



ISWC 2014

Riva del Garda - Trentino, Italy

The 13th INTERNATIONAL SEMANTIC WEB CONFERENCE

19-23 October 2014
Riva del Garda - Trentino






SWSA
SEMANTIC WEB SCIENCE ASSOCIATION

Pocket Guide

MAP OF RIVA DEL GARDA

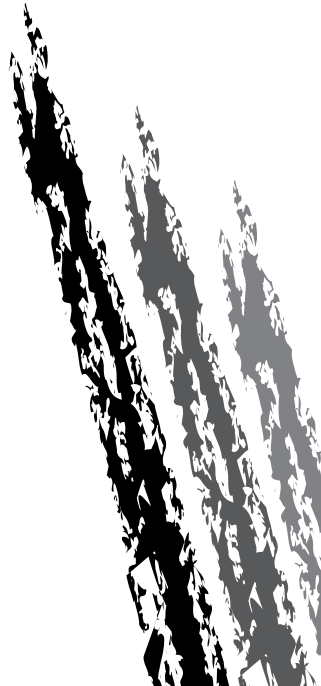


-  Palacongressi - Main Conference Center
-  Rocca di Riva - Welcome reception
Piazza Cesare Battisti 3/A
-  Bus Station - Viale Trento



ISWC 2014

Riva del Garda - Trentino, Italy



While the data is considered to be true and correct at the date of publication, changes in circumstances after the time or publication may impact or further impact upon the accuracy, correctness and completeness of the data.

Program printed on 10th October 2014.

For the updated program please refer to the website:

http://iswc2014.semanticweb.org/program_glance

Graphic project and print

Publistampa Arti grafiche, Pergine Valsugana



Dear ISWC Participant,
it is my great pleasure to welcome you to the 13th International Semantic Web Conference – the major international forum where the latest research results and technical innovations on all aspects of the Semantic Web and Linked Data are presented.

This past year has been incredibly exciting with regards to research and development in our field, and this excitement is reflected in our conference program. The Semantic Web is now a maturing area. We see a rising buy-in from the commercial and public sectors and enthusiastic adoption in scientific and research disciplines. Linked Data is pervasive: from enabling government transparency to helping integrate data in biomedicine; from publishing data in museums and media organisations to underpinning enterprise integration platforms. Significantly, major companies like Google and Yahoo have created their own “knowledge graphs” that power semantic search, smart processing and data delivery. Greater adoption brings further research challenges and a new impetus to innovate. It is a pleasure to be part of a community that so successfully balances research rigor with practical relevance.

ISWC 2014 has attracted four co-located events: the welcome return of OWLED (The OWL Experiences and Directions Workshop); the LinkedUp Vici Competition, the PRELIDA (PREserving LInked DAta) project workshop and the newly launched European Ontology Network (EUON) town meeting.

ISWC 2014 itself will start with workshops and tutorials. This year we will have 8 tutorials to introduce crucial advances in our and related fields

and 22 workshops including a Developers workshop focusing on the semantic web and the browser.

For the next generation of researchers and practitioners, there are two student events: the Doctoral Consortium on Monday, where senior researchers will provide practical advice on how students can improve their research, and the Mentoring Lunch, a fun and informative event where students can get answers to many questions on how to go about their research career in an informal discussion with senior members of the community from both research and practice.

The main conference will begin on Tuesday with a packed program. We have four keynotes from outstanding leaders; paper presentations, posters, and demos; the return of the lightning talks session and the ever popular Semantic Web Challenge. This year we have three peer-reviewed paper tracks. Our traditional research and in use tracks are joined by one showcasing replication studies, benchmarks, datasets and software (RBDS). This new track gives our community the opportunity to report useful contributions that would otherwise be overlooked. Along with the regular papers the industry track is crammed with "Pechakucha" style talks – a format in which 20 slides are shown for 20 seconds each. That should keep the presentations concise and fast-paced!

ISWC is not just about scientific and technical presentations. It is an opportunity for the community to gather together, have a say in the way the conference series is run, and to meet old friends and make new ones. The Semantic Web Science Association, the non-profit organisation

that runs the ISWC series, holds its Town Hall meeting on Wednesday right before the social banquet and party. The poster and demo session the day before will be combined with a reception and we open the main conference on Monday night in Rocca, a fortress in the town center of Riva, with aperitifs while being serenaded by a mountain choir. Our mixture of high culture and party music is sure to make this a fun event. I would like to thank our sponsors, whose generous contributions have enabled us to put on such a full social program without hurting the pockets of our delegates.

Putting together such a massive event requires an outstanding and hard-working team. I owe all members of the Organizing Committee my gratitude for doing such an excellent job. They invested hours of hard volunteer work into making ISWC 2014 happen. If you see them in the venue, on the platforms or on the dance floor please thank them too. I want to especially thank the local organising team and in particular Luciano Serafini and Chiara Ghidini, who have just been amazing and a joy to work with.

It's time to start. Enjoy the conference!

Carole Goble
General Conference Chair, ISWC 2014



WELCOME TO ISWC RIVA DEL GARDA 2014

It is an honour and special pleasure for us to welcome you to Riva del Garda - Trentino as participant of the 13th International Semantic Web Conference.

Trentino is a small region, of the north east part of Italy, famous for its beautiful mountains, alpine lakes, skiing resorts, and other natural beauties. But this not the only richness of this region. Culture, social solidarity and education have always been important pillars of Trentino's society. In particular, since the advent of computer science and artificial intelligence, Bruno Kessler (a local politician) had the intuition of creating, in the mid '80s, a Center for Scientific and Technological Studies (IRST) – now Fondazione Bruno Kessler – with the main objective of developing research and technologies in the various disciplines of artificial intelligence, microelectronics, and surface physics. Since then, the scientific and technological competencies available in the area, complemented by a strategic political vision, have helped Trentino to attract talented researchers and companies in the various areas of information technology, which found a fertile ground for developing new ideas and investing in new technologies.

It is within this background that, more than two years ago, we decided to propose Trentino as a location for ISWC. Several local organisations endorsed our proposal, and lately supported it with an excellent level of sponsoring. Organizing such a complex and large conference has been a big challenge, and we tried our best to meet all the requirements from the organizing committee and the participants. This was not possible without the valuable support of the FBK participants for organizing events. We want to thank Annalisa Armani, Silvia Malesardi and Alessandra Frongia; and all the volunteers who have contributed to the event.

We invite you all to enjoy the conference; we also invite you to enjoy the attractions offered by this beautiful region of Italy. As you will certainly see, Riva del Garda offers beautiful surroundings. It is also within reach of important Italian cultural and historical sites.

We wish you a pleasant stay in Riva. ISWC local organizing team will do its best to make ISWC 2014 a remarkable event for all of you.

Chiara Ghidini and Luciano Serafini

Local Conference Chairs, ISWC 2014



General Chair

Carole Goble
University of Manchester - UK

Local Chairs

Chiara Ghidini
Fondazione Bruno Kessler - Italy
Luciano Serafini
Fondazione Bruno Kessler - Italy

Research Track Chairs

Peter Mika
Yahoo Labs - Spain
Tania Tudorache
Stanford University - USA

In Use Track Chairs

Craig Knoblock
University of Southern California -
USA
Denny Vrandečić
Google - USA

Industry Track Chairs

Richard Benjamins
Telefónica - Spain
Alexander G. Castro
linkingdata I/O LLC, Austin, Texas -
USA
Axel Polleres
Vienna University of Economics
and Business - Austria

**Replication, Benchmark,
Data and Software Track
Chairs**

Abraham Bernstein
University of Zurich - Switzerland
Chris Welty
Google - USA

**Workshops and Tutorials
Chairs**

Lora Aroyo
VU University Amsterdam -
The Netherlands
Johanna Völker
University of Mannheim -
Germany

**Posters and Demos
Chairs**

Matthew Horridge
Stanford University - USA
Marco Rospocher
Fondazione Bruno Kessler - Italy
Jacco van Ossenbruggen
Centrum voor Wiskunde
en Informatica - The Netherlands

**Doctoral Consortium
Chairs**

Paul Groth
VU University Amsterdam -
The Netherlands
Natasha Noy
Google - USA

Proceedings Chair

Krzysztof Janowicz
University of California - USA

**Semantic Web Challenge
Chairs**

Sean Bechhofer
University of Manchester - UK
Andreas Harth
Karlsruhe Institute of Technology -
Germany

Sponsorship Chairs

Roberta Cuel
University of Trento - Italy
Jens Lehmann
University of Leipzig - Germany
Vincenzo Maltese
DISI - University of Trento - Italy

Publicity Chair

Mauro Dragoni
Fondazione Bruno Kessler - Italy

Metadata Chair

Li Ding
Memect - USA
Jie Bao
Memect - USA

Student Coordinators

Oscar Corcho
Universidad Politécnica
de Madrid - Spain
Miriam Fernandez
KMI, Open University - UK

Research Track - Senior Program Committee

Harith Alani
Lora Aroyo
Sören Auer
Philipp Cimiano
Oscar Corcho
Philippe Cudré-Mauroux
Claudio Gutierrez
Jeff Heflin
Ian Horrocks
Lalana Kagal
David Karger
Spyros Kotoulas
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Marta Sabou
Uli Sattler
Steffen Staab
Hideaki Takeda

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Peter Haase
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Alfio Gliozzo
Siegfried Handschuh
Jens Lehmann
Axel Polleres
Stuart Wrigley
Gerhard Weikum

KEYNOTE PRABHAKAR RAGHAVAN

Prabhakar Raghavan is a Vice President of Engineering at Google. Raghavan is the co-author of the textbooks *Randomized Algorithms* and *Introduction to Information Retrieval*. He is a member of the National Academy of Engineering; a Fellow of the ACM and IEEE; and was a Consulting Professor of Computer Science at Stanford University. In 2009, he was awarded a Laurea honoris causa from the University of Bologna. From 2003 to 2009, Raghavan was the Editor-in-Chief of *Journal of the ACM*. He holds a Ph.D. from U.C. Berkeley in Electrical Engineering and Computer Science and a Bachelor of Technology from the Indian Institute of Technology, Madras. Prior to joining Google, he worked at IBM, Verity and Yahoo.



Prabhakar Raghavan
Vice President
Engineering
Google, USA

WEB SEARCH - FROM THE NOUN TO THE VERB

This talk examines the evolution of web search experiences over 20 years, and their impact on the underlying architecture. Early web search represented the adaptation of methods from classic Information Retrieval to the Web. Around the turn of this century, the focus shifted to triaging the need behind a query; whether it was Navigational, Informational or Transactional; engines began to customize their experiences depending on the need. The next change arose from the recognition that most queries embodied noun phrases, leading to the construction of knowledge representations from which queries could extract and deliver information regarding the noun in the query. Most recently, three trends represent the next step beyond these “noun engines”: (1) “Queryless engines” have begun surfacing information meeting a user’s need based on the user’s context, without explicit querying; (2) search engines have actively begun assisting the user’s task at hand - the verb underlying the noun query; (3) increasing use of speech recognition is changing the distribution of queries.

Yolanda Gil
Associate Director
Information Sciences Institute,
University of Southern California, USA



SEMANTIC CHALLENGES IN GETTING WORK DONE

In the new millennium, work involves an increasing amount of tasks that are knowledge-rich and collaborative. We are investigating how semantics can help on both fronts. Our focus is scientific work, in particular data analysis, where tremendous potential resides in combining the knowledge and resources of a highly fragmented science community. We capture task knowledge in semantic workflows, and use skeletal plan refinement algorithms to assist users when they specify high-level tasks. But the formulation of workflows is in itself a collaborative activity, a kind of meta-workflow composed of tasks such as finding the data needed or designing a new algorithm to handle the data available. We are investigating “organic data science”, a new approach to collaboration that allows scientists to formulate and resolve scientific tasks through an open framework that facilitates ad-hoc participation. With a design based on social computing principles, our approach makes scientific processes transparent and incorporates semantic representations of tasks and their properties. The semantic challenges involved in this work are numerous and have great potential to transform the Web to help us do work in more productive and unanticipated ways.

Dr. **Yolanda Gil** is Director of Knowledge Technologies and Associate Division Director at the Information Sciences Institute of the University of Southern California, and Research Professor in the Computer Science Department. She received her M.Sc and Ph. D. degrees in Computer Science from Carnegie Mellon University. Dr. Gil leads a group that conducts research on various aspects of Interactive Knowledge Capture. Her research interests include intelligent user interfaces, knowledge-rich problem solving, and the semantic web. An area of recent interest is collaborative large-scale data analysis through semantic workflows. She initiated and chaired the W3C Provenance Group that led to a community standard in this area. Dr. Gil has served on the Advisory Committee of the Computer Science and Engineering Directorate of the National Science Foundation. She is Chair of ACM SIGAI, the Association for Computing Machinery's Special Interest Group on Artificial Intelligence. She was elected Fellow of the American Association of Artificial Intelligence (AAAI) in 2012.

KEYNOTE PAOLO TRAVERSO

Paolo Traverso is the Director of the Center for Information Technology - IRST at FBK since 2007. The Center counts about 200 people working on software and services, embedded systems, content and semantics, perception and interaction. He was also CEO of Trento RISE (the Trento Research, Innovation, and Education System), the association between FBK and the University of Trento, which is part of the European Institution of Innovation and Technology (EIT) in ICT, the EIT ICT Labs. Paolo joined IRST after working in the advanced technology groups of companies for management information consulting in Chicago, London, and Milan, where he led projects for the development of safety critical systems, data and knowledge management, and service oriented applications. He contributed to research in automated planning and service oriented computing. He was Program Chair of the International Conference on Automated Planning and Scheduling (ICAPS), General and Program Chair of the International Conference on Service-Oriented Computing (ICSOC), and Program Chair of the Extended Semantic Web Conference (ESWC). His recent research interests are in the monitoring, adaptation, evolution of service oriented applications, and in the development of new-generation services delivery platforms for improving individual and societal quality of life.



