

# Keynotes

## Linked Data, Web 3.0 and the Semantic Web

Jim Hendler, Rensselaer Polytechnic Institute, USA

Recently, some exciting things have been happening on the Web. One of them you're probably already familiar with: the so-called "Web 2.0" revolution with the growth of blogging, wikis, tagging spaces and social networking. However, somewhat in the background another set of technologies, has been growing, and even the Web 2.0 crowd is starting to take notice. This talk will explore these new technologies and some of the emerging areas of excitement.

## Event Web: The Web of Knowledge and Experiences

Ramesh Jain, University of California, Irvine, USA

The fundamental information unit in the current Web, the WWW, is a node which currently is a document (or a page) that is connected to other nodes using manually created referential links. By creating infrastructure for processing, storage, communication, organization, search, and presentation of all information available on this Web, the most accessible and ubiquitous source of knowledge and communication in human history has been created. The Web created a cyberspace in which people communicate, do research, shop, and entertain. The impact of cyberspace is clear from the fact that in less than a decade a company rose from its foundation to becoming the most influential and wealthiest company on the planet by following its mission: Google's mission is to organize the world's information and make it universally accessible and useful. Of course the entire world's information has to be in the cyberspace. In this talk we will discuss representation of events, operations and transformations associated with events, and the infrastructure required to build the EventWeb. We will present these using two applications that we are building using this approach.

## Social Computing: From Social Informatics to Social Intelligence

Feiyue Wang, Chinese Academy of Sciences, China

With the advance of Internet and Web technologies, the increasing accessibility of computing resources and mobile devices, the prevalence of rich media contents, and the ensuing social, economic, and cultural changes, computing technology and applications have evolved quickly over the past decade. They now go beyond personal computing, facilitating collaboration and social interactions in general. As such, social computing, a new paradigm of computing and technology development, has become a central theme across a number of information and communication technology (ICT) fields. It has become a hot topic attracting broad interest from not only researchers but also technologists, software and online game vendors, Web entrepreneurs, business strategists, political analysts, and digital government practitioners, to name a few. In this presentation, we will address fundamental issues and methods, especially the ACP approach in social computing.

# SKG2008 Program

## Wednesday (Dec.3)

14:00-20:00	Registration (Lobby of the Building No. 8, Friendship Hotel)
19:00-20:30	<b>Welcome Reception + Culture Program</b> [ Restaurant: Juxiu Restaurant, Friendship Palace]

## Thursday (Dec.4) (20 min / per R, 15 min / per S)

9:00-9:10	<b>Opening Ceremony</b> [Chair: <i>Tharam Dillon, Hai Zhuge</i> Room: Meeting Room 1, Building No. 8]
9:10-10:10	<b>Invited Talk:</b> Linked Data, Web 3.0 and the Semantic Web <i>Prof. Jim Hendler</i>
10:10-10:30	Coffee Break
10:30-12:30	Session 1: Semantics and Semantic Grid [Chair: <i>Tharam Dillon</i> Room: Meeting Room 1, Building No. 8]
R	ReIBAC: Relation Based Access Control (Invited Paper) <i>Fausto Giunchiglia</i>
R	A Testing Framework for OWL-DL Reasoning <i>Marian Babik, Ladislav Hluchy</i>
R	Modeling Semantic Web Service using Semantic Templates <i>Liang Hu, Jian Cao, Zhiping Gu</i>
R	MrCoM: A Cost Model for Range Query Translation in Deep Web Data Integration <i>Fangjiao Jiang, Linlin Jia, Weiyi Meng, Xiaofeng Meng</i>
R	SEMREG-Pro: A Semantic based Registry for Proactive Web Service Discovery using Publish-Subscribe Model <i>kamran qadir, hafiz farooq ahmad</i>
R	Measuring Knowledge Delivery Quantity of Associated Knowledge Flow <i>Shunxiang Zhang, Xiangfeng Luo, Jinjun Chen, Zheng Xu, Jie Yu, Weimin Xu</i>
12:30-13:30	Lunch [Restaurant: Juxiu Restaurant, Friendship Palace]
14:00-15:45	Session 2: Knowledge and Knowledge Grid [Chair: <i>Bruce Spencer</i> Room: Meeting Room 2, Building No. 8]
R	Research on the RSM-Based Multidimensional Recommendation <i>Linrui Lu, Zhurong Zhou, Yuhui Qiu, Wei Deng</i>
R	ASCSS: An Automatic Service Composition Approach Based on Service Similarity <i>Wei Jiang, Songlin Hu, Wei Li, Wei Yan, Zhiyong Liu</i>
R	Semantic Service Discovery using SAWSDL and SPARQL

