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The Semantic Web: Research and Applications

Second European Semantic Web Conference, ESWC 2005
Heraklion, Crete, Greece, May 29 – June 1, 2005
Proceedings

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Preface

This volume contains the papers presented at the 2nd European Semantic Web Conference (ESWC 2005) held in Heraklion, Crete, Greece, from 29th May to 1st June, 2005.

The vision of the Semantic Web is to enhance today's Web via the exploitation of machine-processable metadata. The explicit representation of the semantics of data, accompanied with domain theories (ontologies), will enable a web that provides a qualitatively new level of service. It will weave together an incredibly large network of human knowledge and will complement it with machine processability. Various automated services will help the user to achieve goals by accessing and providing information in a machine-understandable form. This process may ultimately create extremely knowledgeable systems with various specialized reasoning services systems. Many technologies and methodologies are being developed within artificial intelligence, human language technology, machine learning, databases, software engineering and information systems that can contribute to the realization of this vision.

The 2nd Annual European Semantic Web Conference presented the latest results in research and applications of Semantic Web technologies. Following the success of the first edition, ESWC showed a significant increase in participation. With 148 submissions, the number of papers doubled that of the previous edition. Each submission was evaluated by at least three reviewers. The selection process resulted in the acceptance of 48 papers for publication and presentation at the conference (an acceptance rate of 32%). Papers did not come only from Europe but also from other continents.

The selected papers broadly cover the following main topics:

- Semantic Web services
- Semantic Web languages
- ontologies
- reasoning and querying
- search and information retrieval
- user involvement and communities
- natural language for the Semantic Web
- annotation tools
- Semantic Web applications

In addition, ESWC 2005 also featured a special industry forum providing European industry with an opportunity to become more familiar with these technologies. In addition to the main conference, ESWC 2005 included 6 workshops, 5 tutorials, demo and poster sessions. Several European projects had meetings collocated with the main conference.

ESWC 2005 was sponsored by SDK — a group of three European Commission 6th Framework Programme projects known as SEKT, DIP and Knowledge Web.

Together these projects aim to improve world-wide research and standardization in the area of the Semantic Web. The conference also received precious sponsorship from British Telecommunications, DERI Galway and Innsbruck, Ontoprise, AKT and Collexis. Their help was greatly appreciated. We are also grateful to Springer which accepted again this year to publish the proceedings in its Lecture Notes in Computer Science series.

We would like to thank the International Program Committee for its enormous effort in the reviewing process (many reviewers had to evaluate up to 10 papers). In all, 115 additional reviewers were called upon to complete the review process in time.

We owe inexpressible thanks to Miguel Esteban, the Web submission master. Our gratitude also goes to the entire Conference Organization Committee and especially to Christen Ensor for holding things together.

April 2005

Asunción Gómez-Pérez
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Table of Contents

Semantic Web Services

Automatic Location of Services <i>Uwe Keller, Rubén Lara, Holger Lausen, Axel Polleres, Dieter Fensel</i>	1
Feta: A Light-Weight Architecture for User Oriented Semantic Service Discovery <i>Phillip Lord, Pinar Alper, Chris Wroe, Carole Goble</i>	17
Optimally Distributing Interactions Between Composed Semantic Web Services <i>Ion Constantinescu, Walter Bindrer, Boi Faltings</i>	32
A POP-Based Replanning Agent for Automatic Web Service Composition <i>Joachim Peer</i>	47
Process-Level Composition of Executable Web Services: “On-the-fly” Versus “Once-for-all” Composition <i>Marco Pistore, Pierluigi Roberti, Paolo Traverso</i>	62
The OWL-S Editor - A Development Tool for Semantic Web Services <i>Daniel Elenius, Grit Denker, David Martin, Fred Gilham, John Khouri, Shahin Sadaati, Rukman Senanayake</i>	78

Languages

Temporal RDF <i>Claudio Gutierrez, Carlos Hurtado, Alejandro Vaisman</i>	93
Multilingual RDF and OWL <i>Jeremy J. Carroll, Addison Phillips</i>	108
RDFSculpt: Managing RDF Schemas Under Set-Like Semantics <i>Zoi Kaoudi, Theodore Dalamagas, Timos Sellis</i>	123

REDD: An Algorithm for Redundancy Detection in RDF Models <i>Floriana Esposito, Luigi Iannone, Ignazio Palmisano, Domenico Redavid, Giovanni Semeraro</i>	138
OWL-Eu: Adding Customised Datatypes into OWL <i>Jeff Z. Pan, Ian Horrocks</i>	153
Towards a Fuzzy Description Logic for the Semantic Web (Preliminary Report) <i>Umberto Straccia</i>	167
Consistent Evolution of OWL Ontologies <i>Peter Haase, Ljiljana Stojanovic</i>	182
 Ontologies	
Extending HCONE-Merge by Approximating the Intended Meaning of Ontology Concepts Iteratively <i>George A. Vouros, Konstantinos Kotis</i>	198
Soundness of Schema Matching Methods <i>M. Benerecetti, P. Bouquet, S. Zanobini</i>	211
Debugging and Semantic Clarification by Pinpointing <i>Stefan Schlobach</i>	226
An Argumentation Ontology for DIstributed, Loosely-controlled and evolvinG Engineering processes of oNTologies (DILIGENT) <i>Christoph Tempich, H. Sofia Pinto, York Sure, Steffen Staab</i>	241
Towards an Ontology-Based Distributed Architecture for Paid Content <i>Wernher Behrendt, Aldo Gangemi, Wolfgang Maass, Rupert Westenthaler</i>	257
Efficient Semantic Matching <i>Fausto Giunchiglia, Mikalai Yatskevich, Enrico Giunchiglia</i>	272
Ontology-Based Policy Specification and Management <i>Wolfgang Nejdl, Daniel Olmedilla, Marianne Winslett, Charles C. Zhang</i>	290
Web Explanations for Semantic Heterogeneity Discovery <i>Pavel Shvaiko, Fausto Giunchiglia, Paulo Pinheiro da Silva, Deborah L. McGuinness</i>	303

