

# Lecture Notes in Artificial Intelligence 2702

Edited by J. G. Carbonell and J. Siekmann

Subseries of Lecture Notes in Computer Science

**Springer**

*Berlin*

*Heidelberg*

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Fiorella de Rosis (Eds.)

# User Modeling 2003

9th International Conference, UM 2003  
Johnstown, PA, USA, June 22-26, 2003  
Proceedings



Springer

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## Cataloging-in-Publication Data applied for

A catalog record for this book is available from the Library of Congress.

Bibliographic information published by Die Deutsche Bibliothek  
Die Deutsche Bibliothek lists this publication in the Deutsche Nationalbibliografie;  
detailed bibliographic data is available in the Internet at <<http://dnb.ddb.de>>.

CR Subject Classification (1998): H.5.2, I.2, H.5, H.4, I.6, J.4, J.5, K.4, K.6

ISSN 0302-9743

ISBN 3-540-40381-7 Springer-Verlag Berlin Heidelberg New York

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Springer-Verlag Berlin Heidelberg New York  
a member of BertelsmannSpringer Science+Business Media GmbH

<http://www.springer.de>

© Springer-Verlag Berlin Heidelberg 2003  
Printed in Germany

Typesetting: Camera-ready by author, data conversion by PTP-Berlin GmbH  
Printed on acid-free paper      SPIN: 10928677      06/3142      5 4 3 2 1 0

# Preface

The International User Modeling Conferences are the events at which research foundations are being laid for the personalization of computer systems. In the last 15 years, the field of user modeling has produced significant new theories and methods to analyze and model computer users in short- and long-term interactions. A user model is an explicit representation of properties of individual users or user classes. It allows the system to adapt its performance to user needs and preferences. Methods for personalizing human-computer interaction based on user models have been successfully developed and applied in a number of domains, such as information filtering, adaptive natural language and hypermedia presentation, tutoring systems, e-commerce and medicine. There is also a growing recognition of the need to evaluate the results of new user modeling methods and prototypes in empirical studies and a growing focus on evaluation methods.

New trends in HCI create new and interesting challenges for user modeling. While consolidating results in traditional domains of interest, the user modeling field now also addresses problems of personalized interaction in mobile and ubiquitous computing and adaptation to user attitudes and affective states. Finally, with the spread of user modeling in everyday applications and on the Web, new concerns about privacy preservation are emerging.

All these topics are covered in the proceedings of UM 2003, the 9th International Conference on User Modeling. This is the latest in a conference series begun in 1986, and follows recent meetings in Sonthofen (2001), Banff (1999), Sardinia (1997), Hawaii (1996) and Cape Cod (1994). Previous successes in user modeling research reflect the cooperation of researchers in different fields, including artificial intelligence, human-computer interaction, education, cognitive psychology and linguistics. User Modeling 2003 followed the tradition of the earlier International User Modeling Conferences in providing a forum in which researchers and practitioners with different backgrounds can exchange their complementary insights.

The UM 2003 conference included 3 invited talks, 26 full paper presentations, 28 poster presentations, 9 doctoral consortium presentations, 7 workshops and 2 tutorials. The full text of all presented papers appear in these proceedings, along with summaries of the posters and doctoral consortium papers and abstracts of the invited talks. UM 2003 received 106 submissions to the main technical program from 24 countries. The selection criteria were stringent, and the 24.5% acceptance rate for full papers is quite typical for the User Modeling series and its traditional approach to assembling a high-quality technical program. The following list provides the distribution of all submissions accepted for the technical program (papers, posters and doctoral consortium papers) by region of origin: Australia and New Zealand (6), Canada and USA (28), Europe and Israel (28), and Japan (1).

The three invited talks provided insights across a broad range of user modeling issues:

- *Adaptive Interfaces for Ubiquitous Web Access*, by Michael Pazzani;
- *Computers That Recognize and Respond to User Emotion*, by Rosalind Picard;
- *The Advantages of Explicitly Representing Problem Spaces*, by Kurt VanLehn.

In addition to the contributions featured in this volume, UM 2003 offered two tutorials:

- *Evaluating the Effectiveness of User Models by Experiments*, presented by David Chin;
- *Systems That Adapt to Their Users: An Integrative Overview*, presented by Anthony Jameson.