	<i>Kashif Iqbal, Marco Luca Sbodio, Vassilios Peristeras, Giovanni Giuliani</i>
S	A Dynamic Ontology Mapping Architecture for a Grid Database System <i>Nelson C.N. Chu, Quang M. Trinh, Ken E. Barker, Reda S. Alhajj</i>
S	Managing Change History in Web Ontologies <i>Asad Masood Khattak, Khalid Latif, Sharifullah Khan, Nabeel Ahmed</i>
S	Modeling and Managing Collaborative Sessions for a Virtual Organization <i>Bruce Spencer, Sandy Liu</i>
S	A Study on Diverse Scholar Agents Participating in the Second Price Sealed Bid Citation Auction <i>Josep Lluís de la Rosa, Boleslaw Szymanski</i>
14:00-	Session 3: Advanced Networking Model
15:45	[Chair: <i>Weichang Du</i> Room: Meeting Room 3, Building No. 8]
R	Structure Discovery Queries in Disk-Based Semantic Web Databases <i>Kemafor Anyanwu, Pradeep Kumar Murukannaiah, Angela Maduko</i>
R	Mining Wikipedia for Discovering Multilingual Definitions on the Web <i>Alejandro Figueroa</i>
R	Automatic Creation of N-lingual Synonymous Word Sets <i>Yanchen Wu, Fang Li, Rie Tanaka, Toru Ishida</i>
S	Large-Scale Knowledge Management for Collaborative Work <i>Jonas Schulte, Thorsten Hampel, Kerstin Voss</i>
S	Developing Reliable Mediators for Web Service Interactions <i>Baoping Lin, Qing Li, Naijie Gu</i>
S	Extracting Multi-Records from Web Pages <i>Tian Xia</i>
S	Effective Web Service Retrieval Based on Clustering <i>Dong Shou and Chi-Hung Chi</i>
15:45-	Coffee Break
16:15	
16:15-	Session 4: Semantics and Semantic Grid
18:00	[Chair: <i>Yutaka Kidawara</i> Room: Meeting Room 1, Building No. 8]
R	TBSearch: Trust based Search in Unstructured Peer-to-peer Networks <i>Hoda Mashayekhi, Jafar Habibi, Habib Rostami</i>
R	An Active Resource Management Approach In Software Process <i>Jin Liu: Hainan Zhou: Bing Li</i>
R	A Collaborative Ontology Construction Tool with Conflicts Detection <i>Yewang Chen, Shaolei Zhang, Xin Peng, Wenyun Zhao</i>
R	Ontology Mapping: As a Binary Classification Problem <i>Ming Mao, Yefei Peng, Michael Spring</i>
R	The Ontology Driven Approach to Vegetable Supply Chain Knowledge Acquisition System <i>Wandong Sun</i>
16:15-	Session 5: Knowledge and Knowledge Grid
18:00	[Chair: <i>Marian Bubak</i> Room: Meeting Room 2, Building No. 8]

- R Semantic Web-Based Data Service Discovery and Composition  
*Linhua Zhou, Huajun Chen, Junjian Wang, Yu Zhang*
- R Semantically Enhanced Grid Resource Management  
*Kamran Qadir, Falak Nawaz, Raihan Ur Rasool, H. Farooq Ahmad, Shahid Mahmood*
- R Towards More Effective Text Summarization Based on Textual Association Networks  
*Yuhui Tao, Shuigeng Zhou, Wai Lam, Jihong Guan*
- S An Architecture for Collaborative Filtering in Grid Portal Recommendation System  
*Fang Juan, Liang Wencan*
- S An Efficient Semantic Discovery of Grid Resources  
*Shahid Mahmood, H. Farooq Ahmed, Raihan ur Rasool, Kamran Qadir*
- S An Online Classification Approach Based on Universal Inter-arrival Time  
*Minhuo Hong, Rentao Gu, Hongxiang Wang, Yuefeng Ji*
- S Automatic Question Translation Based on Semantic Pattern  
*Tianyong Hao, Liu Wenyin*

16:15- Session 6: Advanced Networking Model  
18:00 [Chair: *Qing Li* Room: Meeting Room 3, Building No. 8]

