and discuss them (possibly in smaller groups) in order to characterize important elements, finding main opportunities, and identifying pain points.

After the workshop, we plan to publish accepted papers in the *MuC Workshop Proceedings* accessible through the GI digital library, as we have done in previous editions of the workshop.

We welcome participants both from academia and industry. The *target audience* of the workshop are, for instance, HCI practitioners and developers that aim at using AI techniques as well as researchers including (PhD) students active at the intersection of HCI and AI, or in one of the specific disciplines.

3 ORGANIZERS

The workshop will be organized by the GI SIG *Nutzerzentrierte Künstliche Intelligenz* (NKI). Members of the organization committee are:

- **Daniel Buschek** is a professor for mobile intelligent user interfaces at the University of Bayreuth. His research combines Human-Computer-Interaction and Machine Learning / Artificial Intelligence, both to improve user interfaces with computational methods and to render intelligent systems more interactive and explorable. Previously, he worked at the Media Informatics Group at LMU Munich, where he also completed his doctoral studies, as well as at the University of Glasgow and Aalto University, Helsinki.
- **Julian Frommel** is an assistant professor in Interaction/Multimedia at Utrecht University. His overall research goal is to contribute to the theoretical understanding, design, and implementation of interactive digital systems that provide safe, healthy, meaningful, and enjoyable experiences for users. Specifically, his research also investigates how interactive systems can help mitigate the negative outcomes of interacting with systems, such as being targeted or exposed to toxicity and harassment in digital spaces.
- **Hanna Hauptmann** is an assistant professor at the Human-Centered Computing Group of Utrecht University. She previously worked at the Data Analysis and Visualization group of the University of Konstanz on human-centered design for interactive intelligent systems by providing, among others, explainable AI, personalization, persuasion, guidance, and gamification. She received her doctoral degree at the Technical University of Munich on building socio-technical systems for healthy nutrition.
- **Hendrik Heuer** is a postdoctoral researcher at the University of Bremen. His research focuses on Human-Computer

Interaction and Machine Learning. He is working on ways to fight disinformation and to make text more accessible.

- **Benedikt Loepp** is a postdoctoral researcher at the University of Duisburg-Essen. His main research interests are at the intersection of HCI and machine learning, focusing on recommender systems, especially interactive approaches and preference elicitation, but also, on novel methods to provide decision support in AI-based systems.

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