

# Preface

The study of the field of user modeling (UM) has resulted in significant amounts of theoretical work, as well as practical experience, in developing UM-based applications in traditional areas of human-computer interaction and tutoring systems. Further, it promises to have an enormous impact on recent developments in areas like information filtering, e-commerce, adaptive presentation techniques, and interface agents.

A user model is an explicit representation of properties of a particular user, which allows the system to adapt diverse aspects of its performance to individual users' needs. Techniques for UM have been developed and evaluated by theoreticians and practitioners in a variety of fields, including artificial intelligence, education, psychology, cognitive science, linguistics, and human-computer interaction.

The International Conferences on User Modeling constitute the major forum for presentation and discussion of both the latest developments in academic research on all aspects of user modeling and industrial experience in deploying adaptive systems in real-world applications. This volume contains the proceedings of the Eighth International Conference on User Modeling (UM 2001), held in Sonthofen, Germany. It follows UM99 (Banff, Canada), UM97 (Sardinia, Italy), UM96 (Hawaii, USA), UM94 (Hyannis, USA), UM92 (Dagstuhl, West Germany), UM90 (Hawaii, USA) and UM86 (Maria Laach, West Germany).

Until now, the proceedings of the conference have been published with university publishers. After discussions within UM Inc., it was decided from now on to publish the proceedings volume with one of the major publishing companies, to ensure wider availability of the volume in libraries and archives. After careful consideration Springer-Verlag was chosen.

The UM 2001 program includes tutorials, invited talks, technical paper and poster sessions, a doctoral consortium, workshops, and system demonstrations. There were a total of 79 technical submissions from 20 countries.

The submissions were reviewed by at least three, and in some cases by even five members of the program committee. The review process included discussions among the reviewers, and, ultimately, 19 submissions were accepted as full papers, resulting in a 24% acceptance rate. Another 20 submissions were accepted as posters.

Eight of the accepted full papers (highlighted in the table of contents by “(\*)”) were nominated by the program committee as candidates for the two outstanding paper awards:

- The Best Research Paper prize of \$500, sponsored by Kluwer Publishers, publisher of the User Modeling and User-Adapted Interaction (UMUAI) journal.
- The Best Application Paper prize of \$500, sponsored by HumanIT GmbH.

Three invited talks provided insight into important issues, applications and techniques for UM:

- *Tailoring Privacy to the User's Needs* by Alfred Kobsa,
- *Heavyweight Applications of Lightweight User Models: A Look at Collaborative Filtering, Recommender Systems, and Real-Time Personalization* by Joseph A. Konstan, and
- *Eye Tracking: A Rich Source of Information for User Modeling* by Sandra Marshall.

An integral part of the conference was the Doctoral Consortium. UM 2001 received 26 submissions for the Doctoral Consortium, 17 of which were accepted. Twelve of these have been published in the Doctoral Consortium section of this volume. The other five were submitted and accepted as papers or posters and appear in the corresponding sections of the volume.

This volume contains 19 full papers, summaries of the 20 poster presentations, contributions from the invited speakers, as well as summaries of 12 student presentations accepted at the doctoral symposium.

In addition to the contributions presented in this volume, the UM 2001 program featured three tutorials:

- *User Modeling for Adaptive User Interfaces* by Mark Maybury,
- *Student Modeling for Adaptive Web-Based Educational Systems* by Peter Brusilovsky, and
- *Personalization for E-Commerce* by Anthony Jameson.

Another major part of the UM 2001 program were the seven workshops, whose proceedings can be accessed via the web site of User Modeling Inc. (<http://www.um.org>). The workshops topics were:

- 3rd Workshop on *Adaptive Hypertext and Hypermedia*, organized by Paul De Bra, Peter Brusilovsky, and Alfred Kobsa.
- 2nd Workshop on *Attitude, Personality, and Emotions in User-Adapted Interaction*, organized by Fiorella de Rosis.
- Workshop on *User Modeling for Context-Aware Applications*, organized by Marcus Specht and Tom Gross.
- Workshop on *Empirical Evaluations of Adaptive Systems*, organized by Stephan Weibelzahl, David Chin, and Gerhard Weber.
- Workshop on *Machine Learning, Information Retrieval, and User Modeling*, organized by Ayse Göker, Fabio Abbattista, Ross Wilkinson, and Giovanni Semeraro.
- Workshop on *Machine Learning for User Modeling*, organized by Ralph Schäfer, Martin E. Müller, and Sofus Attila Macskassy.
- Workshop on *Personalization in Future TV*, organized by Liliana Ardissono and Yassine Faihe.

