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# On the Move to Meaningful Internet Systems: OTM 2008 Workshops

OTM Confederated International Workshops and Posters  
ADI, AWeSoMe, COMBEK, EI2N, IWSSA, MONET,  
OnToContent+QSI, ORM, PerSys, RDDS, SEMELS,  
and SWWS 2008  
Monterrey, Mexico, November 9-14, 2008  
Proceedings

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Library of Congress Control Number: 2008938152

CR Subject Classification (1998): H.2, H.3, H.4, C.2, H.5, I.2, D.2, K.4

LNCS Sublibrary: SL 3 – Information Systems and Application, incl. Internet/Web and HCI

ISSN	0302-9743
ISBN-10	3-540-88874-8 Springer Berlin Heidelberg New York
ISBN-13	978-3-540-88874-1 Springer Berlin Heidelberg New York

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© Springer-Verlag Berlin Heidelberg 2008  
Printed in Germany

Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India  
Printed on acid-free paper SPIN: 12556069 06/3180 5 4 3 2 1 0

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# OTM 2008 General Co-chairs' Message

Dear OnTheMove Participant, or Reader of these Proceedings,

The OnTheMove 2008 event in Monterrey, Mexico, 9–14 November, further consolidated the growth of the conference series that was started in Irvine, California in 2002, and held in Catania, Sicily in 2003, in Cyprus in 2004 and 2005, in Montpellier in 2006, and in Vilamoura in 2007. The event continues to attract a diversifying and representative selection of today's worldwide research on the scientific concepts underlying new computing paradigms, which, of necessity, must be distributed, heterogeneous and autonomous yet meaningfully collaborative.

Indeed, as such large, complex and networked intelligent information systems become the focus and norm for computing, there continues to be an acute and increasing need to address and discuss in an integrated forum the implied software, system and enterprise issues as well as methodological, semantical, theoretical and applicational issues. As we all know, email, the Internet, and even video conferences are not sufficient for effective and efficient scientific exchange. The OnTheMove (OTM) Federated Conferences series has been created to cover the scientific exchange needs of the community/ies that work in the broad yet closely connected fundamental technological spectrum of data and web semantics, distributed objects, web services, databases, information systems, enterprise workflow and collaboration, ubiquity, interoperability, mobility, grid and high-performance computing.

OnTheMove aspires to be a primary scientific meeting place where all aspects for the development of such Internet- and Intranet-based systems in organizations and for e-business are discussed in a scientifically motivated way. This sixth edition of the OTM Federated Conferences event again provided an opportunity for researchers and practitioners to understand and publish these developments within their individual as well as within their broader contexts.

Originally the federative structure of OTM was 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 (Cooperative Information Systems, since 1993) covering the application of these technologies in an enterprise context through e.g., workflow systems and knowledge management. In 2006 a fourth conference, GADA (Grid computing, high-performAnce and Distributed Applications) was added to this as a main symposium, and last year the same happened with IS (Information Security). Both of these started as successful workshops at OTM, the first covering the large-scale integration of heterogeneous computing systems and data resources with the aim of providing a global computing space,

the second covering the issues of security in complex Internet-based information systems.

Each of these five 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 spite of OnTheMove switching sides of the Atlantic, seven of our earlier successful workshops (notably AweSOMe, SWWS, ORM, OnToContent, MONET, PerSys, RDDS) re-appeared in 2008 with a third or even fourth edition, sometimes by alliance with other newly emerging workshops, and that no fewer than seven brand-new independent workshops could be selected from proposals and hosted: ADI, COMBEK, DiSCo, IWSSA, QSI and SEMELS. Workshop audiences productively mingled with each other and with those of the main conferences, and there was considerable overlap in authors. The OTM organizers are especially grateful for the leadership, diplomacy and competence of Dr. Pilar Herrero in managing this complex and delicate process for the fifth consecutive year.

Unfortunately however in 2008 the number of quality submissions for the OnTheMove Academy (formerly called Doctoral Consortium Workshop), our “vision for the future” in research in the areas covered by OTM, proved too low to justify a 2008 edition in the eyes of the organizing faculty. We must however thank Antonia Albani, Sonja Zaplata and Johannes Maria Zaha, three young and active researchers, for their efforts in implementing our interactive formula to bring PhD students together: research proposals are submitted for evaluation; selected submissions and their approaches are (eventually) to be presented by the students in front of a wider audience at the conference, and intended to be independently and extensively analyzed and discussed in public by a panel of senior professors. Prof. Em. Jan Dietz, the Dean of the OnTheMove Academy, also is stepping down this year, but OnTheMove is committed to continuing this formula with a new Dean and peripatetic faculty.

