

Commenced Publication in 1973

Founding and Former Series Editors:

Gerhard Goos, Juris Hartmanis, and Jan van Leeuwen

Editorial Board

David Hutchison

Lancaster University, UK

Takeo Kanade

Carnegie Mellon University, Pittsburgh, PA, USA

Josef Kittler

University of Surrey, Guildford, UK

Jon M. Kleinberg

Cornell University, Ithaca, NY, USA

Alfred Kobsa

University of California, Irvine, CA, USA

Friedemann Mattern

ETH Zurich, Switzerland

John C. Mitchell

Stanford University, CA, USA

Moni Naor

Weizmann Institute of Science, Rehovot, Israel

Oscar Nierstrasz

University of Bern, Switzerland

C. Pandu Rangan

Indian Institute of Technology, Madras, India

Bernhard Steffen

TU Dortmund University, Germany

Madhu Sudan

Microsoft Research, Cambridge, MA, USA

Demetri Terzopoulos

University of California, Los Angeles, CA, USA

Doug Tygar

University of California, Berkeley, CA, USA

Gerhard Weikum

Max Planck Institute for Informatics, Saarbruecken, Germany

Peter F. Patel-Schneider Yue Pan
Pascal Hitzler Peter Mika
Lei Zhang Jeff Z. Pan
Ian Horrocks Birte Glimm (Eds.)

The Semantic Web – ISWC 2010

9th International Semantic Web Conference, ISWC 2010
Shanghai, China, November 7-11, 2010
Revised Selected Papers, Part I

Volume Editors

Peter F. Patel-Schneider
Bell Labs Research, Murray Hill, NJ 07974, USA
E-mail: pfps@research.bell-labs.com

Yue Pan
IBM Research Labs, Beijing 100193, China
E-mail: panyue@cn.ibm.com

Pascal Hitzler
Wright State University, Dayton, OH 45435, USA
E-mail: pascal.hitzler@wright.edu

Peter Mika
Yahoo! Research, 08018 Barcelona, Spain
E-mail: pmika@yahoo-inc.com

Lei Zhang
IBM Research Labs, Shanghai 201203, China
E-mail: lzhangl@cn.ibm.com

Jeff Z. Pan
The University of Aberdeen, Aberdeen, AB24 3UE, UK
E-mail: jeff.z.pan@abdn.ac.uk

Ian Horrocks
University of Oxford, Oxford, OX1 3QD, UK
E-mail: ian.horrocks@comlab.ox.ac.uk

Birte Glimm
University of Oxford, Oxford, OX1 3QD, UK
E-mail: birte.glimm@comlab.ox.ac.uk

The cover photo was taken by Nicolas Rollier (flickr user nrollier).

Library of Congress Control Number: 2010940710

CR Subject Classification (1998): C.2, H.4, H.3, H.5, J.1, K.4

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

ISSN 0302-9743
ISBN-10 3-642-17745-X Springer Berlin Heidelberg New York
ISBN-13 978-3-642-17745-3 Springer Berlin Heidelberg New York

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, re-use of illustrations, recitation, broadcasting, reproduction on microfilms or in any other way, and storage in data banks. Duplication of this publication or parts thereof is permitted only under the provisions of the German Copyright Law of September 9, 1965, in its current version, and permission for use must always be obtained from Springer. Violations are liable to prosecution under the German Copyright Law.

springer.com

© Springer-Verlag Berlin Heidelberg 2010
Printed in Germany

Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India
Printed on acid-free paper 06/3180

Preface

The International Semantic Web Conferences (ISWC) constitute the major international venue where the latest research results and technical innovations on all aspects of the Semantic Web are presented. ISWC brings together researchers, practitioners, and users from the areas of artificial intelligence, databases, social networks, distributed computing, Web engineering, information systems, natural language processing, soft computing, and human-computer interaction to discuss the major challenges and proposed solutions, the success stories and failures, as well the visions that can advance research and drive innovation in the Semantic Web.

