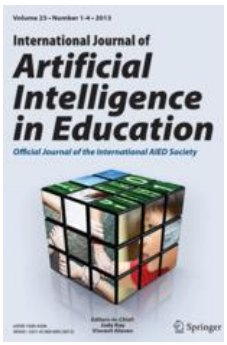
Call For papers



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Special Issue on User modeling to Support Personalization in Enhanced Educational Settings

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Motivation & Scope

Personalization has a crucial role in fostering effective, active and efficient learning. This is especially true for informal contexts of lifelong learning, with a particular need for learner control. Personalization of learning environments has a long history and the research has evolved as new technological innovations have appeared. It requires a careful modeling of users (learner, educator, coach) and context (with new features coming from enhanced interaction environments). Nowadays, this calls for interoperability.

However, in the current state of the art, there are no established ways to easily create effectively personalized learning systems that reliably enhance learning outcomes. One key is the creation of a suitable user model to represent the learner's current needs. Some open issues include standardization of open learner models for an extended range of available learners' interaction features and interoperability with external learning services. The learner modeling should be able to represent learner's affective states, needs, behavior, and context. Another broad research area addresses personalization strategies and techniques, considering not only the learner model, but the whole learning experience to integrate the modeling of contextual information from ambient intelligence devices, going beyond data available from conventional desktop interaction.

This special issue will bring together a body of current research on the ways that user modeling and associated artificial intelligence techniques can drive the personalization to enhance learning, by building systems that are sensitive to the learners and their context. The scope includes: intelligent tutoring systems, learning management systems, personal learning environments, serious games, agent-based learning environments, and others. We especially welcome work on learners' interactions (e.g., sensor detection of affect in

context), diverse technological deployments (including web, mobiles, tablets, tabletops) and the recently possibility of personalized learning in massive open online courses (MOOCs).

Key for this special issue is the focus on learner modeling and the personalization process. The scope includes (but is not limited to) the topics:

- User Modeling to support affective computing
- User Modeling to support ambient intelligence
- User Modeling to support personalization within MOOCs
- User Modeling to support adaptive mobile learning
- User Modeling to support personalization within serious games
- Learner features and context awareness as input for the modeling
- Social and educational issues to be modeled
- Open-corpus educational systems
- Successful methods and techniques for user modeling
- Impact of reusability, interoperability, scalability in user modeling
- Evaluation of the user modeling
- Relevant personalization effects
- Relevant sources of personalization

Thus, in this special issue we are looking for contributions from researchers and practitioners concerned with modeling users' needs in the new and evolving educational settings that are widening the diversity of learning contexts and issues to be considered. Many sub-fields related to AIED (user modeling and adaptation, knowledge representation, CSCL, instructional design, serious games, etc.) are relevant, whether from the perspective of computer science, psychology, intercultural studies or other related fields.

Papers submitted to this special issue should situate their work with respect to relevant research in both user modeling and education.

Authors should consult the usual IJAIED guidelines.

The catalyst for this special issue was the workshop series PALE (Personalization Approaches in Learning Environments) run each year at the User Modeling, Adaptation and Personalization (UMAP) conference since 2011.

Important Dates

Notification of Intent (Abstracts due)	Oct 31, 2014
Submission of Complete Manuscripts	Dec 31, 2014
Notification of Acceptance	Feb 28, 2015
Submission of Camera Ready Manuscript	May 31, 2015
Publication of Special Issue	Fall 2015

Note: As each paper is accepted, it will appear on Springer Online First.