All five main conferences and the associated workshops shared the distributed aspects of modern computing systems, and the resulting application-pull created by the Internet and the so-called Semantic Web. For DOA 2008, the primary emphasis stayed on the distributed object infrastructure; for ODBASE 2008, it has become the knowledge bases and methods required for enabling the use of formal semantics; for CoopIS 2008, the focus as usual was on the interaction of such technologies and methods with management issues, such as occur in networked organizations, for GADA 2008, the main topic was again the scalable integration

of heterogeneous computing systems and data resources with the aim of providing a global computing space, and in IS 2008 the emphasis was on information security in the networked society. These subject areas overlapped in a scientifically natural fashion and many submissions in fact also treated 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 were proud to announce Dan Atkins of the U.S. National Science Foundation and the University of Michigan, Hector Garcia-Molina of Stanford, Rick Hull of IBM T.J. Watson Lab, Ted Goranson of Sirius-Beta and of Paradigm Shift, and last but not least Cristina Martinez-Gonzalez of the European Commission with a special interest in more future scientific collaboration between the EU and Latin America, as well as emphasizing the concrete outreach potential of new Internet technologies for enterprises anywhere.

This year the registration fee structure strongly encouraged multiple event attendance by providing *\*all\** main conference authors with free access or discounts to *\*all\** other conferences or workshops (workshop authors paid a small extra fee to attend the main conferences). In both cases the price for these combo tickets was made lower than in 2007 in spite of the higher organization costs and risks!

We received a total of 292 submissions for the five main conferences and 171 submissions in total for the 14 workshops. The numbers are about 30% lower than for 2007, which was not unexpected because of the transatlantic move of course, and the emergent need to establish the OnTheMove brand in the Americas, a process that will continue as we proceed in the coming years. But, not only may we indeed again claim success in attracting an increasingly representative volume of scientific papers, many from US, Central and South America already, but these numbers of course allow the program committees to compose a high-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 2006 and 2007 (i.e., average 1 paper out of 3-4 submitted, not counting posters). For the workshops, the acceptance rate varies but the aim was to stay as strict as before, consistently about 1 accepted paper for 2-3 submitted. We have separated the proceedings into three books with their own titles, two for the main conferences and one for the workshops, and we are grateful to Springer for their suggestions and collaboration in producing these books and CDROMs. The reviewing process by the respective program committees was again performed very professionally, and each paper in the main conferences was reviewed by at least three referees, with arbitrated email discussions in the case of strongly diverging evaluations. It may be worthwhile emphasizing that it is an explicit OnTheMove policy that all conference program committees and chairs make their selections completely autonomously from the OTM organization itself. The OnTheMove Federated Event organizers again made all proceedings available on a CDROM to all



participants of conferences resp. workshops, independently of their registration to a specific conference resp. workshop. Paper proceedings were on request this year, and incurred an extra charge.

The General Chairs were once more especially grateful to the many people directly or indirectly involved in the setup of these federated conferences. Few people realize what a large number of people have to be involved, and what a huge amount of work, and in 2008 certainly also financial 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 17 main conference PC co-chairs:

GADA 2008	Dennis Gannon, Pilar Herrero, Daniel Katz, María S. Pérez
DOA 2008	Mark Little, Alberto Montresor, Greg Pavlik
ODBASE 2008	Malu Castellanos, Fausto Giunchiglia, Feng Ling
CoopIS 2008	Johann Eder, Masaru Kitsuregawa, Ling Liu
IS 2008	Jong Hyuk Park, Bart Preneel, Ravi Sandhu, André Zúquete
50 Workshop PC Co-chairs	Stefan Jablonski, Olivier Curé, Christoph Bussler, Jörg Denzinger, Pilar Herrero, Gonzalo Méndez, Rainer Unland, Pieter De Leenheer, Martin Hepp, Amit Sheth, Stefan Decker, Ling Liu, James Caverlee, Ying Ding, Yihong Ding, Arturo Molina, Andrew Kusiak, Hervé Panetto, Peter Bernus, Lawrence Chung, José Luis Garrido, Nary Subramanian, Manuel Noguera, Fernando Ferri, Irina Kondratova, Arianna D'ulizia, Patrizia Grifoni, Andreas Schmidt, Mustafa Jarrar, Terry Halpin, Sjr Nijssen, Skevos Evripidou, Roy Campbell, Anja Schanzenberger, Ramon F. Brena, Hector Ceballos, Yolanda Castillo, Achour Mostefaoui, Eiko Yoneki, Elena Simperl, Reto Krummenacher, Lyndon Nixon, Emanuele Della Valle, Ronaldo Menezes, Tharam S. Dillon, Ernesto Damiani, Elizabeth Chang, Paolo Ceravolo, Amandeep S. Sidhu

All, together with their many PC members, did a superb and professional job in selecting the best papers from the large harvest of submissions.

