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On the Move to Meaningful Internet Systems 2002: CoopIS, DOA, and ODBASE

Confederated International Conferences
CoopIS, DOA, and ODBASE 2002
Proceedings



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Message from General Co-chairs

As large, complex and networked yet intelligent information systems become the focus and norm for computing, software issues covering a wide range of issues such as data and web semantics, distributed objects, web services, databases, workflow, cooperation, ubiquity, interoperability, and mobility for the development of internet- and intranet-based systems in organizations and for e-business need to be addressed in a fundamental way. This federated conference event is unique in that it provides an opportunity for researchers and practitioners to understand these recent developments within their respective as well as broader contexts. It colocated for the first time three related, complementary and successful conferences: DOA, covering infrastructure-enabling technologies, distributed objects, Internet computing, protocols, etc.; ODBASE, covering web semantics, XML databases, ontologies etc.; and, finally, CoopIS, covering interoperation, workflow systems, knowledge management, etc. Each of these conferences treats its topics along multiple axes of theory (i.e., underlying theoretical solutions), design and development (e.g., technical and conceptual solutions), and applications (e.g., case studies and industrial solutions).

The three conferences share the distributed and ubiquity aspects of modern computing systems, and the resulting application/pull created by the Internet and the so-called "Semantic Web". For DOA 02 the primary emphasis is on the distributed object infrastructure; for ODBASE 02 it is on the knowledge bases and methods required for enabling semantical use; and for CoopIS 02 it is on the interaction of such technologies and methods within an organization or network of organizations. As they must, these subject areas overlap and, in fact, the organizers specifically looked for submissions in any of the areas that also emphasized the envisaged mutual impact among relevant issues. To stimulate this "cross-pollination," a common program of representative keynote speakers, a joint tutorial program, and a common Industry Track that ran parallel to the entire event were assembled.

We received many submissions for the three conferences (293 in total: 111 for CoopIS 02, 106 for DOA 02, and 76 for ODBASE 02). Not only can we claim much success in attracting so many scientific papers, but from this harvest it was possible to compose a high-quality and representative cross-section of research worldwide in the different areas covered by the federated event. Among these submitted papers, indeed only a small number could be selected (i.e., around a 25% acceptance rate). The reviewing process was excellent and each paper was reviewed by at least three experts.

On behalf of the organization committee, we really would like to thank all the people who were directly or indirectly involved in the setup of these federated conferences and therefore made it a success. We must in particular be grateful to our seven PC co-chairs who, together with their many PC members, did an excellent job in selecting the best papers. Of course handling the submission, re-

viewing, and notification of such a large number of papers today is not possible without suitable software and we need to thank our CyberChair expert, Kwong Lai. We would like to thank especially Ugur Cetintemel, the Publicity Chair, who made this federated event known to a very large public. Finally, our particular thanks go to Jan Demey (who built the registration system) and Daniel Meersman (who is running the conference secretariat).

We do hope that you enjoyed this federated event and that we may see you all again next year in Europe.

August 2002

Robert Meersman
Zahir Tari
Michael Papazoglou

CoopIS 02 PC Co-chairs' Message

Welcome to the Proceedings of the Tenth International Conference on Cooperative Information Systems (CoopIS 02). This year, CoopIS was part of a federated conference in Irvine, California, jointly with the International Symposium on Distributed Objects and Applications (DOA) and the International Conference on Ontologies, Databases, and Applications of Semantics for large-scale Information Systems (ODBASE). The theme of the 2002 Federated Conference was "On the Move to Meaningful Internet Systems and Ubiquitous Computing."

We received a large number of submissions this year and we had to reject many good ones. Of the 111 papers reviewed by the program committee, 30 papers were accepted for presentation and publication. In addition, 12 submissions were accepted as poster papers in the proceedings, with a short presentation at the conference.

We are happy to report that cooperative information systems continues to be a vigorous area of research for our "core" community in databases and related areas. In addition, several "new" areas of interest (new to CoopIS) are emerging. Examples of traditional CoopIS areas of interest include query processing, interoperability, workflow, work process, and business/transactions. There are examples of increasing overlap between cooperative information systems and other areas of research in mobility, agents, data and system quality issues, peer-to-peer, and ubiquitous environments. We believe this successful "broadening" of CoopIS points to the increasing relevance of the research area as well as the corresponding growth of the community.

