

Table of Contents

Invited Talks

Emerging Sciences of the Internet: Some New Opportunities (Extended Abstract)	1
<i>Ron Brachman</i>	
Design Abstractions for Innovative Web Applications: The Case of the SOA Augmented with Semantics	4
<i>Stefano Ceri, Marco Brambilla, and Emanuele Della Valle</i>	
The Lixto Systems Applications in Business Intelligence and Semantic Web	16
<i>Robert Baumgartner, Oliver Frölich, and Georg Gottlob</i>	
Ways to Develop Human-Level Web Intelligence: A Brain Informatics Perspective	27
<i>Ning Zhong</i>	

Best Papers

Empowering Software Maintainers with Semantic Web Technologies	37
<i>René Witte, Yonggang Zhang, and Jürgen Rilling</i>	
Minimal Deductive Systems for RDF	53
<i>Sergio Muñoz, Jorge Pérez, and Claudio Gutierrez</i>	

Semantic Web Services

Web Service Contracting: Specification and Reasoning with SCIFF	68
<i>Marco Alberti, Federico Chesani, Marco Gavanelli, Evelina Lamma, Paola Mello, Marco Montali, and Paolo Torroni</i>	
Dynamic Service Discovery Through Meta-interactions with Service Providers	84
<i>Tomas Vitvar, Maciej Zaremba, and Matthew Moran</i>	
Two-Phase Web Service Discovery Based on Rich Functional Descriptions	99
<i>Michael Stollberg, Uwe Keller, Holger Lausen, and Stijn Heymans</i>	
A Reasoning Framework for Rule-Based WSML	114
<i>Stephan Grimm, Uwe Keller, Holger Lausen, and Gábor Nagypál</i>	

Ontology Learning, Inference and Mapping I

- GenTax: A Generic Methodology for Deriving OWL and RDF-S
Ontologies from Hierarchical Classifications, Thesauri, and Inconsistent
Taxonomies 129
Martin Hepp and Jos de Bruijn
- SPARQLeR: Extended Sparql for Semantic Association Discovery 145
Krys J. Kochut and Maciej Janik
- Simple Algorithms for Predicate Suggestions Using Similarity and
Co-occurrence 160
Eyal Oren, Sebastian Gerke, and Stefan Decker
- Learning Disjointness 175
Johanna Völker, Denny Vrandečić, York Sure, and Andreas Hotho

Case Studies

- Developing Ontologies for Collaborative Engineering in Mechatronics ... 190
*Violeta Damjanović, Wernher Behrendt, Manuela Plößnig, and
Merlin Holzapfel*
- Media, Politics and the Semantic Web 205
Wouter van Atteveldt, Stefan Schlobach, and Frank van Harmelen
- SEEMP: An Semantic Interoperability Infrastructure for e-Government
Services in the Employment Sector 220
*E. Della Valle, D. Cerizza, I. Celino, J. Estublier, G. Vega,
M. Kerrigan, J. Ramírez, B. Villazon, P. Guarrera, G. Zhao, and
G. Monteleone*
- Combining RDF Vocabularies for Expert Finding 235
*Boanerges Aleman-Meza, Uldis Bojārs, Harold Boley,
John G. Breslin, Malgorzata Mochol, Lyndon JB Nixon,
Axel Polleres, and Anna V. Zhdanova*

Social Semantic Web

- Extracting Social Networks Among Various Entities on the Web 251
YingZi Jin, Yutaka Matsuo, and Mitsuru Ishizuka
- Towards Semantic Social Networks 267
Jason J. Jung and Jérôme Euzenat
- Knowledge Sharing on the Semantic Web 281
Nicholas J. Kings, Caroline Gale, and John Davies

Ontologies: Requirements and Analysis

- Real-World Reasoning with OWL 296
*Timo Weithöner, Thorsten Liebig, Marko Luther, Sebastian Böhm,
 Friedrich von Henke, and Olaf Noppens*
- How to Design Better Ontology Metrics 311
Denny Vrandečić and York Sure
- Measuring Inconsistencies in Ontologies 326
Xi Deng, Volker Haarslev, and Nematollaah Shiri