We must all be grateful to Ana Cecilia Martinez-Barbosa for researching and securing the local and sponsoring arrangements on-site, to Josefa Kumpfmüller for many useful scientific insights in the dynamics of our transatlantic move, and to our extremely competent and experienced Conference Secretariat and technical support staff in Antwerp, Daniel Meersman, Ana-Cecilia (again), and Jan Demey, and last but not least to our apparently never-sleeping Melbourne Program Committee Support Team, Vidura Gamini Abhaya and Anshuman Mukherjee.

The General Chairs gratefully acknowledge the academic freedom, logistic support and facilities they enjoy from their respective institutions, Vrije Universiteit Brussel (VUB) and RMIT University, Melbourne, without which such an enterprise would not be feasible.

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 event!

August 2008

Robert Meersman  
Zahir Tari

# Organization Committee

OTM (On The Move) is a federated event involving a series of major international conferences and workshops. These proceedings contain the papers presented at the OTM 2008 Federated Workshops, consisting of the following workshops: ADI 2008 (1st International Workshop on Ambient Data Integration), AWeSoMe 2008 (4th International Workshop on Agents and Web Services Merging in Distributed Environments), COMBEK 2008 (1st International Workshop on Community-Based Evolution of Knowledge-Intensive Systems), EI2N 2008 (3rd International Workshop on Enterprise Integration, Interoperability and Networking), IWSSA 2008 (7th International Workshop on System/Software Architectures), MONET 2008 (3rd International Workshop on MOBILE and NETworking Technologies for social applications), OnToContent 2008 (3rd International Workshop on Ontology Content and Evaluation in Enterprise) + QSI 2008 (1st International Workshop on Quantitative Semantic methods for the Internet), ORM 2008 (International Workshop on Object-Role Modeling), PerSys 2008 (3rd International Workshop on Pervasive Systems), RDDS 2008 (3rd International Workshop on Reliability in Decentralized Distributed Systems), SEMELS 2008 (1st International Workshop on Semantic Extensions to Middleware: Enabling Large Scale Knowledge Applications), and SWWS 2008 (4th International IFIP Workshop on Semantic Web and Web Semantics).

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# Table of Contents

## Posters of the 2008 CoopIS (Cooperative Information Systems) International Conference

Real-Time Reasoning Based on Event-Condition-Action Rules . . . . .	1
<i>Ying Qiao, Xiang Li, Hongan Wang, and Kang Zhong</i>	
PASS It ON (PASSION): An Adaptive Online Load-Balancing Algorithm for Distributed Range-Query Specialized Systems . . . . .	3
<i>Ioannis Konstantinou, Dimitrios Tsoumakos, and Nectarios Koziris</i>	
Dynamic Source Selection to Handle Changes of User's Interest in Continuous Query . . . . .	6
<i>Kosuke Ohki, Yousuke Watanabe, and Hiroyuki Kitagawa</i>	
The (Similarity) Matrix Reloaded . . . . .	8
<i>Avigdor Gal</i>	
Enabling Flexible Execution of Business Processes . . . . .	10
<i>S. Jablonski, M. Faerber, F. Jochaud, M. Götz, and M. Iglér</i>	
Collaborative Environment for Engineering Simulations with Integrated VR Visualization . . . . .	12
<i>Ismael H.F. Santos, Alberto B. Raposo, and Marcelo Gattass</i>	
A Method for Searching Keyword-Lacking Files Based on Interfile Relationships . . . . .	14
<i>Tetsutaro Watanabe, Takashi Kobayashi, and Haruo Yokota</i>	
Really Simple Security for P2P Dissemination of Really Simple Syndication . . . . .	16
<i>Anwitaman Datta and Liu Xin</i>	
Mining and Analyzing Organizational Social Networks Using Minimum Spanning Tree . . . . .	18
<i>Victor Ströele A. Menezes, Ricardo Tadeu da Silva, Moisés Ferreira de Souza, Jonice Oliveira, Carlos E.R. de Mello, Jano Moreira de Souza, and Geraldo Zimbrão</i>	
MADIK: A Collaborative Multi-agent ToolKit to Computer Forensics . . . . .	20
<i>Bruno W.P. Hoelz, Célia G. Ralha, Rajiv Geeverghese, and Hugo C. Junior</i>	
Modularizing Monitoring Rules in Business Processes Models . . . . .	22
<i>Oscar González, Rubby Casallas, and Dirk Deridder</i>	