We would like to acknowledge a number of people who made CoopIS such a growing success. First, we want to thank the authors of all the submitted papers and conference attendees, since they are the representatives of the CoopIS community. Without a vigorous community there cannot be a successful conference. Second, we thank the PC members who reviewed the papers and provided valuable feedback to the authors. Third, we would like to thank the federated conference organizers for the professional management of the electronic paper submission and review process. In particular, we recognize the efforts of Prof. Zahir Tari and Kwong Yuen Lai of RMIT University, Australia.

Thank you and we hope you enjoyed the conference and the papers.

August 2002

Stefano Spaccapietra
Calton Pu

DOA 02 PC Co-chairs' Message

Welcome to the Proceedings of the Fourth International Symposium on Distributed Objects and Applications (DOA). There is increasing consensus among IT researchers and practitioners about the importance and potential of distributed object computing (DOC) technologies. It's also clear that there have been significant intellectual and commercial advances in this area in recent years. DOC technologies provide capabilities for use in various application domains, including aerospace, banking, process control, telecommunications, medical systems, and many other domains. They are also now offering practical, real-life production solutions to a host of technical problems, including quality-of-service enforcement and interoperability across different software, hardware, and network platforms. DOC systems are being built according to different paradigms and architectures, such as OMG's CORBA, Sun's J2EE, Microsoft's .Net, and other request broker principles and implementations, and contingent technologies such as Sun's Java-based active objects and messaging services, to provide a basis for building complex distributed applications.

Among the 106 submissions to DOA 2002, 28 papers were selected for inclusion in the technical program of the conference and 24 papers were selected for presentation in an interactive poster session at the conference. Every paper was reviewed by at least three members of the program committee. Each paper was judged according to its technical merit, originality, presentation quality, and relevance to the conference topics. The final program spans the following topics related to DOC technologies:

- Object request broker enhancements
- Web services
- Distributed object scalability and heterogeneity
- Dependability, security, and assurance
- Reflection and reconfiguration
- Mobility
- Real-time scheduling and performance
- Component-based applications

We would like to express our deepest appreciation to the authors of the submitted papers, the program committee members for their diligence in reviewing the submissions, the attendees for their participation, and finally to the members of the organizing committee for their efforts towards making DOA 2002 a successful conference.

August 2002

Rachid Guerraoui
Joe Loyall
Douglas Schmidt

ODBASE 02 PC Co-chairs' Message

Welcome to the First International Conference on Ontologies, Databases, and Applications of Semantics for Large-Scale Information Systems (ODBASE 02). ODBASE conferences present a new forum for addressing semantic issues in large-scale networked information systems, such as internet and intranet systems. ODBASE 02 has a special interest in gathering researchers and practitioners from multiple disciplines (such as web semantics, databases, knowledge management, and ontologies) and exchanging ideas and research results on semantic issues and their roles in ubiquitous computing. As the world heads towards larger-scale repositories of structured, semistructured, and unstructured information, the need to understand, capture, and utilize the semantics of these data is of growing interest. The first ODBASE conference was dedicated towards building more meaningful internet systems.

We were pleased to present a high-quality technical program. Seventy-six papers were submitted to ODBASE this year. The submissions were from more than 10 countries. Of these, only 21 full papers were accepted as the regular research papers. We were fortunate to have 40 program committee members who assisted us by giving very detailed reviews. A key aspect of ODBASE 02 was that we brought the worlds of semantic webs, ontologies, and databases together in a single high-quality forum. In addition to the regular papers, we accepted 4 poster papers where authors were able to give brief descriptions of their research. Finally, we would like to thank Kwong Yuen Lai who did an amazing amount of work in facilitating the online PC meeting, reviews, and technical program development.

August 2002

Karl Aberer
Ling Liu

Organization Committee

CoopIS 02, DOA 02 and ODBASE 02 were organized by RMIT University (School of Computer Science and Information Technology), UCI, Vrije University of Brussels (Department of Computer Science) and the University of California at Irvine (Department of Computer and Electrical Engineering).

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