Paolo Traverso
Director
Center for IT
Fondazione Bruno Kessler, Italy

“TO BE OR TO DO?": THE SEMANTICS FOR SMART CITIES AND COMMUNITIES

The major challenge for so-called smart cities and communities is to provide people with value added services that improve their quality of life. Massive individual and territorial data sets – (open) public and private data, as well as their semantics which allows us to transform data into knowledge about the city and the community – are key enablers to the development of such solutions.

Something more, however, is needed. A “smart” community needs “to do things” in a city, and the people need to act within their own community. For instance, not only do we need to know where we can find a parking spot, which cultural event is happening tonight, or when the next bus will arrive, but we also need to actually pay for parking our car, buy a bus ticket, or reserve a seat in the theater. All these activities (paying, booking, buying, etc.) need semantics in the same way as data does, and such a semantics should describe all the steps needed to perform such activities.

Moreover, such a semantics should allow us to define and deploy solutions that are general and abstract enough to be “portable” across the details of the different ways in

which activities can be implemented, e.g., by different providers, or for different customers, or for different cities. At the same time, in order to actually “do things”, we need a semantics that links general and abstract activities to the possibly different and specific ICT systems that implement them.

In my talk, I will present some of the main problems for realizing the concept of smart city and community, and the need for semantics for both understanding data and “doing things”. I will discuss some alternative approaches, some lessons learned from applications we have been working with in this field, and the still many related open research challenges.

KEYNOTE SIR NIGEL SHADBOLT

Professor **Sir Nigel Shadbolt** is Chairman and Co-Founder of the Open Data Institute. He is also Professor of Artificial Intelligence and Head of the Web and Internet Science Group, Electronics and Computer Science, University of Southampton. With over 400 publications he has researched on topics ranging from cognitive psychology to computational neuroscience, Artificial Intelligence to the Semantic Web. He was one of the originators of the interdisciplinary field of Web Science and is a Director of the Web Science Trust which seeks to advance our understanding of the Web and promote the Web's positive impact on society. He has recently been awarded £6M funding from the Engineering and Physical Sciences Research Council (EPSRC) to lead a research project on The Study and Practice of Social Machines (SOCIAM). In 2009 the Prime Minister appointed him and Sir Tim Berners-Lee as Information Advisors to transform access to Public Sector Information. This work led to the highly acclaimed data.gov.uk site that now provides a portal to over 9000 datasets. In May 2010 he was asked by the UK Coalition Government to join the Public Sector Transparency Board – this oversees Open Data releases across the public sector. In April 2011 he became Chair of the UK Government's midata program – whose goal is to empower consumers by releasing their data back to them. In November 2011 he was awarded £10M by the UK's Technology Strategy Board to set up the Open Data Institute with Sir Tim Berners-Lee.



Sir Nigel Shadbolt

Professor of Artificial Intelligence,
The University of Southampton, UK
and Chairman and Co-Founder
Open Data Institute, UK
Industry Track speaker

THE SEMANTIC WEB IN AN AGE OF OPEN DATA

The last five years have seen increasing amounts of open data being published on the Web. In particular, governments have made data available across a wide range of sectors: spending, crime and justice, education, health, transport, geospatial, environmental and much more. The data has been published in a variety of formats and has been reused with varying degrees of success. Commercial organisations have begun to exploit this resource and in some cases elected to release their own open data. Only a relatively small amount of the data published has been linked data. However, the methods and techniques of the semantic web could significantly enhance the value and utility of open data. What are the obstacles and challenges that prevent the routine publication of these resources as semantically enriched open data? What can be done to improve the situation? Where are the examples of the successful publication and exploitation of semantically enriched content? What lessons should we draw for the future?

Sunday, October

19

Organizers:

Payam Barnaghi
University of Surrey, UK

Jan Holler
Ericsson, Sweden

Biplav Srivastava
IBM Research, India

John Davies
BT, UK

John Breslin
National University of Ireland,
Galway, Ireland

Tope Omitola
University of Southampton, UK

<http://blog.soton.ac.uk/s4sc/>

Room: Sala 300B
9.00-17.30

Description

The world's population is rapidly urbanizing. By 2005, the world's population had increased to 6.5 billion, with about 50% living in cities. By 2025, the world's population is expected to exceed 9 billion with roughly 75% expected living in cities. This rapid urbanization puts tremendous pressure on traditional urban infrastructures, and requires new approaches that will transform modern cities to comfortable, economically successful, and environmentally responsible habitats. We are also seeing a rapid rise in the connection and usage of billions of smart devices to the Internet, and witnessing the expansion of the Web into more areas of our personal lives. These trends make possible a new generation of smart city applications and services. This workshop will explore the interfaces between the Web, the Web of Data, and the Smart City environment. It will further explore how the Web, and the intelligences built on top of, and around the Web, can make the notion of the Smart Connected City possible and realizable.

Invited Talks:

Mathieu D'Aquin
Open University, UK

Usman Haque,
Thingful.net and Umbrellium

Papers

1. **Blending Building Information with Smart City Data.** Amin Anjomshoaa
2. **A Linked Data Lifecycle for Smart Cities in Spain.** Almudena Gonzalez, Boris Villazon-Terrazas and Jose Manuel Gomez
3. **Converging on Semantics to Ensure Local Government Data Reuse.** Laurens De Vocht, Mathias Van Compernelle, Anastasia Dimou, Pieter Colpaert, Ruben Verborgh, Erik Mannens, Peter Mechant and Rik Van de Walle
4. **Towards a Semantic City Service Ecosystem.** Irene Celino and Alessio Carenini

5. **Dealing with Diversity in a Smart-City Databub.** Mathieu d'Aquin, Alessandro Adamou, Enrico Daga, Shuangyan Liu, Keerthi Thomas and Enrico Motta
6. **What Is Good for One City May Not Be Good for Another One: Evaluating Generalization for Tweet Classification Based on Semantic Abstraction.** Axel Schulz and Frederik Janssen
7. **A Case Study of Active, Continuous and Predictive Social Media Analytics for Smart City.** Marco Balduini, Stefano Bocconi, Alessandro Bozzon, Emanuele Della Valle, Yi Huang, Jasper Oosterman, Themis Palpanas and Mikalai Tsytsarau
8. **Semantic Discovery and Integration of Urban Data Streams.** Feng Gao, Muhammad Intizar Ali and Alessandra Mileo
9. **Trusted Tiny Things: Making Devices in Smart Cities More Transparent.** Stanislav Beran, Edoardo Pignotti and Peter Edwards

Organizers:**Paulo Rupino da Cunha**

University of Coimbra, Portugal

Ngoc Thanh NguyenWroclaw University of Technology,
Poland**Omar Boucelma**LSIS, Aix-Marseille University,
France**Bogdan Cautis**

University of Paris-Sud, France

Yannis Velegarakis

University of Trento, Italy

<http://sdsd-at-iswc2014.ipn.pt/>**Room: Sala Stampa B****9.00-12.40****Description**

The ease with which users can publish content nowadays has made the Web the world's largest database. Simplicity also made keyword-based search the de-facto standard for discovering information. Existing search engines rely on indexes of the content to return the documents that best match the user's keywords, but this generally leaves out the structure of the data, its semantic dimension, as well as the social aspects to which it may relate. To exploit the full potential of the Web, structured and rich data need to receive the same search and retrieve capabilities as the text data from Web documents. However, to tackle this problem of multifaceted nature, contributions from many different disciplines are required.

Papers

1. **Discovering the Topics of a Data Source: a Statistical Approach.** Sonia Bergamaschi, Davide Ferrari, Francesco Guerra and Giovanni Simonin
2. **Web Experience Enhancer Based on a Fast Hierarchical Document Clustering Approach.** Alexandru Ionut Dospinescu, Florin Pop, Valentin Cristea
3. **Toward Selectivity Based Keyword Extraction for Croatian News.** Slobodan Beliga, Ana Mestrovic, Sanda Martincic-Ipsic
4. **Toward Social, Structured and Semantic Search.** R. Bonaque, B. Cautis, F. Goasdoué and I. Manolescu
5. **Improving Open Information Extraction using Domain Knowledge.** Cheikh Kacfeh Emani, Catarina Ferreira Da Silva, Bruno Fies and Parisa Ghodous
6. **Designing A General Deep Web Harvester by Harvestability Factor.** Mohamamdreza Khelghati, Maurice van Keulen, Djoerd Hiemstra

<http://event.cwi.nl/terracognita2014/>
Room: Sala Stampa B
14.00-17.30

Description

The wide availability of technologies such as GPS, map services and social networks, has resulted in the proliferation of geospatial data on the Web. Similarly, the amount of geospatial data extracted from the Web and published as Linked Data is increasing. Together with the dissemination of Web-enabled mobile devices these continually growing data have given rise to a number of innovative services and applications. With the location of users being made available widely, new issues such as those pertaining to security and privacy arise. Emergency response, context sensitive user applications, and complex GIS tasks all lend themselves toward solutions that combine both the Geospatial Web and the Semantic Web. The workshop will bring together researchers and practitioners from various disciplines, as well as interested parties from industry and government, to advance the frontiers of this emerging research area. Bringing together Semantic Web and geospatial researchers helps encourage the use of semantics in geospatial applications and the use of spatial elements in semantic research and applications.

Demos:

1. **SHAX: The Semantical Historical Archive eXplorer.** Shen Gao and Marc Novel
2. **Retrieving Wikipedia Pages of Topologically Related Administrative Divisions via Linked Data.** Rolf Gruetter and Lukas Wotruba

Note: The order of paper presentations and demos may be subject to a short-term change.

Organizers:

Kostis Kyzirakos
Centrum Wiskunde and
Informatica (CWI), Amsterdam,
The Netherlands

Rolf Gruetter

Swiss Federal Research Institute
WSL, Birmensdorf, Switzerland

Dave Kolas

Raytheon BBN Technologies,
Columbia, MD, USA

Matthew Perry

Oracle Corp., Nashua, NH, USA

Papers

1. **Publishing Georeference Data on the Web: Opportunities and Challenges for IGN-France.** Ghislain Auguste Atemezang, Nathalie Abadie, Raphaël Troncy and Bénédicte Bucher
2. **Translating Maps and Coordinates from the Great War.** Robert Warren and David Evans
3. **GeoTriples: a Tool for Publishing Geospatial Data as RDF Graphs Using R2RML Mappings.** Kostis Kyzirakos, Ioannis Vlachopoulos, Dimitrios Savva, Stefan Mane-gold and Manolis Koubarakis

Organizers:

Victor de Boer
VU University Amsterdam,
The Netherlands

Aldo Gangemi
Université Paris 13 - CNRS -
Sorbonne Cité, France

Krzysztof Janowicz
University of California,
Santa Barbara, USA

Agnieszka Ławrynowicz
Poznań University of Technology,
Poland

<http://ontologydesignpatterns.org/wiki/WOP:2014>

Room: Sala 1000A • 9.00-17.30

Description

This workshop addresses the topic of ontology and semantic web patterns as best practices, related to the ontologydesignpatterns.org initiative. As interest in the Semantic Web increases and technologies for realizing the Semantic Web become more mature, the need for high-quality and reusable Semantic Web ontologies increases as well. To address the quality and reusability issues, different types of Ontology Design Patterns (ODPs) have emerged, and methods for devising or discovering new ones from heterogeneous knowledge sources are needed. The aim of this workshop is twofold: 1) providing an arena for proposing and discussing good practices, patterns, pattern-based ontologies, systems etc., and 2) broadening the pattern community that is developing its own “language” for discussing and describing relevant problems and their solutions.

Invited Talks:

Valentina Presutti
National Research Council (CNR)
Rome, Italy

**Fueling the Future with
Semantic Web Patterns**

Papers

1. **A Pattern-based Ontology for Describing Publishing Workflows.** Aldo Gangemi, Silvio Peroni, David Shotton and Fabio Vitali (Research paper)
2. **Building Ontologies from Textual Resources: A Pattern-based Improvement Using Deep Linguistic Information.** Sami Ghadfi, Nicolas Béchet and Giuseppe Berio (Research paper)
3. **Towards the Reuse of Standardized Theasauri into Ontologie.** Elena Cardillo, Antonietta Folino, Roberto Trunfio and Roberto Guarasci (Research paper)
4. **Digging Ontology Correspondence Antipatterns.** Anselmo Guedes, Fernanda Araujo Baiao and Kate Revoredo (Research paper)
5. **An Ontology Design Pattern for Cooking Recipes - Classroom Created.** Monica Sam,

Adila A. Krisnadhi, Cong Wang, John Gallagher and Pascal Hitzler (Research Paper with Pattern)

6. **Ontology Patterns for Clinical Information Modelling.** Catalina Martínez-Costa, Daniel Karlsson and Stefan Schulz (Research paper with pattern)
7. **An Ontology Design Pattern for Material Transformation.** Charles Vardeman, Adila A. Krisnadhi, Michelle Cheatham, Krzysztof Janowicz, Holly Ferguson, Pascal Hitzler, Aimee Buccellato, Krishnaprasad Thirunaryan, Gary Berg-Cross and Torsten Hahmann (Pattern Paper)
8. **An Ontology Design Pattern for Activity Reasoning.** Amin Abdalla, Yingjie Hu, David Carral, Naicong Li and Krzysztof Janowicz (Pattern Paper)

Organizers:

Jun Zhao

Lancaster University, UK

Marieke van Erp

VU University Amsterdam,
The Netherlands

Carsten Keßler

Hunter College, City University
of New York, USA

Tomi Kauppinen

University of Bremen, Germany
and Aalto University School
of Science, Finland

Jacco van Ossenbruggen

CWI, The Netherlands

Willem Robert van Hage

SynerScope B.V., The Netherlands

<http://linkedscience.org/events/lisc2014/>

Room: Sala Meeting

9.00-17.30

Description

Although publications, methods and datasets are often related, due to avalanche of data it remains extremely hard to correlate, reuse and leverage scientific data. Semantic Web technologies provide promising means for publishing, sharing, and interlinking data to facilitate data reuse and the necessary correlation, integration, and synthesis of data across levels of theory, techniques and disciplines. However, even when these data become discoverable and accessible, significant challenges remain in making intelligent understanding of these data and scientific discoveries that we anticipated. For this the theme for LISC2014 is "Making Sense out of Data Through Linked Science". Here we focus on new ways of discovering interesting patterns from scientific data, which could lead to research validation or identification of new hypotheses and acceleration of the scientific research cycle.

