



## Final Program

Last update: 30 July 2008

### Monday August 4

9.00 – 12.00 a.m.

GB A (till 11.30 a.m.)

#### Tutorials

##### **Tutorial 1: “Text Analytics for Semantic Computing - the Good, the Bad and the Ugly”**

Instructors: Meenakshi Nagarajan, Cartic Ramakrishnan and Amit Sheth

GB C

##### **Tutorial 3: “Semantic Business Process Management”**

Instructors: Agata Filipowska, Dimka Karastoyanova, Sebastian Stein, Michael Stollberg, and Maciej Zaremba

12.00 – 1.30 p.m.

#### Lunch (on your own)

1.30 – 4.30 p.m.

#### Tutorials

GB A

##### **Tutorial 4: “Enhancing Semantic via Knowledge Discovery from Distributed Multimedia Information Systems”**

Instructor: Arif Ghafoor

GB C

##### **Tutorial 6: “Utilizing Federated Knowledge in Semantic Web Applications”**

Instructor: Jans Aasman

9.00 a.m. –  
Ballroom DE

##### **Workshop: “Middleware for the Semantic Web: Enabling a Web of Knowledge and Services”**

10.00 a.m. – 11.00 a.m.

##### **Invited Talk: Ian Oliver, Nokia Research Center, Finland “Personal Semantic Web Through A Space Based Computing Environment”**

Towards a Semantic Enabled Middleware for Publish/Subscribe Applications

*Federico M. Facca, Srdjan Komazec, and Michal Zaremba*

Semantic Agent Programming Language (S-APL): A Middleware Platform

for the Semantic Web

*Artem Katasonov and Vagan Terziyan*

Towards a RESTful Plug and Play Experience in the Web of Things  
*Vlad Stirbu*

Implementation of a Novel Semantic Web Middleware Approach Based on Triplespaces

*Kia Teymourian, Lyndon Nixon, Daniel Wutke, Reto Krummenacher, and Hans Moritsch*

## Tuesday August 5

7.00 – 8.00 a.m.

**Breakfast**

8.00 – 8.30 a.m.

**Welcome to ICSC2008: Phillip Sheu**

Ballroom DE

8.30 – 9.30 a.m.

**Keynote Address:**

**“Building and verifying a shallow ontology for higher-quality NLP”**

***Eduard Hovy, Information Sciences Institute,  
University of Southern California***

Session Chair: Martha Palmer

9.30 – 10.00 a.m.

**Coffee Break**

10.00 – 12.00 a.m.

**Session 1**

Parallel Session 1 (GB A)

**Special Session: Mobile Semantic Computing**

Semantic Models for Ad Hoc Interactions in Mobile, Ubiquitous Environments

*Eric Bouillet, Mark Feblowitz, Zhen Liu, Anand Ranganathan, and Anton Riabov*

Mobile Mashups: Thoughts, Directions, and Challenges

*E. Michael Maximilien*

Semantic Web Approach to Personal Information Management on Mobile Devices

*Ora Lassila*

Parallel Session 2 (GB B)

**Industry Session**

Session Chair: Mark Wood

A Tool for Annotating Services with Domain Specific Semantics

*Nikolaos Loutas, Lemonia Giantsiou, Alex Simov, Vassilios Peristeras, and Konstantinos Tarabanis*

Appscio: A Software Environment for Semantic Multimedia Analysis

*Gerald Friedland, Eden Hensley, Ramesh Jain, and Jerry Schumacher*

Adopting Graph Traversal Techniques for Context-Driven Value Sets Extraction from Biomedical Knowledge Sources

*Jyotishman Pathak, Guoqian Jiang, Sridhar O. Dwarkanath, James D. Buntrock, and Christopher G. Chute*

Ontology-Based Topic Extraction Service from Weblogs

*Shinichi Nagano, Masumi Inaba, Yumiko Mizoguchi, Takayuki Iida, and Takahiro Kawamura*

Ontology Refactoring

*David A. Ostrowski*

Large-Scale Benchmarking of the OWL Interoperability of Semantic Web Technologies

*Raúl García-Castro and Asunción Gómez-Pérez*

Parallel Session 3  
(Ballroom DE)