This volume contains the main proceedings of ISWC 2010, including papers accepted in the Research and Semantic-Web-in-Use Tracks of the conference, as well as long papers accepted in the Doctoral Consortium, and information on the invited talks.

This year the Research Track received 350 abstracts and 228 full papers from around the world. The Program Committee for the track was recruited from researchers in the field, and had world-wide membership. Each submitted paper received at least three reviews as well as a meta-review. The reviewers participated in many spirited discussions concerning their reviews. Authors had the opportunity to submit a rebuttal, leading to further discussions among the reviewers and sometimes to additional reviews. Final decisions were made during a meeting between the Track Chairs and senior Program Committee members. There were 51 papers accepted in the track, a 22% acceptance rate.

The Semantic-Web-in-Use Track, targeted at deployed applications with significant research content, received 66 submissions, and had the same reviewing process as the Research Track, except without the rebuttal phase. There were 18 papers accepted in this track, a 27% acceptance rate.

For the sixth consecutive year, ISWC also had a Doctoral Consortium Track for PhD students within the Semantic Web community, giving them the opportunity not only to present their work but also to discuss in detail their research topics and plans, and to receive extensive feedback from leading scientists in the field, from both academia and industry. Out of 24 submissions, 6 were accepted as long papers, and a further 7 were accepted for short presentations. Each student was assigned a mentor who led the discussions following the presentation of the work, and provided detailed feedback and comments, focusing on the PhD proposal itself and presentation style, as well as on the actual work presented.

The ISWC program also included four invited talks given by leading figures from both the academic and business world. This year talks were given by Li Xiaoming of Peking University, China; mc schraefel of the University of Southampton, UK; Austin Haugen of Facebook; and Evan Sandhaus of the New York Times.

The ISWC conference included the Semantic Web Challenge, as in the past. In the challenge, organized this year by Christian Bizer and Diana Maynard, practitioners and scientists are encouraged to showcase useful and leading-edge applications of Semantic Web technology, either on Semantic Web data in general or on a particular data set containing 3.2 billion triples. ISWC also included a large tutorial and workshop program, organized by Philippe Cudré-Mauroux and Bijan Parsia, with 13 workshops and 8 tutorials spread over two days. ISWC again included a Poster and Demo session, organized by Axel Polleres and Hua-jun Chen, for presentation of late-breaking work and work in progress, and a series of industry talks.

A conference as complex as ISWC requires the services of a multitude of people. First and foremost, we thank all the members of the Program Committees for the Research Track, the Semantic-Web-In-Use Track, and the Doctorial Consortium. They took considerable time, during summer vacation season for most of them, to read, review, respond to rebuttals, discuss, and re-discuss the submissions. We also thank the people involved in the other portions of the conference, particularly Birte Glimm, the Proceedings Chair; Lin Clark and Yuan Tian, the webmasters; Axel Polleres and Hua-jun Chen, the Posters and Demos Chairs, and their Program Committee; Yong Yu, the Local Arrangements Chair, Haofen Wang, who managed most aspects of the local arrangements, and Dingyi Han, Gui-Rong Xue and Lei Zhang, the Local Arrangements Committee; Sebastian Rudolph, the Publicity Chair; Jie Bao, the Metadata Chair; Anand Ranganathan and Kendall Clark, the Sponsor Chairs; and Jeff Hefflin, the Fellowship Chair.

September 2010

Yue Pan and Peter F. Patel-Schneider
Program Chairs, Research Track Chairs

Pascal Hitzler, Peter Mika, and Lei Zhang
Semantic-Web-In-Use and Industry Track Chairs