- R Transition System Semantics of DFL as a Scientific Workflow Language  
*Nanshan Du, Yiwen Liang, Qing Li, Linxia Du*
- R Measuring Semantic Similarity between Resource Spaces  
*Zhixing Huang, Yuhui Qiu*
- R P2P Schema-Mapping over Network-bound XML Data  
*Carmela Comito, Domenico Talia*
- S Chinese Text Classification Based on the BVB Model  
*Rui Liu, Minghu Jiang*
- S Concept Similarity Matching Based on Semantic Distance  
*Jike Ge, Yuhui Qiu*
- S Embracing Scientific Workflow Knowledge into IDE  
*Nanshan Du, Qing Li, Yiwen Liang, Linxia Du*
- S An Efficient Approach for Managing Replaceability of Web Services  
*Dunlu Peng, Qingkui Chen*

19:00- **Conference Banquet + Culture Program**  
21:00 [Restaurant: Juxiu Restaurant, Friendship Palace]

**Friday (Dec.5)**  
(20 min / per R, 15 min / per S)

- 9:00- **Invited Talk:** Event Web: The Web of Knowledge and Experiences  
10:00 (Room: Meeting Room 1, Building No. 8)  
*Prof. Ramesh Jain*

10:00- Coffee Break  
10:30  
10:30- **Invited Talk:** Social Computing: From Social Informatics to Social Intelligence

11:30	<i>Prof. Feiyue Wang</i>
12:00-	Lunch
13:30	[Restaurant: Juxiu Restaurant, Friendship Palace]
14:00-	Session 7: Semantics and Semantic Grid
15:45	[Chair: <i>Bruce Spencer</i> Room: VIP Room]
R	An Ontology Model for Execution Records of Grid Scientific Applications <i>Bartosz Balis, Marian Bubak</i>
R	A Transport Service Ontology-based Focused Crawler <i>Hai Dong, Farookh Khadeer Hussain, Elizabeth Chang</i>
R	Ontology Driven Query Expansion in Data Integration <i>Waris Ali, Sharifullah Khan</i>
R	A Collective Intelligence Approach to Collaborative Knowledge Creation <i>Krissada Maleewong, Chutiporn Anutariya, Vilas Wuwongse</i>
R	Approaching the Interconnection of Heterogeneous Knowledge Bases on a Knowledge Grid <i>Takafumi Nakanishi, Koji Zettsu, Yutaka Kidawara, Yasushi Kiyoki</i>
14:00-	Session 8: Knowledge and Knowledge Grid
15:45	[Chair: <i>Tharam Dillon</i> Room: Meeting Room 3, Building No. 8]
R	Community Discovery Based on Social Actors' Interests and Social Relationships <i>Fei Yan, Jing Jiang, Yang Lu, Qingjun Luo, Ming Zhang</i>
R	Conjoint Data Mining of Structured and Semi-structured Data <i>Qi H. Pan, Fedja Hadzic, Tharam S. Dillon</i>
R	Duplicate Records Cleansing with Length Filtering and Dynamic Weighting <i>Li Huang, Hai Jin, Pingpeng Yuan, Fan Chu</i>
R	Balanced Tidset-based Parallel FP-tree Algorithm for the Frequent Pattern Mining on Grid System <i>Jiayi Zhou, Kun-Ming Yu</i>
R	Information Federation in Grids <i>Mehmet S. Aktas, Geoffrey Fox, Marlon Pierce</i>
S	A Study on the Comparison between Content-Based and Preference-Based Recommendation Systems <i>Huan-Ming Chuang, Li-Chuan Wang, and Chu-Ching Pan</i>
14:00-	Session 9: Advanced Networking Model
15:45	[Chair: <i>Liming Chen</i> Room: Meeting Room 2, Building No. 8]
R	Mining Wikipedia Resources for Discovering Answers to List Questions in Web Snippets <i>Alejandro Figueroa</i>
R	Modeling Hierarchical User Interests Based on HowNet and Concept Mapping <i>Yihong Li, Fang Li</i>
R	Provenance Support for Grid-Enabled Scientific Workflows <i>Fakhri Alam Khan, Yuzhanghan, Sabri Pllana,, Peter Brezany</i>
S	Enabling Access to WSRF on Mobile Devices <i>Jan Christian Mangs, Shihong Huang, Junwei Cao</i>
S	Semantic-Enabled and Agent-based Environment Aware Agile Service Utilities <i>Liming Chen, Vlado Stankovski, Zhongzhi Shi, Paul Watson</i>
S	An Integrated Method for Text Information Retrieval

