

## Preface

This volume contains the proceedings of the Third International Workshop on Cooperative Information Agents, held in Uppsala, Sweden, July 31–August 2, 1999.

Modern information environments consist mainly of large, distributed and heterogenous resources which are connected via the Internet, Intranets, or virtual private networks. These environments are open and may dynamically change over time. To cope with such information environments means, in particular, to deal with uncertain, incomplete and vague information. The effective handling of uncertainty is critical in designing, understanding, and evaluating computational systems tasked with making intelligent decisions. It is also crucial to the ultimate success and broad application of information agents on the Internet, as well as in any industrial context. Moreover, any comfortable, reliable human-agent interaction via appropriate types of avatars, and the multi-dimensional representation of the information space available for individual users in the Internet, remains a challenging research topic. The same holds for efficient service mediation by systems of collaborating information agents. In particular, the research area of cooperative adaptive and mobile agents for information management on the Internet is still an uncharted territory in agent technology.

The interdisciplinary CIA workshop series covers the whole thematic range of intelligent and cooperative information agents. Each workshop will focus on a few selected themes of particular relevance and current interest. The CIA-99 workshop were built on the success of CIA-98 ('Learning, Mobility and Electronic Commerce for Information Discovery in the Internet', LNAI Series, Vol. 1435), and CIA-97 ('DAI meets Databases', LNAI Series, Vol. 1202). Main topics of the CIA-99 workshop were mobile information discovery, advances in collaboration, mediation and negotiation, as well as personal assistance and human-agent interaction. This workshop features 10 invited lectures and 16 regular papers selected from 46 submissions.

**Acknowledgements.** First of all, we gratefully acknowledge the financial support from our Co-Sponsors:

- DEUTSCHE TELEKOM AG, BERKOM GMBH, Berlin (Germany),
- GEORGE MASON UNIVERSITY, Fairfax, VA (USA),
- DAIMLER-CHRYSLER AG, Research & Technology, Berlin (Germany),
- ACTIVE ONLINE SYSTEMS LTD., London (UK), and
- AGENTLINK ESPRIT Network of Excellence for Agent-Based Computing.

The workshop has been organized in cooperation with the special interest group on Distributed Artificial Intelligence (DAI) of the German Computer Science Society and the Computer Science Department of Uppsala University (Sweden).

Moreover, we thank all members of the program committee and all external referees for their very careful work in reviewing and selecting the contributions.

## Program Committee

Sonia Bergamaschi	(University of Modena, Italy)
Wolfgang Benn	(Technical University of Chemnitz, Germany)
Hans-Dieter Burkhard	(Humboldt University of Berlin, Germany)
Brahim Chaib-draa	(Laval University, Canada)
Yves Demazeau	(Leibniz/IMAG/CNRS, France)
Frank Dignum	(University of Eindhoven, The Netherlands)
Innes Ferguson	(Active Online Systems, London, UK)
Klaus Fischer	(DFKI German AI Research Center Ltd., Germany)
Christian Freksa	(University of Hamburg, Germany)
Erol Gelenbe	(Duke University, USA)
Carl Hewitt	(MIT AI Lab, USA)
Mike Huhns	(University of South Carolina, USA)
Toru Ishida	(University of Kyoto, Japan)
Leonid A. Kalinichenko	(Russian Academia of Sciences, Russia)
Bart Kosko	(University of Southern California, USA)
Sarit Kraus	(University of Maryland, USA)
H.-J. Mueller	(Deutsche Telekom AG, R&D, Darmstadt, Germany)
Joerg P. Mueller	(John Wiley & Sons Corp., London, UK)
San Murugesan	(University of Western Sydney, Australia)
Pablo Noriega	(Institute for AI Research, Spain)
Moirra C. Norrie	(ETH Zurich, Switzerland)
Aris Ouksel	(University of Illinois at Chicago, USA)
Mike P. Papazoglou	(Tilburg University, The Netherlands)
Amit Sheth	(University of Georgia, USA)
Carles Sierra	(CSIC AI Research Lab, Catalonia, Spain)
Elizabeth Sonenberg	(University of Melbourne, Australia)
Kurt Sundermeyer	(Daimler-Chrysler AG, R&T, Berlin, Germany)
Katia Sycara	(Carnegie Mellon University, USA)
Peter Thomas	(UWE Bristol, UK)
Robert Tolksdorf	(Technical University of Berlin, Germany)
Jan Treur	(Vrije Universiteit Amsterdam, The Netherlands)
Christian Tschudin	(University of Uppsala, Sweden)
Mike Wooldridge	(QMW College, London, UK)

## General Chair

Matthias Klusch (DFKI German AI Research Center Ltd., Germany)

## Co-Chairs

Onn Shehory (Carnegie Mellon University, USA)  
Gerhard Weiß (Technical University of Munich, Germany)  
Larry Kerschberg (George Mason University, USA)

## **External Reviewers**

Ismailcem Arpinar  
Paolo Ciaccia  
Ariel Felner  
Merav Hadad  
Catholijn M. Jonker  
Ralf Kühnel  
Francisco J. Martin  
Ananddeep Pannu  
Terry Payne  
Klaus Schild  
Leon Sterling  
Maksim Tsvetovat

Cooperative Information Agents III

Third International Workshop, CIA'99 Uppsala, Sweden,

July 31 - August 2, 1999 Proceedings

Klusch, M.; Shehory, O.M.; Weiß, G. (Eds.)

1999, XII, 412 p., Softcover

ISBN: 978-3-540-66325-6