Jeff Z. Pan
Doctoral Consortium Chair

Ian Horrocks
Conference Chair

Conference Organization

Organizing Committee

Conference Chair

Ian Horrocks University of Oxford, UK

Program Chairs, Research Track Chairs

Yue Pan IBM Research Labs, China

Peter F. Patel-Schneider Bell Labs, USA

Semantic-Web-In-Use and Industry Chairs

Pascal Hitzler Wright State University, USA

Peter Mika Yahoo! Research, Spain

Lei Zhang IBM Research Labs, China

Posters and Demos Chairs

Axel Polleres National University of Ireland, Ireland

Huajun Chen Shanghai Jiao Tong University, China

Doctoral Consortium Chair

Jeff Z. Pan The University of Aberdeen, UK

Workshops and Tutorials Chairs

Philippe Cudré-Mauroux Massachusetts Institute of Technology, USA

Bijan Parsia University of Manchester, UK

Semantic Web Challenge Chairs

Chris Bizer Freie Universität Berlin, Germany

Diana Maynard University of Sheffield, UK

Metadata Chair

Jie Bao Rensselaer Polytechnic Institute, USA

Local Organization Chair

Yong Yu Shanghai Jiao Tong University, China

Local Organization Committee

Dingyi Han Shanghai Jiao Tong University, China

Gui-Rong Xue Shanghai Jiao Tong University, China

Haofen Wang Shanghai Jiao Tong University, China

Lei Zhang IBM Research Labs, China

Publicity Chair

Sebastian Rudolph Karlsruher Institut für Technologie, Germany

Webmasters

Lin Clark National University of Ireland, Ireland
Yuan Tian Shanghai Jiao Tong University, China

Proceedings Chair

Birte Glimm University of Oxford, UK

Sponsor Chairs

Anand Ranganathan IBM T.J. Watson Research Center, USA
Kendall Clark Clark & Parsia, LLC, USA

Fellowship Chair

Jeff Hefflin Lehigh University, USA

Senior Program Committee — Research

Hassan Ait-Kaci	Jeff Hefflin
Abraham Bernstein	Aditya Kalyanpur
Paul Buitelaar	David Karger
Ciro Cattuto	Juanzi Li
Vinay Chaudhri	Li Ma
Bob DuCharme	Natasha Noy
Michel Dumontier	Jacco van Ossenbruggen
Tim Finin	Yuzhong Qu
Asunción Gómez-Pérez	Evren Sirin
Claudio Gutierrez	

Program Committee — Research

Sudhir Agarwal	Mark Burstein
Harith Alani	Diego Calvanese
Paul André	Enhong Chen
Melliyal Annamalai	Key-Sun Choi
Kemafor Anyanwu	Philipp Cimiano
Knarig Arabshian	Lin Clark
Marcelo Arenas	Oscar Corcho
Jie Bao	Melanie Courtot
Michael Benedikt	Isabel Cruz
Chris Bizer	Claudia d'Amato
Eva Blomqvist	Mathieu d'Aquin
Kalina Bontcheva	David De Roure

Mike Dean
Stefan Decker
Ian Dickinson
Xiaoyong Du
Thomas Eiter
Robert H.P. Engels
Achille Fokoue
Enrico Franconi
Zhiqiang Gao
Nikesh Garera
Yolanda Gil
Stefan Gradmann
Michael Gruninger
Volker Haarslev
Harry Halpin
Siegfried Handschuh
Tom Heath
Nicola Henze
Martin Hepp
Nathalie Hernandez
Stijn Heymans
Kaoru Hiramatsu
Rinke Hoekstra
Andreas Hotho
Wei Hu
Zhisheng Huang
Jane Hunter
David Huynh
Eero Hyvönen
Zhi Jin
Lalana Kagal
Anastasios Kementsietsidis
Vladimir Kolovski
Markus Krötzsch
Ora Lassila
Georg Lausen
Faith Lawrence
Shengping Liu
Pankaj Mehra
Jing Mei
Riichiro Mizoguchi
Knud Moeller
Paola Monachesi
William Murray