Invited Talks:

Harith Alani,

Open University, UK

**Social Media Analytics
with a Pinch of Semantics**

Papers

1. **Semantic Lenses to bring Digital and Semantic Publishing Together.** Angelo Di Iorio, Silvio Peroni, Fabio Vitali and Jacopo Zingoni
2. **EPUB3 for Integrated and Customizable Representation of a Scientific Publication and its Associated Resources.** Hajar Ghaem
3. **Competency Driven Linksets of Convenience.** Alasdair J. G. Gray, Simon Jupp and James Malone
4. **Clustering Citation Distributions for Semantic**

Sigarchian, Ben De Meester, Tom De Nies, Ruben Verborgh, Wesley De Neve, Erik Mannens and Rik Van de Walle

5. **Competency Driven Linksets of Convenience.** Alasdair J. G. Gray, Simon Jupp and James Malone

4. **Clustering Citation Distributions for Semantic**

tic Categorization and Citation Prediction.

Francesco Osborne, Silvio Peroni and Enrico Motta

5. **SMART Protocols: SeMAnTic RepresenTation for Experimental Protocols.** Olga Giraldo, Alexander Garcia and Oscar Corcho
6. **Connecting Science Data Using Semantics and Information Extraction.** Evan Patton and Deborah McGuinness
7. **Using the Micropublications Ontology and the Open Annotation Data Model to Represent Evidence within a Drug-Drug Interaction Knowledge-base.** Jodi Schneider, Paolo Ciccarese, Tim Clark and Richard D. Boyce
8. **LinkedPPI: Enabling Intuitive, Integrative Protein-Protein Interaction Discovery.** Laleh Kazemzadeh, Maulik Kamdar, Oya Beyan, Stefan Decker and Frank Barry

Organizers:**Key-Sun Choi**

KAIST, South Korea

Jin-Dong Kim

DBCLS, ROIS, Japan

Axel-Cyrille Ngonga NgomoAKSW, University of Leipzig,
Germany<http://www.nliwod.org/>**Room: Sala Stampa A****9.00-12.40****Invited Talks:****André Freitas**

DERI, Galway, Ireland

**Talking to Your Data Natural
Language Interfaces
for the Schemaless World****Description**

While the amount of Linked Open Data (LOD) increases rapidly, it is still used mostly by Semantic Web experts. There are two main obstacles to making the billions of RDF triples already available accessible for common Web users: (1) the need to learn the query language SPARQL, and (2) the need to know the schemas underlying the datasets. Approaches to ease the access to the Web of Data include graphical query interfaces, agent based systems, and natural language interfaces. Amongst them, natural language interfaces are receiving an increasing interest due to their high expressive power and low cost for educational purposes. Recent progresses in speech recognition technologies (e.g., Siri and Google Voice) also demonstrate the usefulness of a natural language interface. The goal of this workshop is to bring together experts on the use of natural language interfaces (NLI) for accessing the Web of Data.

Papers

1. **SESSA - Keyword Based Entity Search through Coloured Spreading Activation.** Denis Lukovnikov and Axel-Cyrille Ngonga Ngomo
2. **Natural Language Question Analysis for Querying Biomedical Linked Data.** Thierry Hamon, Natalia Grabar and Fleur Mougjin
3. **Quelo Natural Language Interface: Generating Queries and Answer Descriptions.** Enrico Franconi, Claire Gardent, Isabel Juaréz-Castro and Laura Perez-Beltrachini
4. **Triple Pattern Variation Operations for Flexible Graph Search.** Jin-Dong Kim and Kevin Bretonnel Cohen
5. **Multilingual Retrieval Interface for Structured Data on the Web.** Dana Dannells, Ramona Enache and Mariana Damova

6. **A Non-Morphological Entity Boundary Detection Approach for Korean Text.** Youngsik Kim, Younggyun Hahm, Dosam Hwang and Key-Sun Choi
7. **On the Semantic Mapping of Schema-agnostic Queries: A Preliminary Study.** Andre Freitas, João Carlos Silva and Edward Curry

Organizers:

Alasdair J. G. Gray
Heriot-Watt University, UK
Harry Halpin
W3C / IRI / MIT, USA
Fiona McNeill
Heriot-Watt University, UK

<http://www.macs.hw.ac.uk/~fm206/cim14/>
Room: Sala Stampa A
14.00-17.30

Description

Data linkage and ontology matching have traditionally focused on creating a single link between items in a dataset, terminology or ontology. This one size mapping does not fit the myriad of use cases to which the data will be put. In order to make intelligent use of these mappings, users of the matches want to understand the justification of the mapping to interpret the meaning of the linking. This issue arises in many areas including healthcare, life sciences and disaster management. This workshop will focus on the creation of mappings, modelling of justifications, and developing explanations. It will also address developing intuitive displays to present the consequences of these mappings to the user.

Papers

1. **A Quest for Lightweight Methods to Dynamically Linking Micro-posts to Entities of a City-Scale Event.** Marco Balduini, Emanuele Della Valle, Gioele Nasi and Gloria Re Calegari
2. **A Justification-based Semantic Framework for Representing, Evaluating and Utilizing Terminology Mappings.** Sajjad Husain, Hong Sun, Gokce B. Laleci Erturkmen, Mustafa Yuksel, Charles Mead, Alasdair J. G. Gray and Kerstin Forsberg
3. **A Dialectical Approach to Selectively Re-using Ontological Correspondences.** Terry Payne and Valentina Tamma
4. **Learning Declarative Models from Ontology Alignment Provenance Data.** Mateus Ferreira Silva, Fernanda Araujo Baiao and Kate Revoreda
5. **Roles and Relationships as Context-Aware Properties on the Semantic Web.** Amy Guy

<http://semstats2014.wordpress.com/>
Room: Sala 300A
9.00-12.40

Description

The goal of the workshop is to strengthen the relationship between the Semantic Web and statistical communities, to provide better access to the data held by statistical offices. It will focus on ways in which statisticians can use Semantic Web technologies and standards in order to formalize, publish, document and link their data and metadata. It will also discuss how to apply statistical methods to linked data, and how to develop new methods and tools for this purpose.

Papers

1. **Early Analysis and Debugging of Linked Open Data Cubes.** Enrico Daga, Mathieu D'Aquin, Aldo Gangemi and Enrico Motta
2. **Representing Verifiable Statistical Index Computations as Linked Data.** Jose Emilio Labra Gayo, Hania Farhan, Juan Castro Fernández and Jose María Alvarez Rodríguez
3. **Containment and Complementarity Relationships in Multidimensional Linked Open Data.** Marios Meimaris and George Papastefanatos
4. **Publishing the 15th Italian Population and Housing Census as Linked Open Data.** Raffaella Aracri, Stefano De Francisci, Andrea Pagano, Monica Scannapieco, Laura Tosco and Luca Valentino
5. **Publishing Official Classifications in Linked Open Data.** Giorgia Lodi, Antonio Maccioni, Monica Scannapieco, Mauro Scanu and Laura Tosco

Organizers:

Sarven Capadislı
Bern University of Applied
Sciences, Switzerland and
University of Bonn, Germany

Franck Cotton

INSEE, France

Armin Haller

CSIRO, Australia

Alistair Hamilton

ABS, Australia

Monica Scannapieco

Istat, Italy

Raphaël Troncy

EURECOM, France

Invited Talks:

Emanuele Baldacci

Istat, Italy

**Smart Statistics. Data Analytics
Services Based on Open Data
Platforms**

6. **Creating and Utilizing Linked Open Statistical Data for the Development of Advanced Analytics Services.** Evangelos Kalampokis, Areti Karamanou, Andriy Nikolov, Peter Haase, Richard Cyganiak, Bill Roberts, Paul Hermans, Efthimios Tambouris and Konstantinos Tarabanis
7. **From Flat Lists to Taxonomies: Bottom-up Concept Scheme Generation in Linked Statistical Data.** Albert Meroño-Peñuela, Ashkan Ashkpour and Christophe Guéret

Note: the workshop also includes four posters and a data challenge with two tracks, the Census Data Track, with data from France, Italy, and Ireland, and the Open Track, where any type of statistical data may be used.

<http://www.swcs-workshop.org/>
Room: Sala 300A
14.00-17.30

Organizers:

Pascal Molli
University of Nantes, France,
(Chair)

John Breslin
National University of Ireland
Galway, Ireland

Maria-Esther Vidal
Universidad Simón Bolívar,
Venezuela

Description

Collaboration between data producers and consumers is a key challenge for facilitating the evolution of the Linking Open Data (LOD) cloud into a participative and updatable LOD cloud. Semantic Web Collaborative Spaces support the collaboration among Open Data producers and consumers to publish and maintain Linked Data, as well as, to improve quality. These collaborative spaces include social semantic frameworks such as crowdsourcing tools, semantic wikis, semantic social networks and semantic microblogs. Collaborative spaces have been developed for different domains, e.g., Health care, Life Sciences, and e-Government. This workshop focuses on collaborative data management, models to represent collaborative knowledge and reasoning, tools to interact with SWCS, and applications. We have set up an excited program; approaches to solve ontology mapping, activity and content prediction, and query explanation will be presented, and foster enriched discussions and debates.

Papers

1. **Okkam Synopsis: A Community Driven Hub for Sharing and Reusing Mappings Across Vocabularies.** Stefano Bortoli, Paolo Bouquet, and Barbara Bazzanella
2. **Collaborative Semantic Tables.** Anna Goy, Diego Magro, Giovanna Petrone and Marino Segnan
3. **Characterizing and Predicting Activity in Semantic MediaWiki Communities.** Simon Walk and Markus Strohmaier
4. **User Profile Modeling in Online Communities.** Miriam Fernandez, Harith Alani, Arno Scharl and Kalina Bontcheva
5. **SPARQL Query Result Explanation for Linked**

Data. Rakebul Hasan, Kemele M. Endris and Fabien Gandon

6. **Generating Semantic Media Wiki Content from Domain Ontologies.** Dominik Filipiak and Agnieszka Lawrynowicz

<http://c4i.gmu.edu/ursw/2014>
Room: Sala Presidenza
9.00-17.30 (joint with METHOD 2014)

Description

The International Workshop on Uncertainty Reasoning for the Semantic Web provides an opportunity for collaboration and cross-fertilization between the uncertainty reasoning community and the Semantic Web community. This year URSW joins with the Workshop on Methods for Establishing Trust of (Open) Data which aims to bring together researchers working on the problem of trust and quality assessment of (open) data, and all components that contribute to this goal.

Papers

1. **A Probabilistic OWL Reasoner for Intelligent Environments.** David Ausín, Diego López-De-Ípiña and Federico Castanedo
2. **Learning to Propagate Knowledge in Web Ontologies.** Pasquale Minervini, Claudia D'Amato, Nicola Fanizzi, Volker Tresp
3. **Automated Evaluation of Crowdsourced Annotations in the Cultural Heritage Domain.** Archana Nottamkandath, Jasper Oosterman, Davide Ceolin, Wan Fokkink
4. **Probabilistic Relational Reasoning in Semantic Robot Navigation.** Walter Toro, Fabio Cozman, Kate Revoreda, Anna Helena Reali Costa
5. **Towards a Distributional Semantic Web Stack.** André Freitas, Edward Curry, Siegfried Handschuh

Organizers:

Fernando Bobillo
University of Zaragoza, Spain
Rommel Carvalho
Universidade de Brasilia, Brazil
Paulo C. G. da Costa
George Mason University, USA
Davide Ceolin
Vrije Universiteit Amsterdam,
The Netherlands
Claudia d'Amato
University of Bari, Italy
Nicola Fanizzi
University of Bari, Italy
Kathryn B. Laskey
George Mason University, USA
Kenneth J. Laskey
MITRE Corporation, USA
Thomas Lukasiewicz
University of Oxford, UK
Trevor Martin
University of Bristol, UK
Matthias Nickles
National University of Ireland,
Ireland
Michael Pool
Goldman Sachs, USA

Invited Talks:

Luciano Serafini
Fondazione Bruno Kessler,
Trento, Italy
**Mixing Logical and Statistical
Reasoning, from Practice
to Theory**

Sunday, October 19: Workshop Methods for Establishing Trust of (Open) Data

Organizers:

Tom De Nies

Ghent University - iMinds -
Multimedia Lab, Belgium

Davide Ceolin

Web & Media Group, VU
Amsterdam, The Netherlands

Paul Groth

Web & Media Group, VU
Amsterdam, The Netherlands

Olaf Hartig

Cheriton School of Computer
Science, University of Waterloo,
Canada

Stephen Marsh,

Faculty of Business and IT, UOIT,
Canada

<http://trustingwebdata.org/method2014>

Room: Sala Presidenza

9.00-17.30 (joint with URSW 2014)

Description

The METHOD workshop aims to bring together researchers from both the Semantic Web and the Trust Management community working on the problem of trust and quality assessment of (open) data, and all components that contribute to this goal. It will be a venue for presenting and discussing novel research ideas as well as technical applications, with the goal of gaining new insights towards solutions for this complex problem. There are many places where activists and political stakeholders discuss trust and Open Data, but we found that our research community lacks a platform for researchers and engineers to exchange views using a more technical perspective. This year, METHOD merges with the 10th International Workshop on Uncertainty Reasoning for the Semantic Web (URSW).

Papers

1. Hashing of RDF Graphs and a Solution to the Blank Node Problem. Edzard Hoefig and Ina Schieferdecker
2. Rating, Recognizing and Rewarding Metadata Integration and Sharing on the Semantic Web. Francisco Couto
3. Towards the Definition of an Ontology for Trust in (Web). Davide Ceolin, Archana Nottamkandath, Wan Fokkink and Valentina Maccatrozzo

Sunday, October 19: Tutorial

Large Scale Reasoning Over Semantic Data

<http://homepages.abdn.ac.uk/jeff.z.pan/pages/research-ttl-iswc2014.shtml>
Room: Sala Belvedere • 9.00-17.30

Organizers:

Jeff Z. Pan
University of Aberdeen, UK
Guilin Qi
Southeast University, China
Raghava Mutharaj
Wright State University, USA
Ilias Tachmazidis
University of Huddersfield, UK

Description

The tutorial aims to provide an overview of the approaches used for large scale reasoning over semantic data, the systems developed as well as the lessons learned while developing them. We will discuss some applications which require scalable reasoning solutions. Questions such as what makes distributed/parallel reasoning hard would also be covered during the tutorial. Directions for future research work would be discussed.