Seven workshops form the final major component of UM 2003. Their proceedings can be accessed via <http://www.um.org>, the website of User Modeling, Inc. The workshop topics were:

- Workshop on *Adaptive Hypermedia and Adaptive Web-Based Systems*, organized by Paul De Bra and Judy Kay;
- 3rd Workshop on *Assessing and Adapting to User Attitudes and Affect: Why, When and How?*, organized by Cristina Conati, Eva Hudlicka and Christine Lisetti;
- 2nd Workshop on *Empirical Evaluation of Adaptive Systems*, organized by Stephan Weibelzahl and Alexandros Paramythis;
- MLIRUM 2003: 2nd Workshop on *Machine Learning, Information Retrieval and User Modeling*, organized by Sofus Macskassy, Ross Wilkinson, Ayse Goker and Mathias Bauer;
- TV 2003: 3rd Workshop on *Personalization in Future TV*, organized by Liliana Ardissono and Mark Maybury;
- Workshop on *User and Group Models for Web-Based Adaptive Collaborative Environments*, organized by Jesús Boticario, Elena Gaudioso, Mathias Bauer and Gal Kaminka; and
- Workshop on *User Modelling for Ubiquitous Computing*, organized by Keith Cheverst, Berardina Nadja De Carolis and Antonio Krüger.

UM 2003 was hosted by the University of Pittsburgh under the auspices of User Modeling, Inc.

We hope that these proceedings will be a useful support both in discussing presentations at the conference and in communicating advances in the domain to those who were unable to attend. Organizing a conference is many months of work, which may make differences among the chairs emerge. In our case, harmonic and friendly sharing of duties was the principle and practice of our work.

## Acknowledgements

A great many people contributed to the high quality of this conference. We owe special thanks to the members of the Program Committee for their unstinting efforts in reviewing the paper and poster submissions, selecting the winners of the best paper awards, and selecting the invited speakers.

David Albrecht, Australia  
Liliana Ardissono, Italy  
Mathias Bauer, Germany  
Sandra Carberry, USA  
Noelle Carbonell, France  
Keith Cheverst, UK  
David Chin, USA  
Cristina Conati, Canada  
Piotr Gmytrasiewicz, USA  
Brad Goodman, USA  
Haym Hirsh, USA  
Kristina Höök, Sweden  
Eric Horvitz, USA  
Anthony Jameson, Germany  
Judy Kay, Australia

Antonio Krüger, Germany  
Diane Litman, USA  
Gordon McCalla, Canada  
Kathleen McCoy, USA  
Antonija Mitrovic, New Zealand  
Riichiro Mizoguchi, Japan  
Helen Pain, UK  
Cécile Paris, Australia  
Barry Smyth, Ireland  
Constantine Stephanidis, Greece  
Carlo Tasso, Italy  
Julita Vassileva, Canada  
Gerhard Weber, Germany  
Ingrid Zukerman, Australia

Alfred Kobsa, USA

We also thank the external reviewers:

Mitsuru Ikeda  
Akiko Inaba  
Carl Kadie

Akihiro Kashiara  
Frank Wittig

The Doctoral Consortium program was co-chaired by Sandra Carberry, USA and Cristina Conati, Canada. They were assisted by the following committee:

Joseph Beck, USA  
Susan Bull, UK  
Giuseppe Carenini, Canada  
Abigail Gertner, USA  
James Greer, Canada  
Eva Hudlicka, USA  
Neal Lesh, USA

Frank Linton, USA  
Christine Lisetti, USA  
Lisa Michaud, USA  
Eva Millán, Spain  
Tanja Mitrovic, New Zealand  
Jack Mostow, USA  
Kurt VanLehn, USA

Frank Wittig and Anthony Jameson, Germany co-chaired the efforts of the workshop organizers:

Liliana Ardissono, Italy  
Mathias Bauer, Germany

Jesus Boticario, Spain  
Keith Cheverst, UK

Cristina Conati, Canada  
Paul DeBra, The Netherlands  
Berardina Nadja De Carolis,  
Italy  
Elena Gaudio, Spain  
Ayse Goker, UK  
Eva Hudlicka, USA  
Gal Kaminka, USA  
Judy Kay, Australia  
Antonio Krüger, Germany

Christine Lisetti, USA  
Sofus Macskassy, USA  
Mark Maybury, USA  
Alexandros Paramythis,  
Austria  
Stephan Weibelzahl,  
Germany  
Ross Wilkinson, Australia

We also extend our thanks to

- The Local Advisory Committee, Jack Mostow, Christian Lebiere and Ken Koedinger;
- The Publicity Chair, Ayse Goker;
- Sergey Sosnosvsky for maintaining the conference website;
- Valeria Carofiglio, Angela Wagner and Mary Scott for helping us in managing the submissions and producing the proceedings;
- Susan Strauss Williams and Heather Frye for their assistance with financial planning and arrangements.

Special thanks to Julita Vassileva, Mathias Bauer and Anthony Jameson for helping to insure a continuity in the UM organization and for assisting with suggestions in critical situations.

Generous financial support provided by Microsoft Research made it possible for several doctoral students to attend the conference. And we are grateful to both Kluwer Academic Publishers for sponsoring the best paper award and to the James Chen family for sponsoring best student paper awards.

April 2003

Peter Brusilovsky  
Albert Corbett  
Fiorella de Rosis

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