An Optimal Approach for Workflow Staff Assignment Based on Hidden Markov Models .....	24
<i>Hedong Yang, Chaokun Wang, Yingbo Liu, and Jianmin Wang</i>	
Behavioral Compatibility of Web Services .....	27
<i>Zhangbing Zhou, Sami Bhiri, Walid Gaaloul, Lei Shu, and Manfred Hauswirth</i>	
A Reverse Order-Based QoS Constraint Correction Approach for Optimizing Execution Path for Service Composition .....	29
<i>Kaijun Ren, Nong Xiao, Jinjun Chen, and Junqiang Song</i>	

**Posters of the 2008 ODBASE (Ontologies, DataBases, and Applications of Semantics) International Conference**

Data Mining of Specific-Domain Ontology Components .....	31
<i>J.R.G. Pulido, M.A. Aréchiga, and M.E.C. Espinosa</i>	
Distributed Data Mining by Means of SQL Enhancement .....	34
<i>Marcin Gorawski and Ewa Pluciennik</i>	
Construction and Querying of Relational Schema for Ontology Instances Data .....	36
<i>Maciej Falkowski and Czesław Jędrzejek</i>	
Evaluation of the Navigation through Image Parts in the ImageNotion Application .....	38
<i>Andreas Walter, Gabor Nagypal, and Simone Braun</i>	
Instance-Based Ontology Matching Using Regular Expressions .....	40
<i>Katrin Zaiß, Tim Schlüter, and Stefan Conrad</i>	

**Workshop on Ambient Data Integration (ADI)**

ADI 2008 PC Co-chairs' Message .....	43
--------------------------------------	----

**Architectures**

Modelling ETL Processes of Data Warehouses with UML Activity Diagrams .....	44
<i>Lilia Muñoz, Jose-Norberto Mazón, Jesús Pardillo, and Juan Trujillo</i>	
Implementing Conceptual Data Integration in Process Modeling Methodologies for Scientific Applications .....	54
<i>Bernhard Volz</i>	
Theoretical and Practical Challenges of Integrating Ecosystem Data ....	64
<i>M. Hauhs, B. Trancón y Widemann, and O. Archner</i>	

## Methods for Data Integration

The Health Problems of Data Integration .....	65
<i>Avigdor Gal</i>	
Computing Path Similarity Relevant to XML Schema Matching .....	66
<i>Amar Zerdazi and Myriam Lamolle</i>	
Improving Search and Navigation by Combining Ontologies and Social Tags .....	76
<i>Silvia Bindelli, Claudio Criscione, Carlo A. Curino, Mauro L. Drago, Davide Eynard, and Giorgio Orsi</i>	

## Workshop on Agents and Web Services Merging in Distributed Environments (AWeSoMe)

AWESOME 2008 PC Co-chairs' Message .....	87
------------------------------------------	----

## Agents, Grid and Applications

Teaching about Madrid: A Collaborative Agents-Based Distributed Learning Course .....	88
<i>José Luis Bosque, Pilar Herrero, and Susana Mata</i>	
The Principle of Immanence in GRID-Multiagent Integrated Systems ...	98
<i>Pascal Dugenie, Clement Jonquet, and Stefano A. Cerri</i>	
MASD: Towards a Comprehensive Multi-agent System Development Methodology .....	108
<i>T. Abdelaziz, M. Elammari, and C. Branki</i>	
A Mobile Device Based Multi-agent System for Structural Optimum Design Applications .....	118
<i>Cherif Branki, Tilmann Bitterberg, and Hanno Hildmann</i>	

## Agent Communication and Coordination

Discovering Pragmatic Similarity Relations between Agent Interaction Protocols .....	128
<i>Maricela Bravo and José Velazquez</i>	
On the Relevance of Organizational Structures for a Technology of Agreement .....	138
<i>Holger Billhardt, Roberto Centeno, Alberto Fernández, Ramón Hermoso, Rubén Ortiz, Sascha Ossowski, and Matteo Vasirani</i>	

Learning, Information Exchange, and Joint-Deliberation through Argumentation in Multi-agent Systems .....	150
<i>Santi Ontañón and Enric Plaza</i>	

## Web Services and SOA

A User-Centric Service Composition Approach .....	160
<i>Gabriela Vulcu, Sami Bhiri, Manfred Hauswirth, and Zhangbing Zhou</i>	
Towards Reliable SOA – An Architecture for Quality Management of Web Services .....	170
<i>Ingo J. Timm and Thorsten Scholz</i>	