Program

Morning

- 10 min. Introduction *Jeff Z. Pan*
- 35 min. Overview of Background Knowledge *All*
- 45 min. Scalable OWL 2 DL Reasoning Based on Approximation and Divide-and-Conquer Approaches *Jeff Z. Pan*
- 45 min. Scalable RDFS Reasoning Using MapReduce *Guilin Qi*
- 45 min. Distributed Reasoning in OWL 2 EL *Raghava Mutharaj*

Afternoon

- 45 min. Large Scale Non-Monotonic Reasoning *Ilias Tachmazidis*
- 45 min. Lessons Learned *All*
- 60 min. Applications *All*

Organizers:**Marco Balduini**

Politecnico di Milano, Italy

Jean-Paul CalbimonteÉcole Polytechnique Fédérale
de Lausanne, Switzerland**Oscar Corcho**Universidad Politécnica
de Madrid, Spain**Daniele Dell'Aglio**

Politecnico di Milano, Italy

Emanuele Della Valle

Politecnico di Milano, Italy

<http://streamreasoning.org/events/sr4ld2014>**Room: Sala 100A****9.00-17.30****Description**

The goal of the Stream Reasoning for Linked Data tutorial is twofold: to (1) introduce scalable reasoning and querying techniques to SW researchers as powerful tool to make use of linked data and large-scale ontologies, and to (2) present interesting research problems for SW that arise in reasoning with highly dynamic data streams. The tutorial consists of five parts. It will begin with an introduction of linked data streams, as well as reasoning using the Semantic Web standard ontology language OWL 2. The second part will introduce semantic processing of data streams explained using C-SPARQL, a continuous extension of SPARQL for querying RDF streams and RDF graphs. The third part will provide an overview of ontology-based access to data streams through query rewriting to Stream Processing Engines and using stream-to-ontology mappings. The fourth part of the tutorial is a hands-on session on tools and systems related to the previous parts. The fifth part of the tutorial will present other stream reasoning techniques for RDFS and OWL2-RL. The last part will wrap up the tutorial and present an overview of the open challenges.

Program

FIRST PART: 9.00-10.30

- 30 min. Introduction to Stream Reasoning
 - 60 min. RSP Extensions for RDF and SPARQL
-

10.30-11.00 COFFEE BREAK

SECOND PART: 11.00-12.30

- 30 min. Stream Reasoning: Naive Approaches
 - 30 min. C-SPARQL: a Continuous Extension of SPARQL with Naive Stream Reasoning Support
 - 30 min. SPARQLstream: Ontology-based Streaming Access
-

12.40-14.00 LUNCH BREAK

THIRD PART: 14.00-15.30

- 90 min. Hands on Session
-

15.30-16.00 COFFEE BREAK

FOURTH PART: 16.00-17.30

- 30 min. SIMaRS: Incremental Materialization for RDF Streams
- 60 min. Other Stream Reasoning Approaches
Wrap-up and Conclusions

Organizers:**Jerome Euzenat**INRIA and Univ. Grenoble-Alpes,
France**Pavel Shvaiko**

Informatica Trentina SpA, Italy

<http://tutorial.ontologymatching.org/>**Room: Sala 100B****9.00-12.40****Description**

Ontology matching is the task of finding relationships between different ontologies. In semantic web practice it is very important for mediating queries across data sources expressed in different ontologies or for interlinking open data, for instance. Ontology matching has benefited from years of very active research. The goal of this tutorial is to present ontology matching in an inclusive framework and to show by examples how this is instantiated in tools for matching and manipulating alignments between ontologies. It also aims at presenting extensions of this framework towards more intricate questions (scalability, reasoning, involving other resources and people): these will also be discussed in a general way and illustrated on practical examples. This tutorial is targeted at people needing to involve ontology matching in their works, at practitioners who want to concretely learn how to start with ontology matching, and at students who are starting research involving ontology matching.

Program

Morning

- 45 min.
Introduction to Ontology Matching
- 45 min.
Practical and Methodological Issues
- 45 min.
Advanced Topics on Ontology Matching
- 45 min.
Advanced Technology in Practice

Sunday, October 19: Tutorial

Instance Matching Benchmarks for Linked Data

<http://www.ics.forth.gr/isl/Benchmarks>
Tutorial/
Room: Sala 100B • 14.00-17.30

Description

With the continuously increasing number of datasets published in the Web of Data and forming part of the Linked Open Data Cloud, it becomes more and more essential to identify resources that correspond to the same real world object in order to interlink web resources and set the basis for large-scale data integration. This requirement becomes apparent in a multitude of domains ranging from science (marine research, biology, astronomy, pharmacology) to semantic publishing and cultural domains. In this context, instance matching (also referred to as record linkage, duplicate detection entity resolution, and object identification in the context of databases) is of crucial importance. It is, though, essential at this point to develop, along with instance and entity matching systems, benchmarks to determine the weak and strong points of those systems, as well as their overall quality in order to support users in deciding the system to use for their needs. Hence, well defined, and good quality benchmarks are important for comparing the performance of the developed instance matching systems. In this tutorial we aim at:

- discussing the state-of-the-art instance matching benchmarks;
- presenting the benchmark design principles;
- providing an analysis of the performance results of instance matching systems for the presented benchmarks;
- presenting the research directions that should be exploited for the creation of novel benchmarks to answer the needs of the Linked Data paradigm.

Organizers:

Evangelia Daskalaki
Institute of Computer
Science-FORTH, Greece
Irini Fundulaki
Institute of Computer
Science-FORTH, Greece
Melanie Herschel
University of Paris South, France
Janina Saveta
University of Crete, Greece

Program

Afternoon

- 30 min.
Introduction
- 30 min.
Benchmark Principles,
Dimensions of Instance
Matching Benchmarks
- 30 min.
Presentation of Benchmarks
and Evaluation Results - Part I
- 75 min.
Presentation of Benchmarks
and Evaluation Results - Part II
- 15 min.
Conclusions, Directions
and Discussions

Sunday, October 19: Developers Workshop

Developing the Semantic Web, One Line at a Time

Organizers:

Ruben Verborgh
Ghent University - iMinds,
Belgium

Erik Mannens
Ghent University - iMinds,
Belgium

<http://iswc2014.semdev.org/>

Room: Sala 1000B
9.00-17.30

Program

The full program of the workshop is available at the address <http://iswc2014.semdev.org/program/>

Description

Like any technology, the Semantic Web crucially depends on its developers. We know that many of you have created SemWeb software, but only few have gotten the opportunity to talk about what is so special about the code they wrote. ISWC2014 finally changes this :-)

We unite SemWeb developers to discuss about topics we passionately care about:

- How to develop applications on top of Linked Data?
- How can browser applications influence the Semantic Web?
- How to create libraries for technologies such as RDF (JSON-LD / Turtle / ...), SPARQL, PROV?
- What about mobile and native applications?
- How to do semantic development for a specific domain?

In other words, this workshop is about how you made things work. It is about implementations, methods, techniques, about how you solved practical problems for Linked Data.

Join and discuss with us

In contrast to the main and demo tracks of ISWC, we do focus on implementation-specific technical concepts. We want to see how you deal with the Semantic Web in JavaScript, Python, Java, C++, Erlang, Perl, Ruby, ... how a library or application was designed, and what the rationale behind your design decisions is.

Monday, October

20

Monday, October 20: Workshop **Linked Learning meets LinkedUp: Learning and Education with the Web of Data**

Organizers:

Stefan Dietze

L3S Research Center, Germany

Mathieu d'Aquin

The Open University, UK

Eelco Herder

L3S Research Center, Germany

Dragan Gašević

Athabasca University and Simon Fraser University, Canada

<http://linkededucation.org/events/lile2014/>

Room: Sala 1000B

9.00-17.30

Description

The emergence of the Web of Data and its gradual adoption in learning or education-related settings has led to the creation of an embryonic "Web of Educational Data" including institutional data from universities, as well as Linked Data about public available educational resources. However, while the very nature of the Linked Data approach offers promising solutions that can potentially transform education and learning, adoption and take-up is still hindered by issues which are both technical as well interdisciplinary. Building on the success of earlier LILE editions, LILE2014 aims at addressing such challenges by providing a forum for researchers and practitioners who make innovative use of Linked Data for educational purposes. In addition, LILE2014 will also host the final presentations of the LinkedUp Challenge's (<http://linkedup-challenge.org>) Vici Competition, an open data competition organised by the LinkedUp project (<http://linkedup-project.eu>) to support innovative applications using Linked Data for learning and education.

Invited Talks:

Wilbert Kraan

CETIS, UK

**Idealism and Pragmatism
in Linked Educational Data**

Papers

Below is the list of LILE research papers (morning session). The afternoon will be dedicated to presentations of the shortlisted candidates from the LinkedUp Vici Challenge (see <http://linkedup-challenge.org>)

1. **Semantic Web Technologies Supporting the BBC Knowledge and Learning Beta Online Pages.** Dong Liu, Eleni Mikroyannidi and Robert Lee
2. **Creating Discoverable Learning Content Using a User-Friendly Authoring Environment.** Ben De Meester, Hajar Ghaem Sigar-

chian, Tom De Nies, Anastasia Dimou, Wesley De Neve, Erik Mannens and Rik Van de Walle

3. **EAGLE - Local Government Learning Platform.** Dietmar Glachs, Violeta Damjanovic, Felix Strohmeier and Sergio Fernández
4. **Combining Gamification, Crowdsourcing and Semantics for Leveraging Linguistic Open Data.** Antonio J. Roa-Valverde
5. **A Combined Method for E- Learning Ontology Population based on NLP and User Activity Analysis.** Dmitry Mouromtsev, Fedor Kozlov, Liubov Kovriguina and Olga Parkhimovich
6. **An Enhanced Approach to Semantic Markup of VLEs Content Based on schema.org.** Abdulaziz Aldaej and Paul Krause

Note: This workshop is sponsored by LinkedUp project
<http://linkedup-project.eu>

Organizers:

Olaf Hartig
University of Waterloo, Canada
Juan Sequeda
University of Texas at Austin,
USA
Aidan Hogan
DCC, Universidad de Chile, Chile

Invited Talks:

Claudio Gutierrez
DCC, Universidad de Chile,
Chile
**Cracks in the Foundations of the
Web of Data**

<http://ribs.csres.utexas.edu/cold2014/>
Room: Sala 300B
9.00-17.30

Description

The quantity of published Linked Data continues to increase. However, applications that consume Linked Data are not yet widespread. Reasons may include a lack of suitable methods for a number of open problems, including the integration of Linked Data from multiple sources, dynamic discovery of available data sources, provenance and information quality assessment, application development environments, and appropriate end user interfaces. Addressing these issues requires well-founded research on concepts that can be applied within systems that consume Linked Data from the Web. Our main objective is to provide a venue for scientific discourse (including systematic analysis and rigorous evaluation) of concepts, approaches and algorithms for consuming Linked Data. Papers must make use of Linked Data principles (such as dereferenceable IRIs) and/or present evaluation over multiple real-world Linked Datasets.

Papers

1. **Towards a Linked-Data based Visualization Wizard.** Ghislain Auguste Atezmezing and Raphaël Troncy
2. **A Relational Learning Approach for Collective Entity Resolution in the Web of Data.** Gustavo De Assis Costa and José Maria Parente de Oliveira
3. **Using Linked Data and Web APIs for Automating the Pre-processing of Medical Images.** Philipp Gemmeke, Maria Maleshkova, Patrick Philipp, Michael Goetz, Christian Weber, Benedikt Kaempgen, Marco Nolden and Klaus Maier-Hein
4. **Checking Licenses Compatibility between**

- Vocabularies and Data.** Guido Governatori, Ho-Pun Lam, Antonino Rotolo, Serena Villata, Ghislain Auguste Atemezing and Fabien Gandon
5. **Resource Planning for SPARQL Query Execution on Data Sharing Platforms.** Stefan Hagedorn, Katja Hose, Kai-Uwe Sattler and Jürgen Umbrich
 6. **Capturing the Currency of DBpedia Descriptions and Get Insight into their Validity.** Anisa Rula, Luca Panziera, Matteo Palmonari and Andrea Maurino
 7. **Walking Linked Data: A Graph Traversal Approach to Explain Clusters.** Iliaria Tididi, Mathieu D'Aquin and Enrico Motta
 8. **A Drag-and-block Approach for Linked Open Data Exploration.** Tuan-Dat Trinh, Ba-Lam Do, Peter Wetz, Amin Anjomshooa, Elmar Kiesling and Amin Tjoa
 9. **How Redundant Is It? An Empirical Analysis on the Linked Data.** Honghan Wu, Boris Villazón-Terrazas, Jeff Z. Pan and Jose Manuel Gomez-Perez