## Acknowledgements

Putting together a program for UM 2001 was a difficult undertaking, and this year's conference owed its high quality to many people. The members of the Program Committee deserve great credit, for the considerable effort in reviewing the submissions, for their dedication in writing detailed and high-quality reviews, for their participation in the selection of invited speakers and the winners of the best paper awards.

Liliana Ardissono, Italy	David Benyon, UK
Ben du Boulay, UK	Peter Brusilovsky, USA
Susan Bull, Canada	Sandra Carberry, USA
David Chin, USA	Gerhard Fischer, USA
Abigail Gertner, USA	Brad Goodman, USA
Russ Greiner, Canada	Eric Horvitz, USA
Anthony Jameson, Germany	Paul Kamsteeg, The Netherlands
Judy Kay, Australia	Alfred Kobsa, USA
Neal Lesh, USA	Diane Litman, USA
Mark Maybury, USA	Michael McTear, UK
Antonija Mitrovic, New Zealand	Riichiro Mizoguchi, Japan
Ann Nicholson, Australia	Toshikazu Nishimura, Japan
Cecile Paris, Australia	Charles Rich, USA
Fiorella de Rosis, Italy	John Self, UK
Adelheit Stein, Germany	Carlo Tasso, Italy
Loren Terveen, USA	Wolfgang Wahlster, Germany
Ingrid Zukerman, Australia	

We would also like to thank the additional reviewers:

Fabio Abbattista, Italy	Taro Adachi, USA
Elisabeth Andre, Germany	Mathias Bauer, Germany
Joseph Beck, USA	Leo Burd, USA
Rogério DePaula, USA	Hal Eden, USA
Andy Gorman, USA	Jim Greer, Canada
Martin Klesen, Germany	Shin'ichi Konomi, USA
Gord McCalla, Canada	Eric Scharff, USA
Yunwen Ye, USA	

The Doctoral Consortium chair was Gordon McCalla, from the University of Saskatchewan, Canada. He was assisted by the following members of his committee:

Leila Alem, Australia	Paul Brna, UK
David Chin, USA	Robin Cohen, Canada
Cristina Conati, Canada	Helen Gigley, USA
Isabel Fernandez de Castro, Spain	Judy Kay, Australia
Frank Linton, USA	Riichiro Mizoguchi, Japan
Fiorella de Rosis, Italy	Gerhard Weber, Germany

## VIII Acknowledgements

Special thanks for providing financial support for graduate students to attend the UM 2001 doctoral consortium and the conference go to

- Dr. Helen Gigley and the Office of Naval Research, and
- UM Inc.

We would like to thank the University of Twente for creating and allowing us to use CyberChair (<http://www.cyberchair.org>), a free web-based application facilitating the paper submission and reviewing process.

We are grateful to the University of Texas at Arlington for supporting the electronic paper and review submission process. In particular, we want to thank Bharaneedharan Rathnasabapathy who installed and adapted CyberChair and fine-tuned the scripts for generating author notifications.

Special thanks are due to the local organizers of the conference at DFKI in Saarbrücken, Germany:

Andrea Placzkova  
Dietmar Dengler  
Gabriele Paul

who contributed in many ways to the preparation of the conference and to Eric Schwarzkopf for designing and maintaining the adaptive conference web-site.

Anthony Jameson has been the community spirit and memory of the UM conferences. He was a valuable source of expertise and encouragement and provided immediate responses to all of our questions and worries during the two years of preparation for this conference.

The UM 2001 conference was also made possible by generous contributions from our sponsors. These include: 7d AG (Germany), sponsor of the Conference Banquet; Atrada AG (Germany) and DFKI GmbH (Germany), sponsors of the conference organization and logistics; humanIT GmbH (Germany), sponsor of the Best Application Paper prize; Kluwer Academic Publishers, sponsor of the Best Research Paper prize; and the Trends in Cognitive Sciences Journal, which partially sponsored the invited talks.

May 2001

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Piotr Gmytrasiewicz  
Julita Vassileva