Wolfgang Nejdl
Yuan Ni
Alexandre Passant
Chintan Patel
Alun Preece
Guilin Qi
Anand Ranganathan
Riccardo Rosati
Sebastian Rudolph
Uli Sattler
Ansgar Scherp
Daniel Schwabe
Yi-Dong Shen
Michael Sintek
Sergej Sizov
Kavitha Srinivas
Steffen Staab
Giorgos Stamou
Robert Stevens
Umberto Straccia
Heiner Stuckenschmidt
Mari Carmen Suárez-Figueroa
V.S. Subrahmanian
Xingzhi Sun
York Sure
Jie Tang
Christopher Thomas
Lieven Trappeniers
Tania Tudorache
Anni-Yasmin Turhan
Octavian Udrea
Michael Uschold
Haixun Wang
Haofen Wang
Fang Wei
Max Wilson
Katy Wolstencroft
Zhe Wu
Bin Xu
Peter Yeh
Yong Yu
Lei Zhang
Ming Zhang
Hai Zhuge

Program Committee — Semantic-Web-In-Use and Industry

Harith Alani	Renato Iannella
Sören Auer	Krzysztof Janowicz
Mathieu d'Aquin	Atanas Kiryakov
Dave Beckett	Markus Krötzsch
Chris Bizer	Mark Musen
Boyan Brodaric	Knud Möller
Vinay Chaudri	Chimezie Ogbuji
Huajun Chen	Daniel Olmedilla
Gong Cheng	Eric Prud'hommeaux
Kendall Clark	Yuzhong Qu
John Davies	Yves Raimond
Leigh Dodds	Marta Sabou
Michel Dumontier	Satya S. Sahoo
Aldo Gangemi	Andy Seaborne
Paul Gearon	Susie Stephens
Mark Greaves	Hideaki Takeda
Stephan Grimm	Jie Tang
Peter Haase	Jamie Taylor
Michael Hausenblas	Andraz Tori
Manfred Hauswirth	Holger Wache
Ivan Herman	Haofen Wang
Rinke Hoekstra	Jan Wielemaker
David Huynh	David Wood
Eero Hyvönen	Guo-Qiang Zhang

Program Committee — Doctoral Consortium

Abraham Bernstein	Diana Maynard
Meghyn Bienvenu	Enrico Motta
Huajun Chen	Lyndon Nixon
Ying Ding	Guilin Qi
Jianfeng Du	Manuel Salvadorés
Jérôme Euzenat	Guus Schreiber
Giorgos Flouris	Pavel Shvaiko
Zhiqiang Gao	Yi-Dong Shen
Marko Grobelnik	Amit Sheth
Siegfried Handschuh	Elena Simperl
Andreas Harth	Giorgos Stamou
Stijn Heymans	Giorgos Stoilos
Wei Hu	Heiner Stuckenschmidt
Zhisheng Huang	Vojtech Svatek
Roman Kontchakov	Anni-Yasmin Turhan

Denny Vrandečić
Holger Wache
Haofen Wang

Shenghui Wang
Ming Zhang
Yuting Zhao

External Reviewers

Nor Azlinayati Abdul Manaf
Alessandro Adamou
Mark van Assem
Cosmin Basca
Sujoy Basu
Elena Botoeva
Jos de Bruijn
Carlos Buil-Aranda
Catherina Burghart
Jean Paul Calbimonte
Xiong Chenyan
DongHyun Choi
Alexandros Chortaras
Maria Copeland
Enrico Daga
Brian Davis
Renaud Delbru
Alexander DeLeon
Zhongli Ding
Laura Dragan
Fang Du
Liang Du
Alistair Duke
George Eadon
Jinan El-Hachem
Sean Falconer
Jun Fang
Nicola Fanizzi
Sébastien Ferré
Björn Forcher
Andrés García-Silva
Birte Glimm
Gunnar Aastrand Grimnes
Tudor Groza
Christian Hachenberg
Olaf Hartig
Norman Heino
Daniel Hienert
Aidan Hogan

