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# On the Move to Meaningful Internet Systems 2005: CoopIS, DOA, and ODBASE

OTM Confederated International Conferences  
CoopIS, DOA, and ODBASE 2005  
Agia Napa, Cyprus, October 2005  
Proceedings, Part I

**1** Part I



**DOA**



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## OTM 2005 General Co-chairs' Message

The General Chairs of OnTheMove 2005, Agia Napa, Cyprus, are happy to observe that the conference series that was started in Irvine, California, in 2002, and continued in Catania, Sicily, in 2003, and in the same location in Cyprus last year, clearly supports a scientific concept that attracts a representative selection of today's worldwide research in distributed, heterogeneous and autonomous yet meaningfully collaborative computing, of which the Internet and the WWW are its prime epitomes.

Indeed, as such large, complex and networked intelligent information systems become the focus and norm for computing, it is clear that there is an acute need to address and discuss in an integrated forum the implied software and system issues as well as methodological, theoretical and application issues. As we all know, email, the Internet, and even video conferences are not sufficient for effective and efficient scientific exchange. This is why the OnTheMove (OTM) Federated Conferences series has been created to cover the increasingly wide yet closely connected range of fundamental technologies such as data and Web Semantics, distributed objects, Web services, databases, information systems, workflow, cooperation, ubiquity, interoperability, and mobility. OTM aspires to be a primary scientific meeting place where all aspects for the development of internet- and intranet-based systems in organizations and for e-business are discussed in a scientifically motivated way. This fourth 2005 edition of the OTM Federated Conferences therefore again provides an opportunity for researchers and practitioners to understand and publish these developments within their individual as well as within their broader contexts.

The backbone of OTM is formed by the co-location of three related, complementary and successful main conference series: DOA (Distributed Objects and Applications, since 1999), covering the relevant infrastructure-enabling technologies; ODBASE (Ontologies, DataBases and Applications of SEmantics, since 2002), covering Web semantics, XML databases and ontologies; and CoopIS (Co-operative Information Systems, since 1993), covering the application of these technologies in an enterprise context through, e.g., workflow systems and knowledge management. Each of these three conferences encourages researchers to treat their respective topics within a framework that incorporates jointly (a) theory, (b) conceptual design and development, and (c) applications, in particular case studies and industrial solutions.

Following and expanding the model created in 2003, we again solicited and selected quality workshop proposals to complement the more "archival" nature of the main conferences with research results in a number of selected and more "avant garde" areas related to the general topic of distributed computing. For instance, the so-called Semantic Web has given rise to several novel research areas combining linguistics, information systems technology, and artificial intelligence,

such as the modeling of (legal) regulatory systems and the ubiquitous nature of their usage. We were glad to see that in 2005 under the inspired leadership of Dr. Pilar Herrero, several of earlier successful workshops re-emerged with a second or even third edition (notably WOSE, MIOS-INTEROP and GADA), and that 5 new workshops could be hosted and successfully organized by their respective proposers: AWeSOMe, SWWS, CAMS, ORM and SeBGIS. We know that as before, their audiences will mutually productively mingle with those of the main conferences, as is already visible from the overlap in authors!

A special mention for 2005 is again due for the second and enlarged edition of the highly successful Doctoral Symposium Workshop. Its 2005 Chairs, Dr. Antonia Albani, Dr. Peter Spyns, and Dr. Johannes Maria Zaha, three young and active post-doc researchers defined an original set-up and interactive formula to bring PhD students together: they call them to submit their research proposals for selection; the resulting submissions and their approaches are presented by the students in front of a wider audience at the conference, where they are then independently analyzed and discussed by a panel of senior professors (this year they were Domenico Beneventano, Jaime Delgado, Jan Dietz, and Werner Nutt). These successful students also get free access to “all” other parts of the OTM program, and only pay a minimal fee for the Doctoral Symposium itself (in fact their attendance is largely sponsored by the other participants!). The OTM organizers expect to further expand this model in future editions of the conferences and so draw an audience of young researchers into the OTM forum.

