AIS 2024
6TH INTERNATIONAL CONFERENCE ON ADAPTIVE INSTRUCTIONAL SYSTEMS

Jointly held under one management and one registration with HCI International 2024

https://2024.hci.international/ais

Chairs
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HCI International 2024

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The goal of the Adaptive Instructional Systems (AIS) Conference, affiliated to the HCI International conference, is to understand the theory and enhance the state-of-practice for a set of technologies (tools and methods) called adaptive instructional systems. AISs are defined as artificially intelligent, computer-based systems that guide learning experiences by tailoring instruction and recommendations based on the goals, needs, preferences, and interests of each individual learner or team in the context of domain learning objectives. The interaction between individual learners or teams of learners with AIS technologies is a central theme of this conference. AISs observe user behaviors to assess progress toward learning objectives and then act on learners and their learning environments (e.g., problem sets or scenario-based simulations) with the goal of optimizing learning, performance, retention and transfer of learning to work environments.

The focus of this conference on instructional tailoring of learning experiences highlights the importance of accurately modeling learners to accelerate their learning, boost the effectiveness of AIS-based experiences, and to precisely reflect their long term competence in a variety of domains of instruction. Conference participants examine modeling, interaction design and standards to facilitate research and development of effective and efficient learning using AISs.

AIS Conference participants support the adoption and advancement of products that use artificial intelligence and advanced technologies to help people learn. Stakeholders include AIS product and service providers, instructional designers, instructors, trainers, learning and development organizations, teachers and school districts, learning engineers and scientists, researchers, foundations, and government agencies.

Authors share their expertise in machine-based instruction including aspects of adaptation, augmentation, and interaction design. They share their visions and findings about AIS technologies (e.g. intelligent tutoring systems, intelligent mentors, and personal assistants for learning) and propose standards to improve the portability, extensibility, and interoperability of AIS technologies with each other and other instructional technologies. AIS Conference participants seek to identify standards for authoring, delivery, interaction design, real-time management, and evaluation of AIS technologies supporting domain classifications: cognitive, affective, psychomotor, and group instruction.

The AIS Conference has been largely supported by members of the AIS Community of Practice, a business alliance with the mission to promote the development and adoption of effective AIS solutions. If you are an AIS provider, user, researcher, or developer, we encourage you to engage with HCII AIS conference participants to learn more about the AIS Community of Practice and its mission by visiting the AIS Community of Practice Twitter page at #AISCoP_Learn or by contacting Bob Sottilare at bob.sottilare@soartech.com

The related topics include, but are not limited to:

- Instructional Theories Applied to Adaptive Instruction
- Adaptive Systems for Learning, Education, and Training
- Adaptive Tools and Methods for Individual Learners and Teams
- Designing Intelligent Tutoring System (ITS) User Interfaces (UIs) for Personalization
- Assessment of Learner and Team States for Adaptive Instructional Decisions
- Quantitative and Qualitative Measures of Learners during Adaptive Instruction
- Sensors and Data Sources for Assessment during Adaptive Instruction
- Modeling Learner States, Patterns, and Trends
- Theoretical Frameworks for Adaptive Instruction
- Learning Engineering
- User-Centered Design Principles for Intelligent Tutoring Systems (ITSs)
- Optimizing Learning through Superior User Experiences (UXs)
- Role of Artificial Intelligence in Adaptive Instruction

- Authoring Adaptive Instructional Systems (AISs) for Cognitive, Affective, Psychomotor, and Collaborative Tasks
- Interaction Design for Effective Adaptive Instructional Systems
- Conceptual Models and Interoperability Standards for Adaptive Instructional Systems
- Augmentation Technologies (Tools and Methods) for Adaptive Instruction
- AIS User Interfaces (UIs) for Enhanced Usability, Learnability, Satisfaction, and Accessibility
- Evaluating the Effectiveness of Adaptive Instructional Systems
- Ethical Use of Artificial Intelligence in Adaptive Learning Experiences
- Interoperability and Compatibility of AIS Technologies
- Adaptive Training & Education for:
  - Psychomotor Tasks in Live, Virtual, Augmented, and Mixed Reality Environments
  - Medical Diagnoses and Intervention
  - STEM (Science, Technology, Engineering, and Mathematics) Education
  - Professional Development

Conference proceedings published by

Submission deadlines are available at the HCII 2024 website:

http://2024.hci.international/submissions