## Workshop on Community-Based Evolution of Knowledge-Intensive Systems (COMBEK)

COMBEK 2008 PC Co-chairs' Message .....	181
-----------------------------------------	-----

## Early Afternoon Session

Semi-automated Consensus Finding for Meaning Negotiation .....	183
<i>Christophe Debruyne, Johannes Peeters, and Allal Zakaria Arrassi</i>	
On Supporting HCOME-3O Ontology Argumentation Using Semantic Wiki Technology .....	193
<i>Konstantinos Kotis</i>	

## Morning Session

Inferring Social Groups Using Call Logs .....	200
<i>Santi Phithakkitnukoon and Ram Dantu</i>	
Group Recommendation System for Facebook .....	211
<i>Enkh-Amgalan Baatarjav, Santi Phithakkitnukoon, and Ram Dantu</i>	

## Late Afternoon Session

Towards a Scalable and Collaborative Information Integration Platform and Methodology .....	220
<i>Felix Van de Maele and Alicia Díaz</i>	
Methodological Approach to Determine Appropriately Annotated Resources in Narrow Folksonomies .....	230
<i>Céline Van Damme, Stijn Christiaens, and Damien Trog</i>	

## **IFAC/IFIP Workshop on Enterprise Integration, Interoperability and Networking (EI2N)**

EI2N 2008 PC Co-chairs' Message .....	239
---------------------------------------	-----

### **Enterprise Networking**

Business-IT Alignment Domains and Principles for Networked Organizations: A Qualitative Multiple Case Study .....	241
<i>Roberto Santana Tapia, Maya Daneva, Pascal van Eck, Nicté-Há Castro Cárdenas, and Leida van Oene</i>	
The View-Constraint Duality in Database Systems, Software Engineering, and Systems Engineering .....	253
<i>John A. Springer and Edward L. Robertson</i>	

### **Enterprise Integration and Interoperability**

Mining Reference Process Models and Their Configurations .....	263
<i>Florian Gottschalk, Wil M.P. van der Aalst, and Monique H. Jansen-Vullers</i>	
Interoperability Maturity Models – Survey and Comparison .....	273
<i>Wided Guédria, Yannick Naudet, and David Chen</i>	
Using the Zachman Framework to Achieve Enterprise Integration Based-on Business Process Driven Modelling .....	283
<i>Javier Espadas, David Romero, David Concha, and Arturo Molina</i>	

### **Enterprise Modelling and Service Oriented Architecture**

Enterprise Modelling Based Services Orchestration .....	294
<i>Qing Li, Canqiang Li, and Yun Wang</i>	
Service Oriented Architecture vs. Enterprise Architecture: Competition or Synergy? .....	304
<i>Ovidiu Noran and Peter Bernus</i>	
SCEP-SOA: An Applicative Architecture to Enhance Interoperability in Multi-site Planning .....	313
<i>Karim Ishak, Bernard Archimède, and Philippe Charbonnaud</i>	

### **Workshop on System/Software Architectures (IWSSA)**

IWSSA 2008 PC Co-chairs' Message .....	323
----------------------------------------	-----



## Workshop Introduction – Requirements and Architectural Design

Semantic-Aided Interactive Identification of Reusable NFR Knowledge Fragments .....	324
<i>Claudia López, Hernán Astudillo, and Luiz Marcio Cysneiros</i>	
Aspect-Oriented Modeling of Quality Attributes .....	334
<i>Mónica Pinto and Lidia Fuentes</i>	
Improving Security of Oil Pipeline SCADA Systems Using Service-Oriented Architectures .....	344
<i>Nary Subramanian</i>	

## Evaluation

An Architecture to Integrate Automatic Observation Mechanisms for Collaboration Analysis in Groupware .....	354
<i>Rafael Duque, María Luisa Rodríguez, María Visitación Hurtado, Manuel Noguera, and Crescencio Bravo</i>	
A Case Study on Architectural Maturity Evaluation: Experience in the Consumer Electronics Domain .....	364
<i>Kangtae Kim</i>	
Evaluation of an Agent Framework for the Development of Ambient Computing .....	374
<i>Marcela D. Rodríguez and Jesús Favela</i>	