Program at a glance

Sunday, October 19

Room	9.00-10.30	10.30-11.00	11.00-12.40	12.40-14.00	14.00-15.30	15.30-16.00	16.00-17.30	
Sala 300B	Semantics for Smarter Cities		Semantics for Smarter Cities		Semantics for Smarter Cities		Semantics for Smarter Cities	
Sala Stampa B	Surfacing the Deep and the Social Web		Surfacing the Deep and the Social Web		Terra Cognita		Terra Cognita	
Sala 1000A	Ontology and Semantic Web Patterns		Ontology and Semantic Web Patterns		Ontology and Semantic Web Patterns		Ontology and Semantic Web Patterns	
Sala Meeting	Linked Science		Linked Science		Linked Science		Linked Science	
Sala Stampa A	Natural Language Interfaces for Web of Data		Natural Language Interfaces for Web of Data		Context, Interpretation, and Meaning		Context, Interpretation, and Meaning	
Sala 300A	Semantic Statistics		Semantic Statistics		Semantic Web Collaborative Spaces		Semantic Web Collaborative Spaces	
Sala Presidenza	Uncertainty Reasoning for the Semantic Web + Methods for Establishing Trust of Open Data		Uncertainty Reasoning for the Semantic Web + Methods for Establishing Trust of Open Data		Uncertainty Reasoning for the Semantic Web + Methods for Establishing Trust of Open Data		Uncertainty Reasoning for the Semantic Web + Methods for Establishing Trust of Open Data	
Sala Belvedere	Large Scale Reasoning Over Semantic Data		Large Scale Reasoning Over Semantic Data		Large Scale Reasoning Over Semantic Data		Large Scale Reasoning Over Semantic Data	
Sala 100A	Stream Reasoning for Linked Data		Stream Reasoning for Linked Data		Stream Reasoning for Linked Data		Stream Reasoning for Linked Data	
Sala 100B	Ontology Matching		Ontology Matching		Instance Matching Benchmark for Linked Data		Instance Matching Benchmark for Linked Data	
Sala 1000B	Developers Workshop		Developers Workshop		Developers Workshop		Developers Workshop	
		Coffee Break • Room: Palameeting		Lunch • Room: Palameeting		Coffee Break • Room: Palameeting		
								Workshops
								Tutorials

Monday, October 20

Room	9.00-10.30	10.30-11.00	11.00-12.40	12.40-14.00	14.00-15.30	15.30-16.00	16.00-17.30	
Sala 1000B	Linked Learning meets LinkedUp: Learning and Education with the Web of Data		Linked Learning meets LinkedUp: Learning and Education with the Web of Data		Linked Learning meets LinkedUp: Learning and Education with the Web of Data		Linked Learning meets LinkedUp: Learning and Education with the Web of Data	
Sala 300B	Consuming Linked Data		Consuming Linked Data		Consuming Linked Data		Consuming Linked Data	
Sala Meeting	Intelligent Exploration of Semantic Data		Intelligent Exploration of Semantic Data		Intelligent Exploration of Semantic Data		Intelligent Exploration of Semantic Data	
Sala 1000A	Ontology Matching		Ontology Matching		Ontology Matching		Ontology Matching	
Sala 100A	Scalable Semantic Web Knowledge Base Systems		Scalable Semantic Web Knowledge Base Systems		NLP and DBpedia Workshop		NLP and DBpedia Workshop	
Sala Stampa A	Linked Data for Information Extraction		Linked Data for Information Extraction		Privacy Online		Privacy Online	
Sala Stampa B	Ordering and Reasoning		Ordering and Reasoning		Semantic Sensor Networks		Semantic Sensor Networks	
Sala 100B	Semantic Annotation of Social Media		Semantic Annotation of Social Media		Semantic Annotation of Social Media		Semantic Annotation of Social Media	
Sala Belvedere	Building the Multilingual Web of Data		Building the Multilingual Web of Data		Building the Multilingual Web of Data		Building the Multilingual Web of Data	
Sala Presidenza	Apache Marmotta		Apache Marmotta		Re-using Media on the Semantic Web		Re-using Media on the Semantic Web	
Sala 300A	Doctoral Consortium		Doctoral Consortium		Doctoral Consortium		Doctoral Consortium	
		Coffee Break • Room: Palameeting		Lunch • Room: Palameeting		Coffee Break • Room: Palameeting		
								Workshops
								Tutorials

18.30-20.00 Welcome Aperitif • Rocca (Town Centre)

SWSA Meeting (Invitation only)
Room: Sala Belvedere

19.30-23.00

Tuesday, October 21

9.00-9.30	Opening and 10 years award presentation Room: Sala 1000A			Registration Room: Foyer • 8.00-17.00 Exhibits Room: Palameeting • 9.00-21.30
9.30-10.30	Keynote - Prabhakar Raghavan: "Web Search - From The Noun to The Verb" Room: Sala 1000A			
10.30-11.00	Coffee Break Room: Palameeting			
11.00-12.20	Data Integration and Link Discovery in Life Sciences Room: Sala 1000A	Querying Room: Sala 300	NLP & IEs Room: Sala 1000B	
12.20-13.30	Lunch Room: Palameeting	JWS Lunch (Invitation only) Room: Sala 100		
13.30-14.30	Keynote - Yolanda Gil: "Semantic Challenges in Getting Work Done" Room: Sala 1000A			
14.40-16.00	Data Integration and Link Discovery Room: Sala 1000A	Sensors Room: Sala 300	Reasoning Room: Sala 1000B	
16.00-16.20	Coffee Break Room: Palameeting			
16.20-17.50	Minute Madness Room: Sala 1000A			
17.50-18.00	LinkedUp Madness Room: Sala 1000A			
18.30-21.30	Posters and Demos Session Room: Palameeting	EUON Town Hall Room: Sala 1000B		

Wednesday, October 22

9.00-9.15	Announcements and LinkedUp competition Prize announcements Room: Sala 1000A			Registration Room: Foyer • 8.00-17.00 Exhibits Room: Palameeting • 9.00-17.00
9.15-10.15	Industry Track Keynote - Sir Nigel Shadbolt: "The Semantic Web in an Age of Open Data" Room: Sala 1000A			
10.15-11.00	Coffee Break Room: Palameeting			
11.00-12.45	User Interaction and Personalization Room: Sala 1000A	Linked Data and Data Quality Room: Sala 300	Industry Track: Regular Talks Room: Sala 1000B	
12.45-14.20	Lunch Room: Palameeting	Student Mentoring Lunch Room: Sala Stampa		
14.20-15.20	Semantic Web Challenge Room: Sala 1000A	SPARQL Extensions Room: Sala 300	Industry Track: First Pechakucha Session Room: Sala 1000B	
15.20-15.40	Coffee Break Room: Palameeting			
15.40-17.00	Semantic Web Challenge Room: Sala 1000A	Large-scale RDF Processing and Dataset Availability Room: Sala 300	Industry Track: Second Pechakucha Session Room: Sala 1000B	
17.00-18.00	Town Hall Room: Sala 300	Industry Track: Third Pechakucha Session Room: Sala 1000B		
18.00-18.30				
20.00	Banquet Room: Palameeting			

Thursday, October 23

9.00-9.15	Announcements Room: Sala 1000A			Registration Room: Foyer • 8.00-12.00 Exhibits Room: Palameeting • 9.00-14.00
9.15-10.15	Keynote - Paolo Traverso: "To be or to do?: The Semantics for Smart Cities and Communities" Room: Sala 1000A			
10.15-10.45	Coffee Break Room: Palameeting			
10.45-12.25	Ontology Alignment and Modularization Room: Sala 1000A	OBDA and Query Rewriting Room: Sala 300	Lightning Talks Room: Sala 1000B	
12.25-14.00	Lunch Room: Palameeting	ISWC 2015 Lunch (Invitation only) Room: Sala Presidenza		
14.00-15.20	Linked Data Room: Sala 1000A	Mobile Reasoning and SPARQL Updates Room: Sala 300		
15.20-15.40	Coffee Break Room: Palameeting			
15.40-16.40	Social Media Room: Sala 1000A	Semantic Infrastructures and Streams Room: Sala 300		
16.40-17.10	Closing and Prize Announcements Room: Sala 1000A			

Organizers:**Dhaval Thakker**

University of Leeds, UK

Daniel SchwabeCatholic University in Rio
de Janeiro (PUC-Rio), Brazil**Kouji Kozaki**

Osaka University, Japan

Roberto Garcia

Universitat de Lleida, Spain

Chris DijkshoornVU University Amsterdam,
The Netherlands**Riichiro Mizoguchi**Japan Advanced Institute
of Science, Japan<http://iesd14.wordpress.com/>**Room: Sala Meeting****9.00-17.30****Description**

ESD'14 will provide a forum to discuss approaches for exploring semantic data. Semantic data is available widely and semantic data exploration is becoming a key activity in a range of application domains. Several novel interfaces and interaction means for exploration of semantic data are being proposed, for example exploratory search systems, semantic data browsers, ontology/content visualisation environments and semantic wikis. Although on the rise, the current solutions are still maturing and need to take into account human factors to make exploration intuitive or employ necessary computational models to aid the intuitiveness and improve the effectiveness of exploration tasks. Hence, greater benefits can be achieved by bringing together expertise from different communities, including HCI, Semantic Web, and personalisation with the potential application domain demands.

Invited Talks:**Prof. Stefano Ceri**

Politecnico di Milano, Italy

**Intelligent Exploration
of Genomic Data****Papers**

1. **Linked Data Based Exploration: A State of the Art.** Nicolas Marie
2. **Exploration of Semi-Structured Data Sources.** Thiago Nunes and Daniel Schwabe
3. **Nudging to Expand User's Domain Knowledge while Exploring Linked Data.** Marwan Al-Tawil, Dhavalkumar Thakker and Vania Dimitrova
4. **A Visual Exploration Workflow as Enabler for the Exploitation of Linked Open Data.** Laurens De Vocht, Anastasia Dimou, Jonas Breuer, Mathias Van Compernelle, Ruben Verborgh, Erik Mannens, Peter Mechant and Rik Van de Walle
5. **Exploring an Ontology via Text Similarity: An Experimental Study.** Daniil Mirylenka,

Marco Rospocher, Ivan Donadello, Elena Cardillo and Luciano Serafini

6. **Focused Exploration of Geospatial Context on Linked Open Data.** Thomas Gottron, Johannes Schmitz and Stuart Middleton
7. **Intelligent SPARQL Query Builder for Exploration of Various Life-science Databases.** Atsuko Yamaguchi, Kouji Kozaki, Kai Lenz, Hongyan Wu and Norio Kobayashi

Organizers:**Pavel Shvaiko**

Informatica Trentina, Italy

Jérôme Euzenat

INRIA & LIG, France

Ming Mao

Electronic Arts, USA

Ernesto Jiménez-Ruiz,

University of Oxford, UK

Juanzi Li

Tsinghua University, China

Axel Ngonga

University of Leipzig, Germany

<http://om2014.ontologymatching.org/>**Room: Sala 1000A****9.00-17.30****Description**

Ontology matching is a key interoperability enabler for the Semantic Web, as well as a useful tactic in some classical data integration tasks dealing with the semantic heterogeneity problem. It takes the ontologies as input and determines as output an alignment, that is, a set of correspondences between the semantically related entities of those ontologies. These correspondences can be used for various tasks, such as ontology merging, data translation, query answering or navigation on the web of data. Thus, matching ontologies enables the knowledge and data expressed in the matched ontologies to interoperate.

The workshop has three goals:

- To bring together leaders from academia, industry and user institutions to assess how academic advances are addressing real-world requirements. The workshop will strive to improve academic awareness of industrial and final user needs, and therefore direct research towards those needs. Simultaneously, the workshop will serve to inform industry and user representatives about existing research efforts that may meet their requirements. The workshop will also investigate how the ontology matching technology is going to evolve.
- To conduct an extensive and rigorous evaluation of ontology matching and instance matching (link discovery) approaches through the OAEI (Ontology Alignment Evaluation Initiative) 2014 campaign. Besides real-world specific matching tasks, involving e.g., large biomedical

ontologies, OAEI-14 will include evaluation of interactive matchers and matchers for query answering. Therefore, the ontology matching evaluation initiative itself will provide a solid ground for discussion of how well the current approaches are meeting business needs.

- To examine new uses, similarities and differences from database schema matching, which has received decades of attention but is just beginning to transition to mainstream tools.

Papers

1. **A Categorical Approach to Ontology Alignment.** Mihai Codrescu, Till Mossakowski, Oliver Kutz
2. **The Properties of Property Alignment.** Michelle Cheatham, Pascal Hitzler
3. **Completeness and Optimality in Ontology Alignment Debugging.** Jan Noessner, Heiner Stuckenschmidt, Christian Meilicke, Mathias Niepert
4. **Time-efficient Execution of Bounded Jaro-Winkler Distances.** Kevin Dreßler, Axel-Cyrille Ngonga Ngomo
5. **A Two-step Blocking Scheme Learner for Scalable Link Discovery.** Mayank Kejriwal and Daniel P. Miranker
6. **OAEI Papers: To be available by mid October 2014**

Organizers:

Thorsten Liebig
derivo GmbH, Ulm, Germany
Achille Fokoue
IBM T.J. Watson Research Center,
NY, USA

<http://www.ssws-ws.org/SSWS2014/>
Room: Sala 100A
9.00-12.40

Invited Talks:

Boris Motik
Oxford University, UK
**RDFox - A Modern
Materialisation-Based RDF
System**

Description

SSWS 2014 is the tenth edition of the successful Scalable Semantic Web Knowledge Base Systems workshop series. We expect that scalability issues are going to challenge the Semantic Web for a long time and significant effort is needed in order to tackle them. This workshop brings together researchers and practitioners to share their recent ideas and advances towards building scalable knowledge base systems for the Semantic Web. The workshop will be centered on the discussion of three major aspects:

1. foundations, methods and technologies for pushing forward the state-of-the-art;
2. performance evaluation and related principles, methodologies and tools;
3. identification of important issues and future research directions.

Papers

1. **The NPD Benchmark for OBDA Systems.** Davide Lanti, Martin Rezk
2. **Mindaugas Slusnys.** Guohui Xiao and Diego Calvanese
3. **Scheduling for SPARQL Endpoints.** Fadi Maali, Islam A. Hassan and Stefan Decker
4. **Querying Distributed RDF Graphs: The Effects of Partitioning.** Anthony Potter, Boris Motik and Ian Horrocks
5. **A Distributed Query Execution Method for RDF Storage Managers.** Kiyoshi Nitta and Iztok Sarnik
6. **Distributed OWL EL Reasoning: The Story So Far.** Raghava Mutharaju, Pascal Hitzler and Prabhaker Mateti

<https://nlpdbpedia2014.wordpress.com/>
Room: Sala 100A
14.00-17.30

Description

The DBpedia community has recently experienced an immense increase in activity. We believe that the time has come to explore the connection between DBpedia and Natural Language Processing (NLP) in a yet unprecedented depth. The goal of this workshop can be summarized by this (pseudo) formula:

$NLP + DBpedia \equiv DBpedia4NLP \cap NLP4DBpedia$

DBpedia has a longstanding tradition to provide useful data as well as a commitment to reliable Semantic Web technologies and living best practices. With the rise of WikiData, DBpedia is step by step relieved from the tedious extraction of data from Wikipedia's infoboxes and can shift its focus on new challenges such as extracting information from the unstructured article text as well as becoming a testing ground for multilingual NLP methods.