**Natural Language Processing Session 1**

Session Chair: Martha Palmer

Text Categorization Based on Boosting Association Rules

*Yongwook Yoon and Gary G. Lee*

A Comparative Study of Feature Extraction Algorithms in Customer Reviews

*Liliana Ferreira, Niklas Jakob, and Iryna Gurevych*

Sentiment Regression: Using Real-Valued Scores to Summarize Overall Document Sentiment

*Adam Drake, Eric Ringger, and Dan Ventura*

Speech Emotion Classification Using Machine Learning Algorithms

*S. Casale, A. Russo, G. Scebba, and S. Serrano*

**12.00 – 1.30 p.m.**

**Lunch (on your own)**

**1.30 – 3.00 p.m.**

Ballroom DE

**Industry Panel**

**“Getting Traction and Not Skid Marks: The Rubber Meets the Road”**

Moderator: Mark D.

Wood, Eastman Kodak Company

*Panelists:*

Jans Aasman, CEO, Franz, Inc.

Jeffrey T. Pollock, Senior Director, Oracle

Raghu Ramakrishnan, Chief Scientist, Yahoo! Research

Michael Uschold, Senior Ontologist, Reinvent Technology

**3.00 – 4.00 p.m.**

**Coffee Break**

**4.00 – 5.30 p.m.**

Ballroom DE

**Demonstration Session**

Session Chair: Christoph Bussler

OPOSSum—An Online Portal to Collect and Share SWS Descriptions

*Ulrich Küster, Birgitta König-Ries, and Andreas Krug*

Semantically-Assisted Integration Query Editing in the AquaLogic Data Services Platform

*M. Carey, S. Ghandeharizadeh, K. Mehta, P. Mork, L. Seligman, S. Srivastava, and S. Thatte*

OPTIMA: Tool for Ontology Alignment with Application to Semantic Reconciliation of Sensor Metadata for Publication in SensorMap

*Ravikanth Kolli and Prashant Doshi*

Utilizing Federated Knowledge in Semantic Web Applications

*Jans Aasman*

Activity Recognition Using a Web 3.0 Database

*Jans Aasman*

Discovering Entities Relationships on the Web

*Wei Yu, Junpeng Chen, and Guoying Yu*

The WSMO-PA Service Editor

*Lemonia Giantsiou, Alex Simov, Nikolaos Loutas, Vassilios Peristeras, and Konstantinos Tarabanis*

ELF: A Constraint-Aware XQuery Engine for Processing XML Streams with Minimized Memory Footprint

*Ming Li, Murali Mani, and Elke A. Rundensteiner*

WSMX Middleware for Dynamic Discovery in B2B Integration

*Maciej Zaremba, Tomas Vitvar, Jacek Kopecký, and Omair Shafiq*

<b>10.00 a.m. – 5.30 p.m.</b> GB C	<b>Special Session: Scalability in Semantic Computing: The European View</b>
10.00 – 10.15 a.m.	<b>Opening</b> (Elena Simperl, STI Innsbruck)
10.15 – 11.15 a.m.	<b>Keynote Speaker - Real-World Strategies for Scaling</b> - (Randy Shoup, Distinguished Architect in the eBay Marketplace Architecture Group)
11.15 a.m. – 12.15 p.m.	<b>Session 1</b> (Session Chair: Federico Facca, STI Innsbruck) 11:15 - 11:45 SOA4All, Enabling the SOA Revolution on a World Wide Scale (Carlos Pedrinaci, Open University)  11:45 - 12:15 Entity Name System: The Back-bone of an Open and Scalable Web of Data (Heiko Stoermer, University of Trento)
12.15 – 1.30 p.m.	<b>Lunch</b>
3.00 – 5.30 p.m.	<b>Session 2</b> (Session Chair: Elena Simperl, STI Innsbruck) 3:00 - 3:30 <i>Towards LarKC: a Platform for Web-scale Reasoning</i> (Huang Zhisheng, Free University of Amsterdam)
3.30 – 4.00 p.m.	<b>Coffee Break</b> 4:00 - 4:30 <i>Semantic Business Process Management: Scaling up the Management of Business Processes</i> (Carlos Pedrinaci, Open University)  4:30 - 5:00 <i>Scalability in Semantic Computing: Semantic Middleware</i> (Reto Krummenacher, STI Innsbruck)  5:00 - 5:30 <i>A Conceptual Roadmap for Scalable Semantic Computing</i> (Graham Hench, STI International)
5.30 p.m.	<b>Closing</b>

## Wednesday August 6

7.00 – 8.00 a.m.