All three main conferences and the associated workshops share the distributed aspects of modern computing systems, and the resulting application-pull created by the Internet and the so-called Semantic Web. For DOA 2005, the primary emphasis stayed on the distributed object infrastructure; for ODBASE 2005, it became the knowledge bases and methods required for enabling the use of formal semantics, and for CoopIS 2005, the topic was the interaction of such technologies and methods with management issues, such as occur in networked organizations. These subject areas naturally overlap and many submissions in fact also treat an envisaged mutual impact among them. As for the earlier editions, the organizers wanted to stimulate this cross-pollination by a “shared” program of famous keynote speakers: this year we got no less than Erich Neuhold (Emeritus, Fraunhofer/IPSI), Stefano Ceri (Politecnico di Milano), Doug Schmidt (Vanderbilt University), and V.S. Subrahmanian (University of Maryland)! We also encouraged multiple event attendance by providing “all” authors, also those of workshop papers, with free access or discounts to one other conference or workshop of their choice.

We received a total of 360 submissions for the three main conferences and a whopping 268 (compared to the 170 in 2004!) in total for the workshops. Not only can we therefore again claim success in attracting an increasingly representative volume of scientific papers, but such a harvest of course allows the program committees to compose a higher quality cross-section of current research in the areas covered by OTM. In fact, in spite of the larger number of submissions, the Program Chairs of each of the three main conferences decided to accept only

approximately the same number of papers for presentation and publication as in 2003 and 2004 (i.e., average 1 paper out of 4 submitted, not counting posters). For the workshops, the acceptance rate varies but was much stricter than before, about 1 in 2-3, to almost 1 in 4 for GADA and MIOS. Also for this reason, we continue to separate the proceedings in two books with their own titles, with the main proceedings in two volumes, and we are grateful to Springer for their suggestions and collaboration in producing these books and CD-ROMs. The reviewing process by the respective program committees as usual was performed very professionally and each paper in the main conferences was reviewed by at least three referees, with email discussions in the case of strongly diverging evaluations. It may be worthwhile to emphasize that it is an explicit OTM policy that all conference program committees and chairs make their selections completely autonomously from the OTM organization itself. Continuing a costly but nice tradition, the OTM Federated Event organizers decided again to make all proceedings available as books and/or CD-ROMs to all participants of conferences and workshops, independently of one's registration.

The General Chairs are once more especially grateful to all the many people directly or indirectly involved in the set-up of these federated conferences and in doing so made this a success. Few people realize what a large number of individuals have to be involved, and what a huge amount of work, and sometimes risk, the organization of an event like OTM entails. Apart from the persons in their roles mentioned above, we therefore in particular wish to thank our 8 main conference PC Co-chairs (DOA 2005: Ozalp Babaoglu, Arno Jacobsen, Joe Loyall; ODBASE 2005: Michael Kifer, Stefano Spaccapietra; CoopIS 2005: Mohand-Said Hacid, John Mylopoulos, Barbara Pernici), and our 26 workshop PC Co-chairs (Antonia Albani, Lora Aroyo, George Buchanan, Lawrence Cave-don, Jan Dietz, Tharam Dillon, Erik Duval, Ling Feng, Aldo Gangemi, Annika Hinze, Mustafa Jarrar, Terry Halpin, Pilar Herrero, Jan Humble, David Martin, Gonzalo Médez, Aldo de Moor, Hervé Panetto, María S. Pérez, Víctor Robles, Monica Scannapieco, Peter Spyns, Emmanuel Stefanakis, Klaus Turowski, Esteban Zimányi). All, together with their many PCs, members did a superb and professional job in selecting the best papers from the large harvest of submissions. We also thank Laura Bright, our excellent Publicity Chair for the second year in a row, our Conference Secretariat staff and Technical Support Daniel Meersman and Jan Demey, and last but not least our hyperactive Publications Chair and loyal collaborator of many years, Kwong Yuen Lai.

The General Chairs gratefully acknowledge the logistic support and facilities they enjoy from their respective institutions, Vrije Universiteit Brussel (VUB) and RMIT University, Melbourne.

We do hope that the results of this federated scientific enterprise contribute to your research and your place in the scientific network... We look forward to seeing you again at next year's edition!

August 2005

Robert Meersman, Vrije Universiteit Brussel, Belgium  
Zahir Tari, RMIT University, Australia  
(General Co-chairs, OnTheMove 2005)



# Organization Committee

The OTM (On The Move) 2005 Federated Conferences, which involve CoopIS (Cooperative Information Systems), DOA (Distributed Objects and Applications) and ODBASE (Ontologies, Databases and Applications of Semantics), are proudly supported by RMIT University (School of Computer Science, Information Technology) and Vrije Universiteit Brussel (Department of Computer Science) and Interop.

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