Reasoning and Querying

Approximating Description Logic Classification for Semantic Web Reasoning <i>Perry Groot, Heiner Stuckenschmidt, Holger Wache</i>	318
AIS and Semantic Query <i>Rana Kashif Ali, Steve Cayzer</i>	333
Querying RDF Data from a Graph Database Perspective <i>Renzo Angles, Claudio Gutierrez</i>	346
DRAGO: Distributed Reasoning Architecture for the Semantic Web <i>Luciano Serafini, Andrei Tamilin</i>	361
Dually Structured Concepts in the Semantic Web: Answer Set Programming Approach <i>Patryk Burek, Rafał Graboś</i>	377
Nonmonotonic Ontological and Rule-Based Reasoning with Extended Conceptual Logic Programs <i>Stijn Heymans, Davy Van Nieuwenborgh, Dirk Vermeir</i>	392

Search and Information Retrieval

Product Information Meta-search Framework for Electronic Commerce Through Ontology Mapping <i>Wooju Kim, Dae Woo Choi, Sangun Park</i>	408
Multiple Vehicles for a Semantic Navigation Across Hyper-environments <i>Irene Celino, Emanuele Della Valle</i>	423
Activity Based Metadata for Semantic Desktop Search <i>Paul Alexandru Chirita, Rita Gavriloaie, Stefania Ghita, Wolfgang Nejdl, Raluca Paiu</i>	439
An Ontology-Based Information Retrieval Model <i>David Vallet, Miriam Fernández, Pablo Castells</i>	455
Knowledge Sharing by Information Retrieval in the Semantic Web <i>Neyir Sevilmis, André Stork, Tim Smithers, Jorge Posada, Massimiliano Pianciamore, Rui Castro, Ivan Jimenez, Gorka Marcos, Marco Mauri, Paolo Selvini, Bruno Thelen, Vincenzo Zecchino</i>	471

Users and Communities

Collaborative and Usage-Driven Evolution of Personal Ontologies <i>Peter Haase, Andreas Hotho, Lars Schmidt-Thieme, York Sure</i>	486
Towards Semantically-Interlinked Online Communities <i>John G. Breslin, Andreas Harth, Uldis Bojars, Stefan Decker</i>	500
The Personal Publication Reader: Illustrating Web Data Extraction, Personalization and Reasoning for the Semantic Web <i>Robert Baumgartner, Nicola Henze, Marcus Herzog</i>	515

Natural Language for the Semantic Web

Generating Tailored Textual Summaries from Ontologies <i>Kalina Bontcheva</i>	531
AquaLog: An Ontology-Portable Question Answering System for the Semantic Web <i>Vanessa Lopez, Michele Pasin, Enrico Motta</i>	546
Lexically Evaluating Ontology Triples Generated Automatically from Texts <i>Peter Spyns, Marie-Laure Reinberger</i>	563

AnnotationTools

Pedro Ontology Services: A Framework for Rapid Ontology Markup <i>Kevin Garwood, Phillip Lord, Helen Parkinson, Norman W. Paton, Carole Goble</i>	578
Semantic Annotation of Images and Videos for Multimedia Analysis <i>Stephan Bloehdorn, Kosmas Petridis, Carsten Saathoff, Nikos Simou, Vassilis Tzouvaras, Yannis Avrithis, Siegfried Handschuh, Yiannis Kompatsiaris, Steffen Staab, Michael G. Strintzis</i>	592
RELFIN - Topic Discovery for Ontology Enhancement and Annotation <i>Markus Schaal, Roland M. Müller, Marko Brunzel, Myra Spiliopoulou</i>	608
Semantic Web-Based Document: Editing and Browsing in AktiveDoc <i>Vitaveska Lanfranchi, Fabio Ciravegna, Daniela Petrelli</i>	623

Semantic Web Applications

Semantic-Based Automated Composition of Distributed Learning Objects for Personalized E-Learning <i>Simona Colucci, Tommaso Di Noia, Eugenio Di Sciascio, Francesco M. Donini, Azzurra Ragone</i>	633
Orchestration of Semantic Web Services for Large-Scale Document Annotation <i>Barry Norton, Sam Chapman, Fabio Ciravegna</i>	649
Monitoring Research Collaborations Using Semantic Web Technologies <i>Harith Alani, Nicholas Gibbins, Hugh Glaser, Stephen Harris, Nigel Shadbolt</i>	664
Enabling Real World Semantic Web Applications Through a Coordination Middleware <i>Robert Tolksdorf, Lyndon J.B. Nixon, Elena Paslaru Bontas, Duc Minh Nguyen, Franziska Liebsch</i>	679
A Semantic Service Environment: A Case Study in Bioinformatics <i>Stephen Potter, Stuart Aitken</i>	694
Towards B2B Integration in Telecommunications with Semantic Web Services <i>Alistair Duke, Marc Richardson, Sam Watkins, Martin Roberts</i>	710
Invited Papers	
SWebB: Semantic Web Browsing <i>Fausto Giunchiglia</i>	725
The Semantic Grid: Past, Present and Future <i>David De Roure</i>	726
Author Index	727