	<i>Xiang-hua Xu, Jia-lai Huang, Jian Wan, Cong-feng Jiang</i>
S	Intelligent Agents Using Competitive Bidding Mechanism in Storage Grids <i>Deng Jinsheng, Wang Shaohong, Yang Yuexiang</i>
15:45-	
16:15	Coffee Break
16:15-	Session 10: Semantics and Semantic Grid
18:00	[Chair: <i>Weichang Du</i> Room: Meeting Room 2, Building No. 8]
R	Load Balancing in Non-dedicated Grids Using Ant Colony Optimization <i>Yixiong Chen</i>
R	A Gradient Reconfiguration Mechanism of Directed Diffusion in Wireless Sensor Networks <i>Jian Wan, Jianrong Wu, Xianghua Xu, Miaoqi Fang</i>
R	PVS-WDBM: A Workflow Data Batch-Operation Model based on Partial Vector Space <i>Jianxun Liu, Ting Li</i>
S	A Resource Discovery Framework for Semantic Grids Based on the Interface-Based Modular Ontology Formalism <i>Faezeh Ensan, Alireza Ensan, Weichang Du</i>
S	Probability Convergence based Particle Swarm Optimization for Multiple Constrained QoS Multicast Routing <i>Xing Jin, Lin Bai, Yuefeng Ji, Yongmei Sun</i>
S	Semantic Hyperlink Analysis Model <i>Gang Liu, Yuqin Lv</i>
S	Supporting Dynamic Parallel Application Execution in the Grid <i>Hao Liu, Amril Nazir, and Soren-Aksel Sorensen</i>
16:15-	Session 11: Knowledge and Knowledge Grid
18:00	[Chair: <i>Xiaoping Sun</i> Room: Meeting Room 3, Building No. 8]
R	Inside the NIGM Grid Service: Implementation, Evaluation and Extension <i>Peter Brezany, Ibrahim Elsayed, Yuzhang Han, Ivan Janciak, Alexander Woehrer, Lenka Novakova, Olga Stepankova, Monika Zakova, Jianguo Han, Ting Liu</i>
R	An eLearning Activity Control Model for SCORM' s Sequencing Prerequisites <i>Narae Park, Hyuna Kim, Kwanghoon Kim, Hwajung Park, Junchul Chun, Yeiseon Hwang</i>
R	AODE for Source Code Metrics for Improved Software Maintainability <i>Yingjie Tian, Chuanliang Chen, Chunhua Zhang</i>
S	Traffic Engineering-based Load Balancing Algorithm in GMPLS Networks <i>Yao Cheng, Yue Wang, Yueming Lu, Yuefeng Ji, Yongmei Sun</i>
S	Use of UML 2.1 to Model Multi-Agent Systems based on a Goal-driven Software Engineering Ontology <i>Pornpit Wongthongtham, Darshan Dillon, Tharam Dillon, Elizabeth Chang</i>
S	Web Object Mining Based on Entropy Pruning <i>Kun Gao, Rui Liu, Deqing Wang</i>
S	Context-based Integrating Model of Knowledge and Business Processes <i>Guilin Wu, Yinglin Wang, Jianmei Guo, Rongwei Ye</i>
16:15-	Session 12: Semantic Link Network
18:00	[Chair: <i>Zhixing Huang</i> Room: VIP Room]
R	Automatically Discovering Semantic Links among Documents

- Hai Zhuge, Junsheng Zhang*
- R Schema Theory for Semantic Link Network
- Hai Zhuge, Yunchuan Sun, Junsheng Zhang*
- R Construction and Aggregation of Citation Semantic Link Network
- Zhixing Huang, Yuhui Qiu*
- S A Web of Active Knowledge
- Joe Geldart, Stephen Cummins, William Song*
- S Easy Recommendation Based on Probability Model
- Chen Jian, Huang Jin, Min Huaqing*
- S A Quantum-Inspired Evolutionary Algorithm for Coding Resource Optimization based Network Coding Multicasting
- Huanlai Xing, Lin Bai, Yuefeng Ji, Yongmei Sun*
- S A Searchable Knowledge Map Based on Ontology
- Qi Xiong, Yinglin Wang, Jianmei Guo, Guilin Wu*