Thomas Hornung
Matthew Horridge
Julia Hoxha
Gearoid Hynes
Robert Isele
Max Jakob
Martin Junghans
Aditya Kalyanpur
Kamal Kc
Malte Kiesel
Jörg-Uwe Kietz
Eun-Kyung Kim
Yoshinobu Kitamura
Pavel Klinov
Kouji Kozaki
Beate Krause
Thomas Krennwallner
Markus Kröttsch
Maurizio Lenzerini
Paea LePendu
Xuan Li
Yuan-Fang Li
Feiyu Lin
Maxim Lukichev
Sen Luo
Yue Ma
Frederick Maier
Theofilos Mailis
Michael Martin
Philipp Mayr
Anees ul Mehdi
Michael Meier
Pablo Mendes
Eleni Mikroyannidi
Fleur Mougín
Zhi Nie
Mathias Niepert
Nadejda Nikitina
Andriy Nikolov

Vit Novacek
Andrea Nuzzolese
Jasmin Opitz
Magdalena Ortiz
Raul Palma
Rafael Peñaloza
Jorge Pérez
Danh Le Phuoc
Axel Polleres
Freddy Priyatna
Jörg Pührer
Guilin Qi
Timothy Redmond
Yuan Ren
Achim Rettinger
Vinny Reynolds
Ismael Rivera
Mariano Rodriguez-Muro
Dmitry Ryashchentsev
Anne Schlicht
Florian Schmedding
Michael Schmidt
Thomas Schneider
mc schraefel
Floarea Serban
Wei Shen
Rob Shearer
Fuming Shih
Andrey Simanovsky
Mantas Simkus
Evren Sirin
Sebastian Speiser
Giorgos Stoilos
Cosmin Stroe
Mari Carmen Suárez-Figueroa

Kewu Sun
Xiaoping Sun
Martin Szomszor
Christer Thörn
VinhTuan Thai
Christopher Thomas
Despoina Trivela
Eleni Tsalapati
Dmitry Tsarkov
Alexander Ulanov
Natalia Vassilieva
Tasos Venetis
Kunal Verma
Boris Villazón-Terrazas
Denny Vrandecic
Bo Wang
Xiaoyuan Wang
Zhe Wang
Zhichun Wang
Jens Wissmann
Gang Wu
Kejia Wu
Linhao Xu
Yixin Yan
Fangkai Yang
Amapali Zaveri
Benjamin Zapolko
Maciej Zaremba
Lei Zhang
Xiao Zhang
Dmitriy Zheleznyakov
Hai-Tao Zheng
Qian Zhong
Ming Zuo

Sponsors

Platinum Sponsors

AI Journal
Elsevier
OntoText

Gold Sponsors

fluid Operations AG
LarKC
SaltLux
Yahoo!

Silver Sponsors

IBM
EMC²
W3C
Amiando



IBM Research



Table of Contents – Part I

Research Track

Fusion – Visually Exploring and Eliciting Relationships in Linked Data	1
<i>Samur Araujo, Geert-Jan Houben, Daniel Schwabe, and Jan Hidders</i>	
Converting and Annotating Quantitative Data Tables	16
<i>Mark van Assem, Hajo Rijgersberg, Mari Wigham, and Jan Top</i>	
JustBench: A Framework for OWL Benchmarking	32
<i>Samantha Bail, Bijan Parsia, and Ulrike Sattler</i>	
Talking about Data: Sharing Richly Structured Information through Blogs and Wikis	48
<i>Edward Benson, Adam Marcus, Fabian Howahl, and David Karger</i>	
$\mathcal{EL}$ with Default Attributes and Overriding	64
<i>Piero A. Bonatti, Marco Faella, and Luigi Sauro</i>	
Supporting Natural Language Processing with Background Knowledge: Coreference Resolution Case	80
<i>Volha Bryl, Claudio Giuliano, Luciano Serafini, and Kateryna Tymoshenko</i>	
Enabling Ontology-Based Access to Streaming Data Sources	96
<i>Jean-Paul Calbimonte, Oscar Corcho, and Alasdair J.G. Gray</i>	
Evolution of <i>DL-Lite</i> Knowledge Bases	112
<i>Diego Calvanese, Evgeny Kharlamov, Werner Nutt, and Dmitriy Zheleznyakov</i>	
Ontology Similarity in the Alignment Space	129
<i>J������ David, J������ Euzenat, and Ond������ ��v����-Zamazal</i>	
SameAs Networks and Beyond: Analyzing Deployment Status and Implications of owl:sameAs in Linked Data	145
<i>Li Ding, Joshua Shinavier, Zhenning Shangguan, and Deborah L. McGuinness</i>	
Deciding Agent Orientation on Ontology Mappings	161
<i>Paul Doran, Terry R. Payne, Valentina Tamma, and Ignazio Palmisano</i>	

