

# Semantic Technologies for User Modeling and Adaptation

Special Issue of the User Modeling and User Adapted Interaction Journal

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<http://www.kbs.uni-hannover.de/~henze/semtech.html>

Recent trends in the semantic web focus on processing the *meaning* of information as an additional, rich source for the ultimate goal to answer information requests with appropriate, best fitting information. To find *appropriate* and *best fitting* information, measurements are required which need to take into account the specific information request, including the person behind the request, the personal setting, preferences, and context of the person.

To bring semantic technologies to its full potential, the capturing of the user's intention, and its modeling and representation in formats that comply with semantic standards are essential. This special issue of the User Modeling and User Adapted Interaction journal focuses on best practices, current research and promising trends for improving user modeling and adaptation with semantic technologies, and enhancing semantic technologies and applications with user modeling and adaptation techniques. Relevant topics of this special issue particularly include the following ones:

## Architectures:

- Architectural solutions for user modeling and adaptation in semantics-based, cooperative information applications
- User modeling and adaptation in architectures for web services and semantic web services
- Solutions for merging or bridging multiple adaptive applications

## User Models:

- Co-operation between de-centralized user models and user profiles, syndication of user profile information
- Semantic representation formats and languages for user intention modeling
- Privacy protection through semantic information
- User awareness and explanation strategies for transparent, user-controlled user modeling

### **Personalization Techniques:**

- Personalization as value-added services
- Enhancing personalization algorithms with semantic technologies
- Best practices and promising personalization techniques, re-usability and semantic descriptions of the personalization process
- User awareness and explanation strategies for transparent, user-controllable personalization
- Personalized access to semantic web applications
- Personalization strategies in web 2.0

### **Analysis**

- Web mining (content, linkage, usage) and learning for detecting user intentions
- Analysis of user networks and web communities

### **Enablers**

- Reasoning about semantic information and user demands
- Social nets and web communities for user modeling and adaptation
- Folksonomies, taxonomies and ontologies as enablers of the user modeling and personalization process

### **Applications**

- Applications demonstrating the power of semantic technologies for advanced user modeling and adaptation, e.g. personalized semantic search, the personal semantic desktop, personalized information filter, etc.

Submissions to this special issue need to enhance the state of the art in both disciplines, *semantic web and semantic technologies* as well as *user modeling and adaptation*. They are requested to bridge disciplines, e.g. by showing how user modeling and personalization benefits from semantic technologies, or how user modeling and adaptation techniques help to realize the semantic web.

### **How to Submit**

Submissions to the special issue should follow the UMUAI formatting guidelines and submission instructions available at [http://www.umuai.org/paper\\_submission.html](http://www.umuai.org/paper_submission.html).

Each submission should note that it is intended for the special issue on *Semantic Technologies for User Modeling and Adaptation*.

Potential authors are asked to notify by email the guest editors as soon as possible of their intent to submit an article (see below for the relevant contact

information). Sometime thereafter, but no later than a month prior to the submission deadline, they should submit a tentative title and a one-page abstract to allow for feedback and the formation of a reviewer panel.

UMUAI is an archival journal that publishes mature and substantiated research results on the dynamic adaptation of computer systems to their human users, and the role that a model of the system about the user plays in this context. Many articles in UMUAI are quite comprehensive and describe the results of several years of work. Consequently, UMUAI gives "unlimited" space to authors (so long as what they write is important). Authors whose paper exceeds 40 pages in journal format (including illustrations and references) are however requested to supply a short justification upon submission that explains why a briefer discussion of their research results would not be advisable.

## **Review Process**

Submissions will undergo the normal review process, and will be reviewed by three established researchers selected from a panel of reviewers formed for the special issue.

## **Tentative Schedule:**

**Submission deadline:** April 30, 2008

**Notification to authors:** July 31, 2008

**Publishing Date:** One year after the submission deadline

## **Guest Editors**

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If you have any questions do not hesitate to ask the guest editors Nicola Henze (henze@kbs.uni-hannover.de) or Gerd Stumme (stumme@cs.uni-kassel.de).