

# Preface

These are the proceedings of the Fifth International Workshop on Cooperative Information Agents, held in Modena, Italy, September 6-8, 2001.

Information agent technology has become one of the major key technologies for the Internet and the World Wide Web. It mainly emerged as a response to the challenges of cyberspace from both the technological and human user perspective. Development of information agents requires expertise from different research disciplines such as Artificial Intelligence (AI), advanced databases and knowledge base systems, distributed information systems, information retrieval, and Human Computer Interaction (HCI). The fifth international workshop on Cooperative Information Agents (CIA) continued the tradition by capturing the intrinsic interdisciplinary nature of the above research area by calling for contributions from different research communities, and by promoting open and informative discussions on all related topics.

In keeping with tradition, the workshop featured a sequence of regular and invited talks of excellence given by leading experts in the field. This year the topics of the talks are mainly on the challenges of information agents in the upcoming age of ubiquitous and pervasive computing. These challenges are in particular due to the necessity of an efficient utilization, evolution, and trust management of information agents for user-oriented information search, provision, and visualization in networked computing environments with small, mobile, and embedded devices. A different issue concerns the potential of agent-based support of massive distributed data warehousing worldwide.

As a novelty, the CIA 2001 workshop issued two awards for best paper and best system innovation to acknowledge particularly significant advances in research and development respectively, in the area of information agents. Regarding the *CIA System Innovation Award* each nominee, as signaled by the program committee during the review process, was requested to demonstrate a running prototype at the workshop to the jury of the award. Moreover, each paper submitted to CIA 2001 was considered for nomination for the *CIA Best Paper Award* by the program committee. Both awards were given at the end of the workshop.

Based on the success of former workshops and the fact that the workshop is now recognized as a well-established event in the area of agent-based computing, this year's organizers decided to hold the CIA workshop as a stand-alone event for the second time in its history. In past years, the event was mainly co-located with other major conferences in the domains of agent technology (Autonomous Agents 1998, ICMAS 2000), and Artificial Intelligence (IJCAI 1999). The CIA 2001 event was held in collaboration with the 28th conference on Very Large Databases (VLDB) to continue providing a bridge between the areas of research in databases and intelligent agents.

CIA 2001 featured 5 invited, 13 regular, and 12 short papers selected from 63 submissions. This represented an 15% increase in the number of submissions compared with the last year's workshop, which confirms the success of the CIA

workshop and its force of attraction, independent of any co-location. The result of the peer-review of all contributions is included in this volume, rich in interesting, inspiring, and advanced work in research and development of intelligent information agents worldwide. All workshop proceedings have been published by Springer-Verlag as Lecture Notes in Artificial Intelligence volumes 1202 (1997), 1435 (1998), 1652 (1999), and 1860 (2000), respectively.

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September 2001

Matthias Klusch and Franco Zambonelli

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