One Size Does Not Fit All: Customizing Ontology Alignment Using User Feedback	177
<i>Songyun Duan, Achille Fokoue, and Kavitha Srinivas</i>	
Compact Representation of Large RDF Data Sets for Publishing and Exchange	193
<i>Javier D. Fernández, Miguel A. Martínez-Prieto, and Claudio Gutierrez</i>	
Assessing Trust in Uncertain Information	209
<i>Achille Fokoue, Mudhakar Srivatsa, and Rob Young</i>	
Optimising Ontology Classification	225
<i>Birte Glimm, Ian Horrocks, Boris Motik, and Giorgos Stoilos</i>	
SPARQL beyond Subgraph Matching	241
<i>Birte Glimm and Markus Krötzsch</i>	
Integrated Metamodeling and Diagnosis in OWL 2	257
<i>Birte Glimm, Sebastian Rudolph, and Johanna Völker</i>	
Semantic Recognition of Ontology Refactoring	273
<i>Gerd Gröner, Fernando Silva Parreiras, and Steffen Staab</i>	
Finding the Achilles Heel of the Web of Data: Using Network Analysis for Link-Recommendation	289
<i>Christophe Guéret, Paul Groth, Frank van Harmelen, and Stefan Schlobach</i>	
When owl:sameAs Isn't the Same: An Analysis of Identity in Linked Data	305
<i>Harry Halpin, Patrick J. Hayes, Jamie P. McCusker, Deborah L. McGuinness, and Henry S. Thompson</i>	
Semantic Need: Guiding Metadata Annotations by Questions People #ask	321
<i>Hans-Jörg Happel</i>	
SAOR: Template Rule Optimisations for Distributed Reasoning over 1 Billion Linked Data Triples	337
<i>Aidan Hogan, Jeff Z. Pan, Axel Polleres, and Stefan Decker</i>	
Justification Oriented Proofs in OWL	354
<i>Matthew Horridge, Bijan Parsia, and Ulrike Sattler</i>	
Toponym Resolution in Social Media	370
<i>Neil Ireson and Fabio Ciravegna</i>	
An Expressive and Efficient Solution to the Service Selection Problem	386
<i>Daniel Izquierdo, María-Esther Vidal, and Blai Bonet</i>	