Papers

1. **Automatic Acquisition of Adjective Lexicalizations of Restriction Classes.** Sebastian Walter, Christina Unger, Philipp Cimiano and Bettina Lanser
2. **Mining Historical Data for DBpedia via Temporal Tagging of Wikipedia Infoboxes.** Norman Weisenburger, Volha Bryl and Simone Paolo Ponzetto
3. **Bridging the Gap between Crosslingual NLP**

Organizers:

Heiko Paulheim
University of Mannheim,
Germany

Marieke van Erp
VU University Amsterdam,
The Netherlands

Agata Filipowska
Poznan University of Economics
and I2G, Poznan, Poland

Pablo N. Mendes
IBM Research, USA

Invited Talks:

Roberto Navigli
University of Rome, Italy

**(Digital) Goodies from the ERC
Wishing Well: BabelNet, Babelify,
Video Games with a Purpose
and the Wikipedia Pitaxonomy**

- and DBpedia by Exploiting Wikipedia. Lei Zhang, Achim Rettinger and Steffen Thoma
4. **Fishing for terms in half open data with TermFactory.** Shanshan Wang, Kun Ji and Lauri Carlson

Organizers:

Anna Lisa Gentile
University of Sheffield, UK
Ziqi Zhang
University of Sheffield, UK
Claudia d'Amato
University of Bari, Italy
Heiko Paulheim
University of Mannheim,
Germany

Invited Talks:

Pablo Mendes
IBM Research, USA

**Where is the Semantics
and Where do we Want it to be?**
Let the Flaming Begin

<http://oak.dcs.shef.ac.uk/ld4ie2014/>
Room: Sala Stampa A
9.00-12.40

Description

LD4IE workshop focuses on the exploitation of Linked Data for Web Scale Information Extraction (IE), which concerns extracting structured knowledge from unstructured/semi-structured documents on the Web. One of the major bottlenecks for the current state of the art in IE is the availability of learning materials (e.g., seed data, training corpora), which, typically are manually created and are expensive to build and maintain. Linked Data constitutes a mine of learning materials for IE, although multiple challenges arise from its usage in IE tasks. LD4IE focuses on (I) modelling user defined extraction tasks using LD; (II) gathering learning materials from LD assuring quality (training data selection, cleaning, feature selection etc.); (III) robust learning algorithms for handling LD; (IV) publishing IE results to the LOD cloud.

**Information Extraction
challenge**

**μRaptor: A DOM-based system with
appetite for hCard elements.** Emir
Muñoz, Luca Costabello and Pierre-
Yves Vandenbussche

Papers

1. **Cross-Document Coreference Resolution using Latent Features.** Axel-Cyrille Ngonga Ngomo, Michael Röder and Ricardo Usbeck
2. **Inductive Entity Typing Alignment.** Giuseppe Rizzo, Marieke Van Erp and Raphaël Troncy
3. **Learning Content Patterns from Linked Data.** Emir Muñoz
4. **Learning Regular Expressions for the Extraction of Product Attributes from E-commerce.** Microdata Petar Petrovski, Volha Bryl and Christian Bizer
5. **Online Index Extraction from Linked Open Data Sources.** Fabio Benedetti, Sonia Bergamaschi and Laura Po

<http://prion.semanticweb.org/>
Room: Sala Stampa A
14.00-17.30

Organizers:

Stefan Decker
INSIGHT Centre for Data
Analytics, NUIG, Ireland

Mathieu d'Aquin
Knowledge Media Institute,
Open University, UK

Christopher Brewster
Aston Business School,
Aston University, UK

Sabrina Kirrane
INSIGHT Centre for Data
Analytics, NUIG, Ireland

Description

Last year Bruce Schneier's article "The Internet is a surveillance state" summarised the state of Internet privacy as "Welcome to an Internet without privacy, and we've ended up here with hardly a fight". A couple of months later, Snowden shocked the world when he revealed that the US National Security Agency (NSA) are tracking online communication in a large scale surveillance program known as PRISM. This was quickly followed by revelations that other countries were running similar covert operations. One year on and the story is still making headline news. This year's workshop aims to build on last year's event by growing the community of individuals actively working on the topic and by promoting discussion beyond the technical aspects, building on aforementioned current events.

Papers

1. **Semantic and Sensitivity Aware Location-Privacy Protection for the Internet of Things.** Berker Agir, Jean-Paul Calbimonte and Karl Aberer
2. **A Thin-server Approach to Ephemeral Web Personalization Exploiting RDF Data Embedded in Web Pages.** Dario De Nart, Carlo Tasso and Dante Degl'Innocenti
3. **Privacy Implications of Online Consumer-Activity Data: An Empirical.** Study Keerthi Thomas
4. **How to Publish Privately.** Nuno Bettencourt, Nuno Silva and João Barroso
5. **A Semantic Context-aware Privacy Model for Face Block.** Primal Pappachan, Roberto Yus, Prajit Das, Tim Finin, Eduardo Mena and Anupam Joshi

Note: Co-Sponsored by IEEE UK and Ireland SSIT Chapter and the CityPulse Project.

Organizers:**Irene Celino**

CEFRIEL, Italy

Oscar CorchoUniversidad Politécnica
de Madrid, Spain**Emanuele Della Valle**

Politecnico di Milano, Italy

Daniele Dell'Aglio

Politecnico di Milano, Italy

Markus KrötzschTechnische Universität Dresden,
Germany**Stefan Schlobach**Vrije Universiteit Amsterdam
The Netherlands[http://www.streamreasoning.org/events/
ordering2014](http://www.streamreasoning.org/events/ordering2014)**Room: Sala Stampa B • 9.00-12.40****Description**

More and more applications require real-time processing of large, dynamically generated, ordered data, where order captures essential information about recency, proximity or relevance. Recency is crucial for recognizing temporal events, as in complex event processing; proximity and relevance are essential for ranking query answers, as in top-k query answering. In some cases, orders are a natural, even unavoidable, aspect of the data, which may constrain the ways in which we can access it. In other cases, orders need to be derived by additional computations, and then be enforced on the (unordered) input. While each of these scenarios represents some unique challenges, all of them involve streams of data and require us to reason about sequences of events. The goal of this workshop is to explore this joint concept of ordered data processing.

Invited Talks:**Jean-Paul Calbimonte**École Polytechnique Fédérale
de Lausanne, Switzerland**RDF Stream Processing: Let's
React!****Papers**

1. **Towards a Top-K SPARQL Query Benchmark Generator.** Shima Zahmatkesh, Emanuele Della Valle, Daniele Dell'Aglio and Alessandro Bozzon
2. **Enhanced e-Learning Experience by Pushing the Limits of Semantic Web Technologies.** Andrea Zielinski and Jürgen Bock
3. **Towards Efficient Processing of RDF Data Streams.** Alejandro Llaves, Javier D. Fernández and Oscar Corcho
4. **Towards an Efficient Semantically Enriched Complex Event Processing and Pattern Matching.** Syed Gillani, Gauthier Picard, Frédérique Laforest and Antoine Zimmermann
5. **Towards a Logic-Based Framework for Analyzing Stream Reasoning.** Harald Beck, Minh Dao-Tran, Thomas Eiter and Michael Fink

<http://knoesis.org/ssn2014/>
Room: Sala Stampa B
14.00-17.30

Organizers:

Michael Compton
CSIRO, Australia
Krzysztof Janowicz
University of California,
Santa Barbara, USA
Kerry Taylor
CSIRO, Australia

Description

With more IP connected devices than people and the growth of IoT predicted to outstrip all other connections, there are many growing, diverse and geographically distributed sensing environments that provide numerous data and management challenges. Semantic technologies are often proposed as important components of complex, cross-jurisdictional, heterogeneous, dynamic information systems, and the needs and opportunities arising from the rapidly growing capabilities of networked sensing devices are a challenging case.

SSN 2014 aims to provide an inter-disciplinary forum to explore and promote the technologies related to a combination of the semantic web, sensor networking and sensors in the Internet of Things. Specifically, to develop an understanding of the ways semantic web technologies can contribute to the growth, application and deployment of large-scale sensor networks on the one hand, and the ways that sensor networks can contribute to the emerging semantic web, on the other.

Invited Talks:

Payam Barnaghi
University of Surrey, UK
**Dynamic Semantics for Dynamic
IoT Environments**

Papers

1. **A Validation Tool for the W3C SSN Ontology based Sensory Semantic Knowledge.** Sefki Koložali, Tarek Elsaleh and Payam Barnaghi
2. **XGSN: An Open-source Semantic Sensing Middleware for the Web of Things.** Jean-Paul Calbimonte, Sofiane Sarni, Julien Eberle and Karl Aberer
3. **Sensor Data Provenance: SSNO and PROV-O Together At Last.** Michael Compton, David Corsar and Kerry Taylor
4. **Demo Paper: Helping IoT Application De-**

velopers with **Sensor-based Linked Open Rules**. Amelie Gyrard, Christian Bonnet and Karima Boudaoud

5. **Demonstration: Web based Visualisation and Monitoring of Smart Meters using CQELS**. Maxim Kolchin, Dmitry Mouromtsev and Sergey Arustamov
6. **Weather Station Data Publication at IRSTEA: An Implementation Report**. Catherine Roussey, Stephan Bernard, Géraldine André, Oscar Corcho, Gil De Sousa, Daniel Boffety and Jean-Pierre Chanet

<https://gate.ac.uk/tutorials/iswc2014-social-media-tutorial.html>
Room: Sala 100B • 9.00-17.30

Speakers:

Kalina Bontcheva
University of Sheffield, UK
Diana Maynard
University of Sheffield, UK
Marta Sabou
MODUL University Vienna, Austria

Description

This tutorial takes a detailed view of key semantic annotation tasks (corpus annotation, linguistic pre-processing, entity and relation recognition, LOD-based entity linking and disambiguation, and opinion mining) of social media content. It will cover both the latest state-of-the-art research and selected established methods and tools for natural language processing (NLP), which have been adapted to social media. Topics covered include the comparison of traditional news-based text with social media in terms of processing techniques, an introduction to semantic annotation, description of algorithms tailored to social media, crowdsourcing approaches to collecting data for annotation and evaluation, and a look at real applications, including summarisation of social media content, user modelling, media monitoring and semantics-based information visualisation. The tutorial will be interspersed with practical exercises for the participants to carry out, using the GATE toolkit.

Program

After a short introduction to the challenges of processing social media, we will cover key semantic annotation algorithms adapted to processing such content, discuss available evaluation datasets and outline remaining challenges. Since the lack of human-annotated, gold-standard corpora of social media content is another major challenge, this tutorial will cover also crowdsourcing approaches used to collect training and evaluation data (including paid-for crowdsourcing with CrowdFlower, also combined with expert-sourcing and games with a purpose). Each main section of the tutorial will contain practical exercises for the participants to try out examples for themselves and see the results: for example, experimenting with different methods, tools and resources for the same task to see how the results differ.

Speakers:

Jorge Gracia

Artificial Intelligence
Department of Universidad
Politécnica
de Madrid, Spain

Daniel Vila-Suero,

Universidad Politécnica
de Madrid, Spain

John McCrae

Cognitive Interaction Technology
Excellence Center at Bielefeld
University, Germany

Sebastian Walter

Semantic Computing Group
at Bielefeld University, Germany

Ciro Baron Neto

University of Leipzig, Germany

Martin Brümmer

University of Leipzig, Germany

Roberto Navigli

Department of Computer Science
at the Sapienza University
of Rome, Italy

Tiziano Flati

Department of Computer Science
at the Sapienza University
of Rome, Italy

http://www.lider-project.eu/iswc14_MLW-DTutorial

Room: Sala Belvedere • 9.00-17.30

Description

The multilingual Web of Data can be realized as a layer of services and resources on top of the current Linked Data cloud which adds: linguistic information in different languages, mappings between data with labels in different languages, and services to dynamically access and traverse Linked Data across different languages.

Contributing towards this vision, in this tutorial we provide an overview of ingredients that are crucial to bring the vision of a multilingual web of data into reality. In particular, the tutorial will tackle the following questions:

- How to represent rich multilingual lexical information (beyond `rdfs:label`) and associate it to ontologies and linked data?
- How to represent and publish multilingual texts, annotations and corpora as linked data?
- How to generate multilingual linked data from data silos?
- How to perform word sense disambiguation and entity linking of multilingual linked data?
- How to apply these techniques to a real use case?

We will try to answer them in a practical way, by means of examples and hands-on exercises.