Personalization I

- Squirrel: An Advanced Semantic Search and Browse Facility 341
Alistair Duke, Tim Glover, and John Davies
- User-Centric Faceted Search for Semantic Portals 356
Osmo Suominen, Kim Viljanen, and Eero Hyvönen
- An Approach for Identification of User's Intentions During the
 Navigation in Semantic Websites 371
Rafael Liberato Roberto and Sérgio Roberto P. da Silva

Foundations of the Semantic Web

- A Novel Combination of Answer Set Programming with Description
 Logics for the Semantic Web 384
Thomas Lukasiewicz
- Algorithms for Paraconsistent Reasoning with OWL 399
Yue Ma, Pascal Hitzler, and Zuoquan Lin
- Vague Knowledge Bases for Matchmaking in P2P E-Marketplaces 414
*Azzurra Ragone, Umberto Straccia, Tommaso Di Noia,
 Eugenio Di Sciascio, and Francesco M. Donini*
- Symbol Grounding for the Semantic Web 429
Anne M. Cregan

Natural Languages and Ontologies

- Ontology-Driven Semantic Ranking for Natural Language
 Disambiguation in the OntoNL Framework 443
Anastasia Karanastasi and Stavros Christodoulakis
- Web-Annotations for Humans and Machines 458
Norbert E. Fuchs and Rolf Schwitter

PANTO: A Portable Natural Language Interface to Ontologies	473
<i>Chong Wang, Miao Xiong, Qi Zhou, and Yong Yu</i>	

Mining the Web Through Verbs: A Case Study	488
<i>Peyman Sazedj and H. Sofia Pinto</i>	

Applications

What Have Innsbruck and Leipzig in Common? Extracting Semantics from Wiki Content	503
<i>Sören Auer and Jens Lehmann</i>	

SALT - Semantically Annotated L ^A T _E X for Scientific Publications	518
<i>Tudor Groza, Siegfried Handschuh, Knud Möller, and Stefan Decker</i>	

Annotating Relationships Between Multiple Mixed-Media Digital Objects by Extending Annotea	533
<i>Ronald Schroeter, Jane Hunter, and Andrew Newman</i>	

Describing Ontology Applications	549
<i>Thomas Albertsen and Eva Blomqvist</i>	

Querying and Web Data Models

The SPARQL Query Graph Model for Query Optimization	564
<i>Olaf Hartig and Ralf Heese</i>	

A Unified Approach to Retrieving Web Documents and Semantic Web Data	579
<i>Trivikram Immaneni and Krishnaprasad Thirunarayan</i>	

Distributed Knowledge Representation on the Social Semantic Desktop: Named Graphs, Views and Roles in NRL	594
<i>Michael Sintek, Ludger van Elst, Simon Scerri, and Siegfried Handschuh</i>	

Semantic Process Retrieval with iSPARQL	609
<i>Christoph Kiefer, Abraham Bernstein, Hong Joo Lee, Mark Klein, and Markus Stocker</i>	

Ontology Learning, Inference and Mapping II

Integrating Folksonomies with the Semantic Web	624
<i>Lucia Specia and Enrico Motta</i>	

IdentityRank: Named Entity Disambiguation in the Context of the NEWS Project	640
<i>Norberto Fernández, José M. Blázquez, Luis Sánchez, and Ansgar Bernardi</i>	

A Study in Empirical and 'Casuistic' Analysis of Ontology Mapping Results	655
<i>Ondřej Šváb, Vojtěch Svátek, and Heiner Stuckenschmidt</i>	

Acquisition of OWL DL Axioms from Lexical Resources	670
<i>Johanna Völker, Pascal Hitzler, and Philipp Cimiano</i>	

Personalization II

On Enriching Ajax with Semantics: The Web Personalization Use Case	686
<i>Kay-Uwe Schmidt, Ljiljana Stojanovic, Nenad Stojanovic, and Susan Thomas</i>	

A Semantic Web Service Oriented Framework for Adaptive Learning Environments	701
<i>Stefan Dietze, Alessio Gugliotta, and John Domingue</i>	

Semantic Composition of Lecture Subparts for a Personalized e-Learning	716
<i>Naouel Karam, Serge Linckels, and Christoph Meinel</i>	