**Breakfast**

8.30 – 9.30 a.m.

Ballroom DE

**Keynote Address:**

**“The geospatial web - A state of the art report”**

**Michael F. Goodchild, Director of Spatial Studies,  
Department of Geography, University of California, Santa  
Barbara**

Session Chair: Gerald Friedland

9.30 – 10.00 a.m.

**Coffee Break**

10.00 – 12.00 a.m.

**Session 2**

Parallel Session 1 (GB A)

**Special Session: Semantic Analysis of Tactical Chat**

Military Textual Analysis and Chat Research

*Emily W. Medina*

DoD Collaboration and Chat Systems: Current Status and Way Ahead

*LorRaine T. Duffy*

Tactical Situation Assessment Technologies (TSAT)

*Emily W. Medina and LorRaine T. Duffy*

Topic Detection and Extraction in Chat

*Paige H. Adams and Craig H. Martell*

Parallel Session 2 (GB B)

**Multimedia Session 1**

Session Chair: Yan Liu

Semantics in Digital Photos: A *Contentual* Analysis

*Pinaki Sinha and Ramesh Jain*

S<sub>3</sub>G: A Semantic Sequence State Graph for Indexing Spatio-temporal  
Data – A Tennis Video Database Application

*Mitesh Naik, Vani Jain, and Ramazan S. Aygun*

The Semantic Clustering of Images and Its Relation with Low Level  
Color Features

*Raquel E. Patiño-Escarcina and Jose Alfredo Ferreira Costa*

An Effective Multi-concept Classifier for Video Streams

*Shu-Ching Chen, Mei-Ling Shyu, and Min Chen*

Disambiguating Sounds through Context

*Maria E. Niessen, Leendert van Maanen, and Tjeerd C. Andringa*

Parallel Session 3 (GB C)

**Systems & Applications**

Session Chair: Ramazan Aygun

Exploiting Semantics for Personalized Story Creation

*Mark D. Wood*

IKHarvester – Informal eLearning with Semantic Web Harvesting

*Jacek Jankowski, Adam Westerski, Sebastian Ryszard Kruk, Tadhg  
Nagle, and Jarosław Dobrzański*

Technology Investment Radar: A Tool to Automatically Track  
Technology Maturation

*Peter Z. Yeh, Alex Kass, and Daniel R. Farina*

Towards Semantic Analysis of Conversations: A System for the Live  
Identification of Speakers in Meetings

*Oriol Vinyals and Gerald Friedland*

TcruziKB: Enabling Complex Queries for Genomic Data Exploration  
*Pablo N. Mendes, Bobby McKnight, Amit P. Sheth, and Jessica C. Kissinger*

Semantic Approach to Middleware-Driven Run-time Context-Aware  
Adaptation Decision  
*Edwin J. Y. Wei and Alvin T. S. Chan*

**12.00 – 1.30 p.m.**

**Lunch (on your own)**

**1.30 – 3.30 p.m.**

**Session 3**

Parallel Session 1 (GB A)

**Semantic Web Session 1**

Session Chair: Carlos Pedrinaci

Leveraging Folksonomies for Ontology Evolution in E-learning  
Environments

*Carlo Torniai, Jelena Jovanović, Scott Bateman, Dragan Gašević,  
and Marek Hatala*

Serving the Sky: Discovering and Selecting Semantic Web Services  
through Dynamic Skyline Queries

*Dimitrios Skoutas, Dimitris Sacharidis, Alkis Simitsis, and Timos Sellis*

A Unified Conceptual Model for Representation of Terminologies and  
References

of Terms across Data Repositories in Biomedicine

*Martin Romacker, Angela Fahrni, and Thérèse Vachon*

WSMO-Lite: Lowering the Semantic Web Services Barrier with  
Modular and Light-Weight Annotations