## Architectural Design Based on Components, Services and Patterns

Defining Re-usable Composite Aspect Patterns: An FDAF Based Approach .....	384
<i>Kun Tian, Kendra M.L. Cooper, Kunwu Feng, and Yan Tang</i>	
Implementation Variants of the Singleton Design Pattern .....	396
<i>Krzysztof Stencel and Patrycja Węgrzynowicz</i>	
Semantic Interactions for Context-Aware and Service-Oriented Architecture .....	407
<i>Mehdi Khouja, Carlos Juiz, Ramon Puigjaner, and Farouk Kamoun</i>	
ReWiSe: A New Component Model for Lightweight Software Reconfiguration in Wireless Sensor Networks .....	415
<i>Amirhosein Taherkordi, Frank Eliassen, Romain Rouvoy, and Quan Le-Trung</i>	

## Development

Tackling Automotive Challenges with an Integrated RE and Design Artifact Model . . . . .	426
<i>Birgit Penzenstadler</i>	
A Q-Learning-Based On-Line Planning Approach to Autonomous Architecture Discovery for Self-managed Software . . . . .	432
<i>Dongsun Kim and Sooyong Park</i>	
Developing Collaborative Modeling Systems Following a Model-Driven Engineering Approach . . . . .	442
<i>Jesús Gallardo, Crescencio Bravo, and Miguel Á. Redondo</i>	

## Architectural Design Based on Components, Services and Frameworks

Assessing Component's Behavioral Interoperability Concerning Goals . . .	452
<i>Weimin Ma, Lawrence Chung, and Kendra Cooper</i>	
A Reference Architecture for Automated Negotiations of Service Agreements in Open and Dynamic Environments . . . . .	463
<i>Manuel Resinas, Pablo Fernández, and Rafael Corchuelo</i>	
Towards Checking Architectural Rules in Component-Based Design . . . .	473
<i>Sebastian Herold</i>	

## Workshop on MOBILE and NETworking Technologies for Social Applications (MONET)

MONET 2008 PC Co-chairs' Message . . . . .	479
--------------------------------------------	-----

## Challenges and New Approaches for Social Networking

Personal Sphere Information, Histories and Social Interaction between People on the Internet . . . . .	480
<i>Maria Chiara Caschera, Fernando Ferri, and Patrizia Grifoni</i>	
Discovery of Social Groups Using Call Detail Records . . . . .	489
<i>Huiqi Zhang and Ram Dantu</i>	
PALASS: A Portable Application for a Location-Aware Social System . . . . .	499
<i>Martin Press, Daniel Goodwin, and Roberto A. Flores</i>	

## Studies and Applications of Multimodality

Toward the Development of an Integrative Framework for Multimodal Dialogue Processing .....	509
<i>Arianna D'Ulizia, Fernando Ferri, and Patrizia Grifoni</i>	
A Comparison of Microphone and Speech Recognition Engine Efficacy for Mobile Data Entry .....	519
<i>Joanna Lumsden, Scott Durling, and Irina Kondratova</i>	
A GRID Approach to Providing Multimodal Context-Sensitive Social Service to Mobile Users .....	528
<i>Massimo Magaldi, Roberto Russo, Luca Bevilacqua, Stefania Pierno, Vladimiro Scotto di Carlo, Fabio Corvino, Luigi Romano, Luisa Capuano, and Ivano De Furio</i>	

## Theories and Applications of Mobile Technology in Different Social Contexts

A Comparison of Pseudo-paper and Paper Prototyping Methods for Mobile Evaluations .....	538
<i>Joanna Lumsden and Ryan MacLean</i>	
A Model for Checking the Integrity Constraints of Mobile Databases ...	548
<i>Hamidah Ibrahim, Zarina Dzolkhifli, and Praveen Madiraju</i>	
Usability Issues of e-Learning Systems: Case-Study for Moodle Learning Management System .....	561
<i>Miroslav Minović, Velimir Štavljanin, Miloš Milovanović, and Dušan Starčević</i>	
CPL: Enhancing Mobile Phone Functionality by Call Predicted List ...	571
<i>Santi Phithakkitnukoon and Ram Dantu</i>	

## Workshop on Ontology Content and Evaluation in Enterprise(OnToContent)+ Quantitative Semantic Methods for the Internet (QSI)

OnToContent+QSI 2008 PC Co-chairs' Message .....	583
--------------------------------------------------	-----

## Benefits of Ontologies and Human Factors

Measuring the Benefits of Ontologies .....	584
<i>Tobias Bürger and Elena Simperl</i>	
Towards a Human Factors Ontology for Computer-Mediated Systems ...	595
<i>Panagiotis Germanakos, Mario Belk, Nikos Tsianos, Zacharias Lekkas, Constantinos Mourlas, and George Samaras</i>	

Ontology Development in Collaborative Networks as a Process of Social Construction of Meaning . . . . .	605
<i>Carla Pereira and António Lucas Soares</i>	