Program

9.00-9.15

- Opening: introduction and goals of the tutorial

9.15-10.30

- **Session 1** Modelling lexical resources on the Web of Data: the lemon model

10.30-11.00 COFFEE BREAK

11.00-12.15

- **Session 2 (1st part)** Integrating NLP with Linked Data and RDF: the NIF format (introduction)

12.15-12.40

- **Session 3** Multilingual Word Sense Disambiguation and Entity Linking on the Web based on BabelNet (lexical and encyclopedic language resource)

12.40-14.00 LUNCH BREAK

14.00-14.45

- **Session 2 (2nd part)** Integrating NLP with Linked Data and RDF: the NIF format (hands on)

14.45-15.30

- **Session 4 (1st part)** Methodology and tools for Multilingual Linked Data generation (introduction)

15.30 -16.00 Coffee Break

16.00-16.30

- **Session 4 (2nd part)** Methodology and tools for Multilingual Linked Data generation (hands on)

16.30-17.30

- **Session 5** Generating Multilingual Variants for Automatically Extracted Sentiment Lexicons: the Eurosentiment Use Case

Monday, October 20: Tutorial Apache Marmotta

Speakers:

Sebastian Schaffert

Salzburg Research/Apache
Software Foundation, Austria

Sergio Fernández

Salzburg Research/Apache
Software Foundation, Austria

Thomas Kurz

Salzburg Research/Apache
Software Foundation, Austria

Jakob Frank

Salzburg Research/Apache
Software Foundation, Austria

[http://marmotta.apache.org/events/
iswc2014.html](http://marmotta.apache.org/events/iswc2014.html)

Room: Sala Presidenza • 9.00-12.40

Description

The Linked Data Platform working group at W3C is currently finalising the first version of the Linked Data Platform (LDP) recommendation. The goal of the Linked Data Platform is to provide a specification on how to use HTTP to interact with servers that expose their resources as Linked Data. Beyond the established Linked Data principles, it provides additional functionalities like create, read, update, and delete resources, manage collections of resources in different containers, and combining RDF and non-RDF resources (e.g. media resources). It is expected that many Linked Data servers will in the coming months add support for some of the LDP functionalities. Apache Marmotta, an Open Source implementation of a Linked Data server with many modules and extensions, is one of the first frameworks to offer a feature-complete reference implementation of this recommendation. As Open Source Software hosted by the Apache Software Foundation, it is a framework that can be used and extended freely in both academic and commercial contexts, and is therefore well suited as foundation for the Linked Data Platform. As the Linked Data Platform is an emerging standard, it has – to the best of our knowledge – so far not been presented in similar tutorials.

Program

- 1 h
Introduction into Apache Marmotta
- 1 h
Linked Data Platform
- 1 h
Semantic Media Management

<http://www.linkedtv.eu/event/tutorial/>
Room: Sala Presidenza
14.00-17.30

Description

The Web is developing not just into a more Semantic Web but also into a much richer Multimedia Web. While a layer of semantics is being developed on top of web pages and textual documents via structured data markup and more and more linked data datasets are published, the rapidly growing mass of online media – audio, image, video – is nowhere nearly as integrated into this body of web-wide knowledge. Media annotation does take place within archives and repositories, but even the “semantic” annotation is typically disconnected from the web and its semantics layer. Linked Data-based annotation of media resources published on the Web could drive new applications for media retrieval and re-use, to the benefit of both media owners and consumers. This tutorial will look at tools and services to semantically annotate online media and use those annotations for online retrieval and re-use based on a number of emerging web specifications and technologies. We will focus on means to annotate spatial and temporal fragments of media assets with Linked Data concepts, how to use those annotations to discover types of relevancy between distinct media assets and development of applications using discovered links between annotated media to provide enhanced user services.

Speakers:

Raphaël Troncy
EURECOM, Sophia Antipolis,
France

Lyndon Nixon
MODUL University Vienna,
Austria

Michiel Hildebrand
CWI, Amsterdam,
The Netherlands

Program

- **Session 1:**
Media Fragment Specification
and Semantics
- **Session 2:**
Linked Media: An Approach
to Online Media Annotation
and Re-use
- **Session 3:**
User Experience Driven Design
of Linked Media Applications

Organizers:

Paul Groth
VU Amsterdam, The Netherlands
Natasha Noy
Google

Room: Sala 300A
9.00-17.30

Description

The Doctoral Consortium is an interactive event allowing the next generation of Semantic Web researchers to present their proposals and receive extensive feedback and comments from mentors in the community as well as from their peers.

We encourage community members to attend to help and encourage these students.

Papers

Accepted for publication in the Proceedings and presentation at the DC:

1. **Detecting and Correcting Conservativity Principle Violations in Ontology Mappings.** Alessandro Solimando
2. **Enriching Ontologies with Encyclopedic Background Knowledge for Document Indexing.** Lisa Posch
3. **Populating Entity Name Systems for Big Data Integration.** Mayank Kejriwal
4. **Joint Information Extraction from the Web using Linked Data.** Isabelle Augenstein
5. **Semantic Complex Event Processing for Decision Support.** Robin Keskisärkkä
6. **Entity Linking with Multiple Knowledge Bases: an Ontology Modularization Approach.** Bianca De O. Pereira

Accepted for presentation at the DC:

1. **Interpreting Environmental Computational Spreadsheets.** Martine de Vos
2. **Investigating Elastic Cloud Based Reasoning for the Semantic Web.** Omer Dawelbeit
3. **Consistency criteria for a Read/Write Web of Linked Data.** Luis-Daniel Ibáñez
4. **A Rule based Approach to Address Semantic Accuracy Problems on Linked Data.** Leandro Mendoza
5. **Mapping, enriching and interlinking data from heterogeneous distributed source.** Anastasia Dimou
6. **A Data-flow Language for Big RDF Data Processing.** Fadi Maali
7. **Linked Data Application Development Methodology.** Yusuf Mashood

8. Profiling the Web of Data. Anja Jentzsch
9. Optimizing SPARQL Query Processing on Dynamic and Static Data Sources Based on Query Response Requirements Using Materialization. Soheila Dehghanzadeh
10. A Knowledge based Model for Instructional Design. Frosina Koceva
11. Retrieval of the Most Relevant Combinations of Data Published in Heterogeneous Distributed Datasets on the Web. Shima Zahmatkesh

Monday, October 20

Rocca, Town Centre
18.30-20.00

Welcome Aperitif

During the Welcome Aperitif there will be the musical performance of Sant'Ilario Choir, conducted by choral director Antonio Pileggi.

Note: In case of bad weather, the Welcome Aperitif will be held at Palameeting.

Sala Belvedere
19.30-23.00

SWSA MEETING

Invitation only



Tuesday, October

21

ROOM: SALA 1000A • 9.00-9.30

- **Opening and 10 years award presentation**

Chair: Carole Goble and Abraham Bernstein

ROOM: SALA 1000A • 9.30-10.30

- **Keynote: Web Search - From The Noun to The Verb**

Prabhakar Raghavan, Vice President of Engineering Google

Chair: Peter Mika

10.30-11.00 Break • Room: Palameeting

ROOM: SALA 1000A • 11.00-12.20**Session: Data Integration and Link Discovery in Life Sciences**

Chair: Paul Groth

- EPCIS Event based Traceability in Pharmaceutical Supply Chains via Automated Generation of Linked Pedigrees.
Monika Solanki and Christopher Brewster
- Scientific Lenses to Support Multiple Views over Linked Chemistry Data.
Colin Batchelor, Christian Y. A. Brenninkmeijer, Christine Chichester, Mark Davies, Daniela Digles, Ian Dunlop, Chris Evelo, Anna Gaulton, Carole Goble, Alasdair J. G. Gray, Paul Groth, Lee Harland, Karen Karapetyan, Antonis Loizou, John Overington, Steve Pettifer, Jonathan Steele, Robert Stevens, Valery Tkachenko, Andra Waagmeester, Antony Williams and Egon Willighagen

- **Linked Biomedical Dataspace: Lessons Learned integrating Data for Drug Discovery.**
Ali Hasnain, Maulik R. Kamdar, Panagiotis Hasapis, Dimitris Zeginis, Claude N. Warren Jr, Helena F Deus, Dimitrios Ntalaperas, Konstantinos Tarabanis, Muntazir Mehdi and Stefan Decker
- **Drug-Target Interaction Prediction Using Semantic Similarity and Edge Partition.**
Guillermo Palma, Maria-Esther Vidal and Louiqa Raschid

ROOM: SALA 300 • 11.00-12.20**Session: Querying**

Chair: Johanna Völker

- **Structural Properties as Proxy for Semantic Relevance in RDF Graph Sampling.**
Laurens Rietveld, Rinke Hoekstra, Stefan Schlobach and Christophe Guéret
- **Holistic and Compact Selectivity Estimation for Hybrid Queries over RDF Graphs.**
Andreas Wagner, Veli Bicer, Thanh Tran and Rudi Studer
- **Querying Factorized Probabilistic Triple Databases (Best Research Paper nominee).**
Denis Krompaß, Maximilian Nickel and Volker Tresp
- **Ontology Search: An Empirical Evaluation**
Anila Sahar Butt, Armin Haller and Lexing Xie

ROOM: SALA 1000B • 11.00-12.20**Session: NLP & IEs**

Chair: Marco Rospocher

- **AGDISTIS - Graph-Based Disambiguation of Named Entities using Linked Data (Best Research Paper nominee).**

Ricardo Usbeck, Axel-Cyrille Ngonga Ngomo, Michael Röder, Daniel Gerber, Sandro Athaide Coelho, Sören Auer and Andreas Both

- **M-ATOLL: A Framework for the Lexicalization of Ontologies in Multiple Languages.**
Sebastian Walter, Christina Unger and Philipp Cimiano
- **Towards Efficient and Effective Semantic Table Interpretation.**
Ziqi Zhang
- **Semano: Semantic Annotation Framework for Natural Language Resources (10 minutes talk).**
David Robert Berry and Nadeschda Nikitina
- **Ensemble Learning for Named Entity Recognition (10 minutes talk).**
René Speck and Axel-Cyrille Ngonga Ngomo

12.20-13.30 Lunch • Room: Palameeting

JWS Lunch (Invitation only) • Room: Sala 100

ROOM: SALA 1000A • 13.30-14.30

- **Keynote: Semantic Challenges in Getting Work Done**

Yolanda Gil, Associate Director of the Intelligent Systems Division at Information Sciences Institute, University of Southern California, USA
Chair: Carole Goble

14.30-14.40 Break • Room: Palameeting

ROOM: SALA 1000A • 14.40-16.00

Session: Data Integration and Link Discovery

Chair: Enrico Motta

- **CAMO: Integration of Linked Open Data for Multimedia Metadata Enrichment.**
Wei Hu, Cunxin Jia, Lei Wan, Liang He, Lixia Zhou and Yuzhong Qu
- **HELIOS - Execution Optimization for Link Discovery.**
Axel-Cyrille Ngonga Ngomo
- **SAKey: Scalable Almost Key discovery in RDF data.**
Danai Symeonidou, Vincent Armant, Nathalie Pernelle and Fatiha Sais
- **Introducing Wikidata to the Linked Data Web (10 minutes talk).**
Fredo Erxleben, Michael Günther, Markus Krötzsch, Julian Mendez and Denny Vrandečić
- **Web-Scale Extension of RDF Knowledge Bases from Templated Websites (10 minutes talk).**
Lorenz Bühmann, Ricardo Usbeck, Axel-Cyrille Ngonga Ngomo, Muhammad Saleem, Andreas Both, Valter Crescenzi, Paolo Merialdo and Disheng Qiu

ROOM: SALA 300 • 14.40-16.00

Session: Sensors

Chair: Oscar Corcho

- **Knowledge-driven Activity Recognition and Segmentation Using Context Connections.**

Georgios Meditskos, Efstratios Kontopoulos and Ioannis Kompatsiaris

- **A Use Case in Semantic Modelling and Ranking for the Sensor Web.**
Liliana Cabral, Michael Compton and Heiko Mueller
- **Semantic Traffic Diagnosis with STAR-CITY: Architecture and Lessons Learned from Deployment in Dublin, Bologna, Miami and Rio (Best In Use Paper Nominee).**
Freddy Lecue, Robert Tucker, Simone Tallavi-Diotallevi, Rahul Nair, Yiannis Gkoufas, Giuseppe Liguori, Mauro Borioni, Alexandre Rademaker and Luciano Barbosa
- **Adapting Semantic Sensor Networks for Smart Building Analytics (Best In Use Paper Nominee).**
Joern Ploennigs, Anika Schumann and Freddy Lecue

ROOM: SALA 1000B • 14.40-16.00

Session: Reasoning

Chair: Luciano Serafini

- **Pushing the Boundaries of Tractable Ontology Reasoning (Student Best Paper Nominee).**
David Carral, Cristina Feier, Bernardo Cuenca Grau, Pascal Hitzler and Ian Horrocks
- **Effective computation of maximal sound approximations of Description Logic ontologies.**
Marco Console, Jose Mora, Riccardo Rosati, Valerio Santarelli and Domenico Fabio Savo

- **Abstraction Refinement for Ontology Materialization.**
Birte Glimm, Yevgeny Kazakov, Thorsten Liebig, Trung-Kien Tran and Vincent Vialard
- **Goal-Directed Tracing of Inferences in EL Ontologies.**
Yevgeny Kazakov and Pavel Klinov

16.00-16.20 Break • Room: Palameeting

ROOM: SALA 1000A • 16.20-17.50

Poster Minute Madness

ROOM: SALA 1000A • 17.50-18.00

LinkedUp Madness

ROOM: SALA 1000B • 18.30-19.30

The European Ontology Network: Bringing Semantic Web Experts and Ontologists Together

www.euon.org

EUON is an open and voluntary based networking activity for experts in semantic web technologies and ontology development both from academia and industry. EUON was built upon the clearly identified need to share experiences with and questions about building semantic web infrastructures across domains. In this event, we are inviting the interested ISWC participants to join us for a roundtable discussion featuring Dr. Bijan Parsia, Dr. Kerstin Forsberg and Dr. Mark Musen. This event is also an open platform for people interested in joining and contributing to the network activities.

We will discuss some specific topic relevant to the ISWC audience, including:

- the future role of ontologies in RDF and linked data work;
- bridging lighter weight semantics and schema with the heavier weight ontologies;
- the role for ontologies in the internet of things regarding data integration, including devices used in areas such as personal health monitoring.

The meeting is open to all – please bring along your questions and thoughts!

Organizers

James Malone, PhD - Lead ontologist @ EBI, Cambridge, UK

Yann Le Franc, PhD - CEO and Founder @ e-Science Data Factory S.A.S.U., Paris, France

Program

Roundtable discussion: Bridging ontology and semantic web communities.

Guests:

- Dr. Bijan Parsia (University of Manchester)
- Dr. Kerstin Forsberg (AstraZeneca)
- Dr. Mark Musen (Director of NCBO, Stanford University)

ROOM: PALAMEETING • 18.30-21.30

Posters, Demos and LinkedUp Competition Session

This year the Posters and Demonstrations session will be livier than ever, hosting 71 posters and 50 demos selected out of 156 submissions. Each poster and demo will be introduced by its

presenter with a blazing teaser during the Minute Madness session. Come in and pick your favorite!