*Jacek Kopecký and Tomas Vitvar*

Parallel Session 2 (GB B)

**Services & Software Engineering Session 1**

Session Chair: TBD

Hybrid Semantic Web Service Retrieval: A Case Study with OWLS-MX  
*Matthias Klusch, Patrick Kapahnke, and Benedikt Fries*

Ontology-Based Security Policies for Supporting the Management of  
Web Service Business Processes

*Diego Zuquim Guimarães Garcia and Maria Beatriz Felgar de Toledo*

On the Empirical Evaluation of Semantic Web Service Approaches:  
Towards Common SWS Test Collections

*Ulrich Küster and Birgitta König-Ries*

Deployed Semantic Services for the Common User of the Web: A  
Reality Check

*Matthias Klusch and Xiguo Zhing*

Combining Domain-Driven Approach with Requirement Assets  
for Networked Software Requirements Elicitation

*Wei Liu, Ke-Qing He, Kui Zhang, and Jian Wang*

Parallel Session 3 (GB C)

**Knowledge Engineering & Data Mining Session 1**

Session Chair: Cliff Joslyn

Extracting and Exploring the Geo-temporal Semantics of Textual  
Resources

*Bruno Martins, Hugo Manguinhas, and José Borbinha*

Applications of Voting Theory to Information Mashups

*Alfredo Alba, Varun Bhagwan, Julia Grace, Daniel Gruhl, Kevin Haas,  
Meenakshi Nagarajan, Jan Pieper, Christine Robson, and Nachiketa  
Sahoo*

A New Content-Based Model for Social Network Analysis  
*Paola Velardi, Roberto Navigli, Alessandro Cucchiarelli, and Fulvio D'Antonio*

**3.30 – 4.00 p.m.**

**Coffee Break**

**4.00 – 5.30 p.m.**

**Session 4**

Parallel Session 1 (GB A)

**Semantic Web Session 2**

Session Chair: Elena Simperl

Efficient Selection and Integration of Data Sources for Answering Semantic Web Queries

*Abir Qasem, Dimitre a. Dimitrov, and Jeff Heflin*

Semantic Search Meets the Web

*Miriam Fernandez, Vanessa Lopez, Marta Sabou, Victoria Uren, David Vallet, Enrico Motta, and Pablo Castells*

Using Semantics for News Navigation

*Walter Kasper, Jörg Steffen, and Yajing Zhang*

Wikipedia in Action: Ontological Knowledge in Text Categorization

*Maciej Janik and Krys J. Kochut*

Robust Disambiguation of Web-Based Personal Names

*Ying Chen, James Martin, and Martha Palmer*

Parallel Session 2 (GB B)

**Multimedia Session 2**

Session Chair: Yan Liu

Optimal Consensus Intuitive Hand Gesture Vocabulary Design

*Helman I. Stern, Juan P. Wachs, and Yael Edan*

Dimensionality Reduction for Descriptor Generation in Rushes Editing

*Yang Liu, Yan Liu, and Keith C. C. Chan*

Do These News Videos Portray a News Event from Different Ideological Perspectives?

*Wei-Hao Lin and Alexander Hauptmann*

New Real-Time Approaches for Video-Genre-Classification Using High-Level Descriptors and a Set of Classifiers

*Ronald Glasberg, Sebastian Schmiedeke, Martin Mocigemba, and Thomas Sikora*

Parallel Session 3 (GB C)

**Natural Language Processing Session 2**

Session Chair: Iryna Gurevych

ASKNet: Creating and Evaluating Large Scale Integrated Semantic Networks

*Brian Harrington and Stephen Clark*

Annotating an Extension Layer of Semantic Structure for Natural Language Text

*Yulan Yan, Yutaka Matsuo, Mitsuru Ishizuka, and Toshio Yokoi*

Improving Verb Sense Disambiguation with Automatically Retrieved Semantic Knowledge

*Dmitriy Dligach and Martha Palmer*

Exploring Similarity Measures for Context-Aware User Interfaces

*Melanie Hartmann, Torsten Zesch, Max Mühlhäuser, and Iryna Gurevych*

Discourse Connective Argument Identification with Connective Specific Rankers

*Robert Elwell and Jason Baldridge*

**6.00 – 9.00 p.m.**  
Ballroom DE

**Keynote Address:**  
**“Privacy, Regulations, and Trust: What you need to make  
your technology successful.”**  
***John Toebes, Chief Architect, Media Solutions Group***  
***Cisco***



## Thursday August 7

7.00 – 8.00 a.m.