System Descriptions

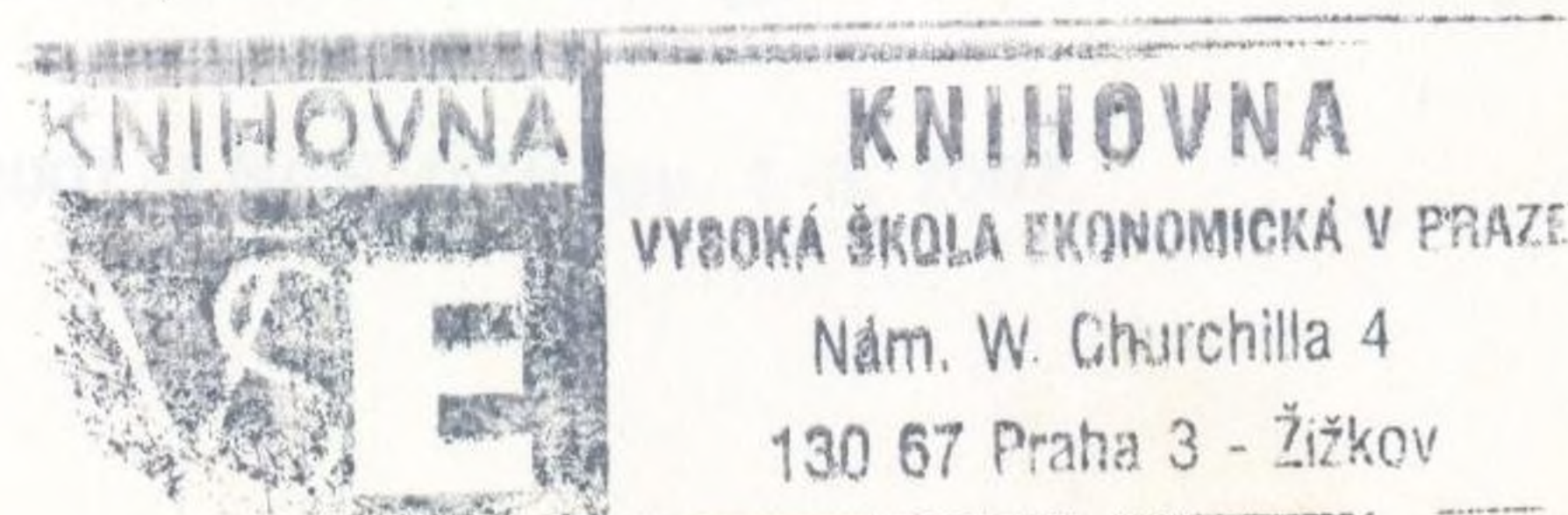
Caravela: Semantic Content Management with Automatic Information Integration and Categorization	729
<i>David Aumüller and Erhard Rahm</i>	

The NExT System: Towards True Dynamic Adaptations of Semantic Web Service Compositions	739
<i>Abraham Bernstein and Michael Dänzer</i>	

WSMO Studio – A Semantic Web Services Modelling Environment for WSMO	749
<i>Marin Dimitrov, Alex Simov, Vassil Momtchev, and Mihail Konstantinov</i>	

An Annotation Tool for Semantic Documents	759
<i>Henrik Eriksson</i>	

SWHi System Description: A Case Study in Information Retrieval, Inference, and Visualization in the Semantic Web	769
<i>Ismail Fahmi, Junte Zhang, Henk Ellermann, and Gosse Bouma</i>	



<i>Semantic Turkey: A Semantic Bookmarking Tool</i>	779
<i>Donato Griesi, Maria Teresa Pazienza, and Armando Stellato</i>	
The Web Service Modeling Toolkit - An Integrated Development Environment for Semantic Web Services	789
<i>Mick Kerrigan, Adrian Mocan, Martin Tanler, and Dieter Fensel</i>	
Understanding Large Volumes of Interconnected Individuals by Visual Exploration	799
<i>Olaf Noppens and Thorsten Liebig</i>	
System Description: An Orienteering Strategy to Browse Semantically-Enhanced Educational Wiki Pages	809
<i>Luciano T.E. Pansanato and Renata P.M. Fortes</i>	
Efficient Content Creation on the Semantic Web Using Metadata Schemas with Domain Ontology	819
<i>Onni Valkeapää, Olli Alm, and Eero Hyvönen</i>	
Author Index	829