Ontology Alignment for Linked Open Data	402
<i>Prateek Jain, Pascal Hitzler, Amit P. Sheth, Kunal Verma, and Peter Z. Yeh</i>	
SPARQL Query Optimization on Top of DHTs	418
<i>Zoi Kaoudi, Kostas Kyzirakos, and Manolis Koubarakis</i>	
Optimizing Enterprise-Scale OWL 2 RL Reasoning in a Relational Database System	436
<i>Vladimir Kolovski, Zhe Wu, and George Eadon</i>	
Linked Data Query Processing Strategies	453
<i>Günter Ladwig and Thanh Tran</i>	
Making Sense of Twitter	470
<i>David Laniado and Peter Mika</i>	
Optimize First, Buy Later: Analyzing Metrics to Ramp-Up Very Large Knowledge Bases	486
<i>Paea LePendou, Natalya F. Noy, Clement Jonquet, Paul R. Alexander, Nigam H. Shah, and Mark A. Musen</i>	
Using Reformulation Trees to Optimize Queries over Distributed Heterogeneous Sources	502
<i>Yingjie Li and Jeff Hefflin</i>	
AnQL: SPARQLing Up Annotated RDFS	518
<i>Nuno Lopes, Axel Polleres, Umberto Straccia, and Antoine Zimmermann</i>	
Using Semantics for Automating the Authentication of Web APIs	534
<i>Maria Maleshkova, Carlos Pedrinaci, John Domingue, Guillermo Alvaro, and Ivan Martinez</i>	
Representing and Querying Validity Time in RDF and OWL: A Logic-Based Approach	550
<i>Boris Motik</i>	
Enhancing the Open-Domain Classification of Named Entity Using Linked Open Data	566
<i>Yuan Ni, Lei Zhang, Zhaoming Qiu, and Chen Wang</i>	
Forgetting Fragments from Evolving Ontologies	582
<i>Heather S. Packer, Nicholas Gibbins, and Nicholas R. Jennings</i>	
Linking and Building Ontologies of Linked Data	598
<i>Rahul Parundekar, Craig A. Knoblock, and José Luis Ambite</i>	
A Feature and Information Theoretic Framework for Semantic Similarity and Relatedness	615
<i>Giuseppe Pirró and Jérôme Euzenat</i>	

Combining Approximation and Relaxation in Semantic Web Path Queries	631
<i>Alexandra Poulovassilis and Peter T. Wood</i>	
EvoPat – Pattern-Based Evolution and Refactoring of RDF Knowledge Bases	647
<i>Christoph Rieß, Norman Heino, Sebastian Tramp, and Sören Auer</i>	
How to <i>Reuse</i> a Faceted Classification and Put It on the <i>Semantic Web</i>	663
<i>Bene Rodriguez-Castro, Hugh Glaser, and Leslie Carr</i>	
OWL-POLAR: Semantic Policies for Agent Reasoning	679
<i>Murat Şensoy, Timothy J. Norman, Wamberto W. Vasconcelos, and Katia Sycara</i>	
Query Strategy for Sequential Ontology Debugging	696
<i>Kostyantyn Shchekotykhin and Gerhard Friedrich</i>	
Preference-Based Web Service Composition: A Middle Ground between Execution and Search	713
<i>Shirin Sohrabi and Sheila A. McIlraith</i>	
A Self-Policing Policy Language	730
<i>Sebastian Speiser and Rudi Studer</i>	
Completeness Guarantees for Incomplete Reasoners	747
<i>Giorgos Stoilos, Bernardo Cuenca Grau, and Ian Horrocks</i>	
Signal/Collect: Graph Algorithms for the (Semantic) Web	764
<i>Philip Stutz, Abraham Bernstein, and William Cohen</i>	
Summary Models for Routing Keywords to Linked Data Sources	781
<i>Thanh Tran, Lei Zhang, and Rudi Studer</i>	
Declarative Semantics for the Rule Interchange Format Production Rule Dialect	798
<i>Carlos Viegas Damásio, José Júlio Alferes, and João Leite</i>	
Measuring the Dynamic Bi-directional Influence between Content and Social Networks	814
<i>Shenghui Wang and Paul Groth</i>	
Author Index	831