## Folksonomies and Community Aspects

Toward a Community Vision Driven Topical Ontology in Human Resource Management . . . . .	615
<i>Damien Trog, Stijn Christiaens, Gang Zhao, and Johanna de Laaf</i>	
Automatic Profiling System for Ranking Candidates Answers in Human Resources . . . . .	625
<i>Rémy Kessler, Nicolas Béchet, Mathieu Roche, Marc El-Bèze, and Juan Manuel Torres-Moreno</i>	

## Elements for Quantitative Semantics

Semantic Expansion of Service Descriptions . . . . .	635
<i>Christian Sánchez and Leonid Sheremetov</i>	
Tuning Topical Queries through Context Vocabulary Enrichment: A Corpus-Based Approach . . . . .	646
<i>Carlos M. Lorenzetti and Ana G. Maguitman</i>	
Measuring Heterogeneity between Web-Based Agent Communication Protocols . . . . .	656
<i>Maricela Bravo and José Velazquez</i>	

## Workshop on Object-Role Modeling (ORM)

ORM 2008 PC Co-chairs' Message . . . . .	667
------------------------------------------	-----

## Service Orientation

A Metamodel for Enabling a Service Oriented Architecture . . . . .	668
<i>Baba Piprani, Chong Wang, and Keping He</i>	
Service-Oriented Conceptual Modeling . . . . .	678
<i>Peter Bollen</i>	

## Temporal Modeling and Dynamic Rules

Temporal Modeling and ORM . . . . .	688
<i>Terry Halpin</i>	
Formal Semantics of Dynamic Rules in ORM . . . . .	699
<i>Herman Balsters and Terry Halpin</i>	

## Fact-Orientation and SBVR

Fact Orientation and SBVR: The Catalyst for Efficient and Fully Integrated Education .....	709
<i>Jos Vos</i>	
SBVR: A Fact-Oriented OMG Standard .....	718
<i>Peter Bollen</i>	

## Requirements Analysis and Quality Assurance

An Adaptable ORM Metamodel to Support Traceability of Business Requirements across System Development Life Cycle Phases .....	728
<i>Baba Piprani, Marlena Borg, Josée Chabot, and Éric Chartrand</i>	
Requirements Specification Using Fact-Oriented Modeling: A Case Study and Generalization .....	738
<i>Gabor Melli and Jerre McQuinn</i>	
A Model for Data Quality Assessment .....	750
<i>Baba Piprani and Denise Ernst</i>	

## Verbalization Issues

Verbalization for Business Rules and Two Flavors of Verbalization for Fact Examples .....	760
<i>Maurice Nijssen and Inge Lemmens</i>	
How to Avoid Redundant Object-References .....	770
<i>Andy Carver</i>	

## Advanced Constraints and Tool Demos

A Closer Look at the Join-Equality Constraint .....	780
<i>Gerhard Skagestein and Ragnar Normann</i>	

## Using Fact-Oriented Modeling Tools

Model Ontological Commitments Using ORM <sup>+</sup> in T-Lex .....	787
<i>Yan Tang and Damien Trog</i>	
DOGMA-MESS: A Tool for Fact-Oriented Collaborative Ontology Evolution .....	797
<i>Pieter De Leenheer and Christophe Debruyne</i>	
Evaluation and Enhancements for NORMA: Student User Suggestions .....	807
<i>Gordon C. Everest</i>	

## Workshop on Pervasive Systems (PerSys)

PerSys 2008 PC Co-chairs' Message .....	819
-----------------------------------------	-----

## PerSys Opening and Workshop Keynote

Learning, Prediction and Mediation of Context Uncertainty in Smart Pervasive Environments .....	820
<i>Sajal K. Das and Nirmalya Roy</i>	

## Middleware and Applications

Implicit Middleware: A Ubiquitous Abstract Machine .....	830
<i>T. Riedel, M. Beigl, M. Berchtold, C. Decker, and A. Puder</i>	
Uncertainty Management in a Location-Aware Museum Guide .....	841
<i>Pedro Damián-Reyes, Jesús Favela, and Juan Contreras-Castillo</i>	
Modeling Context Life Cycle for Building Smarter Applications in Ubiquitous Computing Environments .....	851
<i>Hyunjun Chang, Seokkyoo Shin, and Changshin Chung</i>	

## Frameworks and Platforms

Game Development Framework Based Upon Sensors and Actuators ....	861
<i>Ray van Brandenburg, Arie Horst, Bas Burgers, and Nirvana Meratnia</i>	
HTTPStream Platform – Low Latency Data for the Web .....	873
<i>Marios Tziakouris and Paraskevas Evripidou</i>	
Password Streaming for RFID Privacy .....	883
<i>Victor K.Y. Wu and Roy H. Campbell</i>	

