



# AI-HCI 2021

## 2ND INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE IN HCI

Jointly held under one management and one registration with HCI International 2021

<http://2021.hci.international/ai-hci>

**HCI International 2021**

24-29 July 2021

The Conference will be  
held virtually

### Chairs

**Helmut Degen** ([helmut.degen@siemens.com](mailto:helmut.degen@siemens.com))  
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The conference aims to bring together academics, practitioners and students to exchange results from academic and industrial research, as well as industrial experiences, on the use of Artificial Intelligence technologies to enhance Human-Computer Interaction. In particular, the following areas of research are relevant: (i) Ethical and trustworthy AI to provide a fair and unbiased experience; (ii) Evolution of Human-Centered AI including models, processes and modalities; (iii) Processes, methods and technical frameworks in the area of generative UX / UI design, automatic creation and adaptation of user interfaces; (iv) Consumer and industrial application domains including healthcare, finance, -market places, manufacturing and robots, (semi-) autonomous transportation, personal and industrial dashboards, personalized education and learning, and security.

The conference is targeted at individuals and organizations who have performed research or developed industrial applications in the area of AI in HCI. The conference is also targeted at individuals and organizations which want to learn from those results, so they can (re-)use them in research or industrial applications.

### Indicative topics/keywords of the broad spectrum of issues to be addressed under an HCI perspective:

- **Ethical and trustworthy AI**
  - Identifying and addressing biases and potential conflicts such as fairness, privacy, equity, diversity, power assignment and distribution, norms, values / believes
  - Explainable AI, transparency, trust, and fairness
- **Human-Centered AI**
  - Models: human modeling, social models, dialog / interaction models, technology models
  - Processes, tools, methods, user involvement, user research, evaluation, AI technology assessment and customization, standards
  - Interaction modalities and devices: visual, 2D / 3D, augmented reality, simulations, digital twin, conversational interfaces, multimodal interfaces
- **Generative UX/UI design**
  - Process: goal settings, model selection / training, data acquisition, learning and improvement, refinement.
  - Method and tools: user model, data model, interaction model, domain model, adaptability model, evaluation model
  - Generative UI design frameworks
- **Consumer and industrial application domains**
  - Healthcare: diagnostics support, treatment suggestions incl. explainability, evidence and confidence
  - Financial applications: trends, bids, risk assessments, recommendations
  - Market places: match finding, trending, bidding, offering
  - Manufacturing & robots: human-robot teaming, human-robot interaction, safety
  - (Semi-) Autonomous transportation: monitoring and control, explainability, evidence and confidence, ethical conflict resolution, safety
  - Personal and industrial dashboards: status, deviations, recommendations for preventive and corrective actions including explainability, evidence and confidence
  - Personalized education and learning: assessment, planning, content selection, progress measurements
  - Security: predicting and identifying vulnerabilities, predicting and suggesting mitigations, selecting and executing mitigations, monitoring incidents

Conference proceedings published by



Submission deadlines are available at the HCII 2021 website:

<http://2021.hci.international/submissions>