**Breakfast**

8.30 – 9.30 a.m.

Ballroom DE

**Keynote Address:**

**“Semantics on the Web: How do we get there?”**

**Raghu Ramakrishnan, Chief Scientist for Audience, Yahoo! Research**

Session Chair: Jaideep Srivastava

9.30 – 10.00 a.m.

**Coffee Break**

10.00 – 11.30 a.m.

**Academic Panel**

Ballroom DE

**“Semantic Computing: Issues, Challenges, and Future Research Directions”**

Moderator:

Shu-Ching Chen, Florida International University

*Panelists:*

Arif Ghafoor, Purdue University, USA

Eduard Hovy, University of Southern California, USA

C. V. Ramamoorthy, University of California Berkeley, USA

Phillip Sheu, University of California, Irvine, USA

11.30 – 1.30 p.m.

**Lunch (on your own)**

1.30 – 3.30 p.m.

**Session 5**

Parallel Session 1 (GB A)

**Semantic Web Session 3**

Session Chair: Alkis Simitsis

Semantic Integration of Peer to Peer Systems: A Doxastic Approach  
*Guido Vetere, Fabrizio Venditti, and Alessandro Faraotti*

Non-parametric Statistical Learning Methods for Inductive Classifiers in Semantic Knowledge Bases

*Claudia d’Amato, Nicola Fanizzi, and Floriana Esposito*

Semantic-Based Fuzzy Reasoning for Compliance Auditing  
*Frederick Yip, Alfred Ka Yiu Wong, Nandan Parameswaran, and Pradeep Ray*

An Oddly-Positioned Position Paper on Context and Ontology  
*Simone Santini*

Review and Alignment of Tag Ontologies for Semantically-Linked Data in Collaborative Tagging Spaces

*Hak Lae Kim, Alexandre Passant, John G. Breslin, Simon Scerri, and Stefan Decker*

Parallel Session 2 (GB B)

**Services & Software Engineering Session 2**

Session Chair: TBD

Resolving Multiperspective Requirements Traceability through Ontology Integration

*Namfon Assawamekin, Thanwadee Sunetnanta, and Charnyote Pluempitiwiriawej*

Embedded Modules for Speaker Classification

*Michael Feld*

Analysis of Effects- and Preconditions-Based Service Representation in Ubiquitous Computing Environments

*Aitor Urbieto, Ekain Azketa, Inma Gomez, Jorge Parra, and Nestor Arana*

An Ontology-Based Integrated Assessment Framework for High-Assurance Systems  
*Raymond Paul, I-Ling Yen, Farokh Bastani, Jing Dong, Wei-Tek Tsai, Krishna Kavi, Arif Ghafoor, and Jaideep Srivastava*

Mediatability: Estimating the Degree of Human Involvement in XML Schema Mediation  
*Karthik Gomadam, Ajith Ranabahu, Lakshmish Ramaswamy, Amit P. Sheth, and Kunal Verma*

Parallel Session 3 (GB C)

**Knowledge Engineering & Data Mining Session 2**

Session Chair: Andrew Schein

A Concept Based Indexing Approach for Document Clustering  
*Simona Barresi, Samia Nefti, and Yacine Rezgui*

Sentence Induced Transformations in “Conceptual” Spaces  
*Agnese Augello, Giorgio Vassallo, Salvatore Gaglio, and Giovanni Pilato*

Exploiting Term Relations for Semantic Hierarchy Construction  
*Cliff Joslyn, Patrick Paulson, and Karin Verspoor*

Exploiting Semantic Query Context to Improve Search Ranking  
*Ziming Zhuang and Silviu Cucerzan*