## Workshop on Reliability in Decentralized Distributed Systems (RDDS)

RDDS 2008 PC Co-chairs' Message .....	893
---------------------------------------	-----

## Peer-to-Peer

Reliable Peer-to-Peer Semantic Knowledge Sharing System .....	894
<i>Abdul-Rahman Mawlood-Yunis</i>	
How to Improve the Reliability of Chord? .....	904
<i>Jacek Cichoń, Andrzej Jasiński, Rafał Kapelko, and Marcin Zawada</i>	

## Distributed Algorithms

A Performance Evaluation of $g$ -Bound with a Consistency Protocol Supporting Multiple Isolation Levels . . . . .	914
<i>R. Salinas, F.D. Muñoz-Escóí, J.E. Armendáriz-Iñigo, and J.R. González de Mendivil</i>	
Integrity Dangers in Certification-Based Replication Protocols . . . . .	924
<i>M.I. Ruiz-Fuertes, F.D. Muñoz-Escóí, H. Decker, J.E. Armendáriz-Iñigo, and J.R. González de Mendivil</i>	

## Workshop on Semantic Extensions to Middleware: Enabling Large Scale Knowledge (SEMELS)

SEMELS 2008 PC Co-chairs' Message . . . . .	935
---------------------------------------------	-----

## Extending Middleware with Semantics

Towards Semantically Enhanced Peer-to-Peer File-Sharing . . . . .	937
<i>Alan Davoust and Babak Esfandiari</i>	
Efficient Content Location in Massively Distributed Triplespaces . . . . .	947
<i>Kia Teymourian and Lyndon Nixon</i>	
Extending ESB for Semantic Web Services Understanding . . . . .	957
<i>Antonio J. Roa-Valverde and José F. Aldana-Montes</i>	

## Applications of Semantically Extended Middleware

Distributed Workflows: The OpenKnowledge Experience . . . . .	965
<i>Paolo Besana, Vivek Patkar, David Glasspool, and Dave Robertson</i>	
SD-Core: A Semantic Middleware Applied to Molecular Biology . . . . .	976
<i>Ismael Navas-Delgado, Amine Kerzazi, Othmane Chniber, and José F. Aldana-Montes</i>	
Towards Knowledge in the Cloud . . . . .	986
<i>Davide Cerri, Emanuele Della Valle, David De Francisco Marcos, Fausto Giunchiglia, Dalit Naor, Lyndon Nixon, Kia Teymourian, Philipp Obermeier, Dietrich Rebholz-Schuhmann, Reto Krummenacher, and Elena Simperl</i>	

## Workshop On Semantic Web and Web Semantics (SWWS)

SWWS 2008 PC Co-chairs' Message . . . . .	997
-------------------------------------------	-----

## SWWS I

A Deductive Approach for Resource Interoperability and Well-Defined Workflows .....	998
<i>Nadia Yacoubi Ayadi, Zoé Lacroix, and Maria-Esther Vidal</i>	
Ontology Robustness in Evolution.....	1010
<i>Paolo Ceravolo, Ernesto Damiani, and Marcello Leida</i>	
Learning to Get the Value of Quality from Web Data.....	1018
<i>Guzmán Llambías, Regina Motz, Federico Toledo, and Simon de Uvarow</i>	
Building the Semantic Utility with Standards and Semantic Web Services.....	1026
<i>Mathias Uslar, Sebastian Rohjans, Stefan Schulte, and Ralf Steinmetz</i>	

## SWWS II

TICSA Approach: Five Important Aspects of Multi-agent Systems .....	1036
<i>Maja Hadzic and Elizabeth Chang</i>	
Applications of the ACGT Master Ontology on Cancer .....	1046
<i>Mathias Brochhausen, Gabriele Weiler, Luis Martín, Cristian Cocos, Holger Stenzhorn, Norbert Graf, Martin Dörr, Manolis Tsiknakis, and Barry Smith</i>	

## SWWS III

An Ontology-Based Crawler for the Semantic Web .....	1056
<i>Felix Van de Maele, Peter Spyns, and Robert Meersman</i>	
Consensus Emergence from Naming Games in <i>Representative Agent</i> Semantic Overlay Networks .....	1066
<i>Gabriele Gianini, Ernesto Damiani, and Paolo Ceravolo</i>	
A Semantic Crawler Based on an Extended CBR Algorithm .....	1076
<i>Hai Dong, Farookh Khadeer Hussain, and Elizabeth Chang</i>	
<b>Author Index</b> .....	1087