Table of Contents – Part II

Semantic-Web-In-Use Track

I18n of Semantic Web Applications	1
<i>Sören Auer, Matthias Weidl, Jens Lehmann, Amrapali J. Zaveri, and Key-Sun Choi</i>	
Social Dynamics in Conferences: Analyses of Data from the Live Social Semantics Application	17
<i>Alain Barrat, Ciro Cattuto, Martin Szomszor, Wouter Van den Broeck, and Harith Alani</i>	
Using Semantic Web Technologies for Clinical Trial Recruitment	34
<i>Paolo Besana, Marc Cuggia, Oussama Zekri, Annabel Bourde, and Anita Burgun</i>	
Experience of Using OWL Ontologies for Automated Inference of Routine Pre-operative Screening Tests	50
<i>Matt-Mouley Bouamrane, Alan Rector, and Martin Hurrell</i>	
Enterprise Data Classification Using Semantic Web Technologies	66
<i>David Ben-David, Tamar Domany, and Abigail Tarem</i>	
Semantic Techniques for Enabling Knowledge Reuse in Conceptual Modelling	82
<i>Jorge Gracia, Jochem Liem, Esther Lozano, Oscar Corcho, Michal Trna, Asunción Gómez-Pérez, and Bert Bredeweg</i>	
Semantic Technologies for Enterprise Cloud Management	98
<i>Peter Haase, Tobias Mathäß, Michael Schmidt, Andreas Eberhart, and Ulrich Walther</i>	
Semantic MediaWiki in Operation: Experiences with Building a Semantic Portal	114
<i>Daniel M. Herzig and Basil Ell</i>	
A Case Study of Linked Enterprise Data	129
<i>Bo Hu and Glenn Svensson</i>	
Linkage of Heterogeneous Knowledge Resources within In-Store Dialogue Interaction	145
<i>Sabine Janzen, Tobias Kowatsch, Wolfgang Maass, and Andreas Filler</i>	

ISReal: An Open Platform for Semantic-Based 3D Simulations in the 3D Internet	161
<i>Patrick Kapahnke, Pascal Liedtke, Stefan Nesbigall, Stefan Warwas, and Matthias Klusch</i>	
ORE – A Tool for Repairing and Enriching Knowledge Bases	177
<i>Jens Lehmann and Lorenz Bühmann</i>	
Mapping Master: A Flexible Approach for Mapping Spreadsheets to OWL	194
<i>Martin J. O'Connor, Christian Halaschek-Wiener, and Mark A. Musen</i>	
dbrec — Music Recommendations Using DBpedia	209
<i>Alexandre Passant</i>	
Knowledge Engineering for Historians on the Example of the <i>Catalogus Professorum Lipsiensis</i>	225
<i>Thomas Riechert, Ulf Morgenstern, Sören Auer, Sebastian Tramp, and Michael Martin</i>	
Time-Oriented Question Answering from Clinical Narratives Using Semantic-Web Techniques	241
<i>Cui Tao, Harold R. Solbrig, Deepak K. Sharma, Wei-Qi Wei, Guergana K. Savova, and Christopher G. Chute</i>	
Will Semantic Web Technologies Work for the Development of ICD-11?	257
<i>Tania Tudorache, Sean Falconer, Csongor Nyulas, Natalya F. Noy, and Mark A. Musen</i>	
Using SPARQL to Test for Lattices: Application to Quality Assurance in Biomedical Ontologies	273
<i>Guo-Qiang Zhang and Olivier Bodenreider</i>	

Doctoral Consortium

Exploiting Relation Extraction for Ontology Alignment	289
<i>Elena Beisswanger</i>	
Towards Semantic Annotation Supported by Dependency Linguistics and ILP	297
<i>Jan Dědek</i>	
Towards Technology Structure Mining from Scientific Literature	305
<i>Behrang QasemiZadeh</i>	

Auto-experimentation of KDD Workflows Based on Ontological Planning	313
<i>Floarea Serban</i>	
Customizing the Composition of Actions, Programs, and Web Services with User Preferences	321
<i>Shirin Sohrabi</i>	
Adding Integrity Constraints to the Semantic Web for Instance Data Evaluation	330
<i>Jiao Tao</i>	
Invited Talks	
Abstract: The Open Graph Protocol Design Decisions	338
<i>Austin Haugen</i>	
Evaluating Search Engines by Clickthrough Data	339
<i>Jing He and Xiaoming Li</i>	
Abstract: Semantic Technology at The New York Times: Lessons Learned and Future Directions	355
<i>Evan Sandhaus</i>	
What Does It Look Like, Really? Imagining How Citizens Might Effectively, Usefully and Easily Find, Explore, Query and Re-present Open/Linked Data	356
<i>mc schraefel</i>	
Author Index	371