List of demos:

- * **A Web Browser Personalization with a Client Side Triplestore.** Hitoshi Uchida and Ralph Swick
- * **Life Stories as Event-based Linked Data: Case Semantic National Biography.** Eero Hyvönen, Miika Alonen, Esko Ikkala and Eetu Mäkelä
- * **News Visualization based on Semantic Knowledge.** Sebastian Arnold, Damian Burke, Tobias Dörsch, Bernd Löber and Andreas Lommatzsch
- * **Sherlock: a Semi-Automatic Quiz Generation System using Linked Data.** Dong Liu and Chenghua Lin
- * **Low-Cost Queryable Linked Data through Triple Pattern Fragments.** Ruben Verborgh, Olaf Hartig, Ben De Meester, Gerald Haesendonck, Laurens De Vocht, Miel Vander Sande, Richard Cyganiak, Pieter Colpaert, Erik Mannens and Rik Van de Walle
- * **Call: A Nucleus for a Web of Open Functions.** Maurizio Atzori
- * **Cross-lingual Detection of World Events from News Articles.** Gregor Leban, Blaž Fortuna, Janez Brank and Marko Grobelnik
- * **Multilingual Word Sense Disambiguation and Entity Linking for Everybody.** Andrea Moro, Francesco Ceconi and Roberto Navigli
- * **Help me describe My Data: a Demonstration**

- tion of the Open PHACTS VoID Editor. Carole Goble, Alasdair J. G. Gray and Eleftherios Tatakis
- * **OUSocial2 - A Platform for Gathering Students' Feedback from Social Media.** Keerthi Thomas, Miriam Fernandez, Stuart Brown and Harith Alani
 - * **Using an Ontology Learning System for Trend Analysis and Detection.** Gerhard Wohlgenannt, Stefan Belk, Matyas Karacsonyi and Matthias Schett
 - * **A Prototype Web Service for Benchmarking Power Consumption of Mobile Semantic Applications.** Evan Patton and Deborah McGuinness
 - * **SPARKLIS: a SPARQL Endpoint Explorer for Expressive Question Answering.** Sébastien Ferré
 - * **Reconciling Information in DBpedia through a Question Answering System.** Elena Cabrio, Alessio Palmero Arosio and Serena Villata
 - * **Open Mashup Platform - A Smart Data Exploration Environment.** Tuan-Dat Trinh, Ba-Lam Do, Peter Wetz, Amin Anjomshoaa, Elmar Kiesling and Amin Tjoa
 - * **CIMBA - Client-Integrated MicroBlogging Architecture.** Andrei Sambra, Sandro Hawke, Timothy Berners-Lee, Lalana Kagal and Ashraf Aboulnaga
 - * **The Organiser - A Semantic Desktop Agent based on NEPOMUK.** Sebastian Faubel and Moritz Eberl
 - * **HDTourist: Exploring Urban Data on Android.** Elena Hervalejo, Miguel A. Martinez-Prieto, Javier D. Fernández and Oscar Corcho
 - * **Integrating NLP and SW with the KnowledgeStore.** Marco Rospocher, Francesco Corcoglioniti, Roldano Cattoni, Bernardo Magnini and Luciano Serafini
 - * **Graphical Representation of OWL 2 Ontologies through Graphol.** Marco Console, Domenico Lembo, Valerio Santarelli and Domenico Fabio Savo
 - * **LIVE: a Tool for Checking Licenses Compatibility between Vocabularies and Data.** Guido Governatori, Ho-Pun Lam, Antonino Rotolo, Serena Villata, Ghislain Auguste Atomezing and Fabien Gandon
 - * **The Map Generator Tool.** Valeria Fionda, Giuseppe Pirrò and Claudio Gutierrez
 - * **Named Entity Recognition using FOX.** René Speck and Axel-Cyrille Ngonga Ngomo
 - * **A Linked Data Platform adapter for the Bugzilla issue tracker.** Nandana Mihindukulasooriya, Miguel Esteban-Gutierrez and Raúl García-Castro
 - * **LED: Curated and Crowdsourced Linked Data on Music Listening Experiences.** Alessandro Adamou, Mathieu D'Aquin, Helen Barlow and Simon Brown
 - * **WhatTheySaid: Enriching UK Parliament Debates with Semantic Web.** Yunjia Li, Chaohai Ding and Mike Wald
 - * **Multilingual Disambiguation of Named En-**

- tities Using Linked Data. Ricardo Usbeck, Axel-Cyrille Ngonga Ngomo, Wencan Luo and Lars Wesemann
- * **The Wikipedia Bitaxonomy Explorer.** Tiziano Flati and Roberto Navigli
 - * **Enhancing Web Intelligence with the Content of Online Video Fragments.** Lyndon Nixon, Matthias Bauer and Arno Scharl
 - * **EMBench: Generating Entity-Related Benchmark Data.** Ekaterini Ioannou and Yannis Velegarakis
 - * **Demonstration of Multi-Perspective Exploratory Search with the Discovery Hub web Application.** Nicolas Marie and Fabien Gandon
 - * **Modeling and Monitoring Processes exploiting Semantic Reasoning.** Mauro Dragoni, Piergiorgio Bertoli, Chiara Di Francescomarino, Chiara Ghidini, Michele Nori, Marco Pistore, Roberto Tiella and Francesco Corcoglioniti
 - * **WikipEvent: Temporal Event Data for the Semantic Web.** Ujwal Gadiraju, Kaweh Djafari Naini, Andrea Ceroni, Mihai Georgescu, Dang Duc Pham and Marco Fisichella
 - * **Towards a DBpedia of Tourism: the Case of Tourpedia.** Stefano Cresci, Andrea D'Erri-co, Davide Gazzè, Angelica Lo Duca, Andrea Marchetti and Maurizio Tesconi
 - * **Using Semantics for Interactive Visual Analysis of Linked Open Data.** Gerwald Tschinkel, Eduardo Veas, Belgin Mutlu and Vedran Sabol
 - * **Exploiting Linked Data Cubes with Open-Cube Toolkit.** Evangelos Kalampokis, Andriy Nikolov, Peter Haase, Richard Cyganiak, Arkadiusz Stasiewicz, Areti Karamanou, Maria Zotou, Dimitris Zeginis, Efthimios Tambouris and Konstantinos Tarabanis
 - * **Detecting Hot Spots in Web Videos.** José Luis Redondo-García, Mariella Sabatino, Pasquale Lisena and Raphaël Troncy
 - * **EUROSENTIMENT: Linked Data Sentiment Analysis.** J. Fernando Sánchez-Rada, Gabriela Vulcu, Carlos A. Iglesias and Paul Buitelaar
 - * **Property-based Typing with LITEQ.** Stefan Scheglmann, Martin Leinberger, Ralf Lämmel, Steffen Staab and Matthias Thimm
 - * **From Tale to Speech: Ontology-based Emotion and Dialogue Annotation of Fairy Tales with a TTS Output.** Christian Eisenreich, Jana Ott, Tonio Süßdorf, Christian Willms and Thierry Declerck
 - * **BIOTEX: A System for Biomedical Terminology Extraction, Ranking, and Validation.** Juan Antonio Lossio Ventura, Clement Jonquet, Mathieu Roche and Maguelonne Teisseire
 - * **Visualizing and Animating Large-scale Spatiotemporal Data with ELBAR Explorer.** Suvodeep Mazumdar and Tomi Kauppinen
 - * **A Demonstration of Linked Data Source Discovery and Integration.** Jason Slepicka, Chengye Yin, Pedro Szekely and Craig Knoblock
 - * **Developing Mobile Linked Data Applications.** Oshani Seneviratne, Evan Patton, Daniela Miao, Fuming Shih, Weihua Li, Lalana Kagal and Carlos Castillo

- * **A Visual Summary for Linked Open Data sources.** Fabio Benedetti, Laura Po and Sonia Bergamaschi
 - * **Curry. EasyESA: A Low-effort Infrastructure for Explicit Semantic Analysis.** Danilo Carvalho, Cagatay Calli, Andre Freitas and Edward
 - * **LODHub - A Platform for Sharing and Analyzing large-scale Linked Open Data.** Stefan Hagedorn and Kai-Uwe Sattler
 - * **LOD4AR: Exploring Linked Open Data with a Mobile Augmented Reality Web Application.** Silviu Vert, Bogdan Dragulescu and Radu Vasiu
 - * **PLANET: Query Plan Visualizer for Shipping Policies against Single SPARQL Endpoints.** Maribel Acosta, Maria Esther Vidal, Fabian Flöck, Simon Castillo and Andreas Harth
 - * **High Performance Linked Data Processing for Virtual Reality Environments.** Felix Leif Keppmann, Tobias Käfer, Steffen Stadtmüller, René Schubotz and Andreas Harth
- List of posters:**
- * **Analyzing Relative Incompleteness of Movie Descriptions in the Web of Data: A Case Study.** Wancheng Yuan, Elena Demidova, Stefan Dietze and Xuan Zhou
 - * **A Semantic Metadata Generator for Web Pages Based on Keyphrase Extraction.** Dario De Nart, Carlo Tasso and Dante Degl'Innocenti
 - * **A Multilingual SPARQL-Based Retrieval Interface for Cultural Heritage Objects.** Dana Dannells, Ramona Enache and Mariana Damova
 - * **Extending Tagging Ontologies with Domain Specific Knowledge.** Frederic Font, Sergio Oramas, György Fazekas and Xavier Serra
 - * **Disambiguating Web Tables using Partial Data.** Ziqi Zhang
 - * **On Linking Heterogeneous Dataset Collections.** Mayank Kejriwal and Daniel Miranker
 - * **Scientific data as RDF with Arrays: Tight integration of SciSPARQL queries into MAT-LAB.** Andrej Andrejev, Xueming He and Tore Risch
 - * **Measuring Similarity in Ontologies: a New Family of Measures.** Tahani Alsubait, Bijan Parsia and Uli Sattler
 - * **Towards Combining Machine Learning with Attribute Exploration for Ontology Refinement.** Jędrzej Potoniec, Sebastian Rudolph and Agnieszka Ławrynowicz
 - * **ASSG: Adaptive structural summary for RDF graph data.** Haiwei Zhang, Yuanyuan Duan, Xiaojie Yuan and Ying Zhang
 - * **Evaluation of String Normalisation Modules for String-based Biomedical Vocabularies Alignment with AnAGram.** Anique van Berne and Veronique Malaise
 - * **Keyword-Based Semantic Search Engine Koios++.** Björn Forcher, Andreas Giloj and Erich Weichselgartner
 - * **Supporting SPARQL Update Queries in RDF-XML Integration.** Nikos Bikakis, Chrisa

- Tsinarakis, Ioannis Stavrakantonakis and Stavros Christodoulakis
- * **CURIOS: Web-based Presentation and Management of Linked Datasets.** Hai Nguyen, Stuart Taylor, Gemma Webster, Nophadol Jekjantuk, Chris Mellish, Jeff Z. Pan and Tristan Ap Rheinallt
 - * **The uComp Protege Plugin for Crowdsourcing Ontology Validation.** Florian Hanika, Gerhard Wohlgenannt and Marta Sabou
 - * **Frame-Semantic Web: a Case Study for Korean.** Jungyeul Park, Sejin Nam, Youngsik Kim, Younggyun Hahm, Dosam Hwang and Key-Sun Choi
 - * **SparkRDF: Elastic Discreted RDF Graph Processing Engine With Distributed Memory.** Xi Chen, Huajun Chen, Ningyu Zhang and songyang Zhang
 - * **LEAPS: A Semantic Web and Linked data framework for the Algal Biomass Domain.** Monika Solanki
 - * **Bridging the Semantic Gap between RDF and SPARQL using Completeness Statements.** Fariz Darari, Simon Razniewski and Werner Nutt
 - * **COLINA: A Method for Ranking SPARQL Query Results through Content and Link Analysis.** Azam Feyznia, Mohsen Kahani and Fattane Zarrinkalam
 - * **Licentia: a Tool for Supporting Users in Data Licensing on the Web of Data.** Cristian Cardellino, Serena Villata, Fabien Gandon, Guido Governatori, Ho-Pun Lam and Antonino Rotolo
 - * **Automatic Stopword Generation using Contextual Semantics for Sentiment Analysis of Twitter.** Hassan Saif, Miriam Fernandez and Harith Alani
 - * **The Manchester OWL Repository: System Description.** Nicolas Matentzoglou, Daniel Tang, Bijan Parsia and Uli Sattler
 - * **A Fully Parallel Framework for Analyzing RDF Data.** Long Cheng, Spyros Kotoulas, Thomas Ward and Georgios Theodoropoulos
 - * **Objects as Results from Graph Queries Using an ORM and Generated Semantic-Relation Binding.** Marc-Antoine Parent
 - * **Hedera: Scalable Indexing and Exploring Entities in Wikipedia Revision History.** Tuan Tran and Tu Ngoc Nguyen
 - * **Evaluating Ontology Alignment Systems in Query Answering Tasks.** Alessandro Solimando, Ernesto Jimenez-Ruiz and Christoph Pinkel
 - * **Using Fuzzy Logic For Multi-Domain Sentiment Analysis.** Mauro Dragoni, Andrea Tetamanzi and Célia Da Costa Pereira
 - * **AMSL – Creating a Linked Data Infrastructure for Managing Electronic Resources in Libraries.** Natanael Arndt, Sebastian Nuck, Andreas Nareike, Norman Radtke, Leander Seige and Thomas Riechert
 - * **Extending an Ontology Alignment System with BioPortal: a Preliminary Analysis.** Xi Chen, Weiguo Xia, Ernesto Jimenez-Ruiz and Valerie Cross
 - * **How Much Navigable is the Web of Linked Data?** Valeria Fionda and Enrico Malizia

- * **A Framework for Incremental Maintenance of RDF Views of Relational Data.** Vânia Vidal, Marco Antonio Casanova, Jose Monteiro, Narciso Arruda, Diego Sá and Valeria Pequeno
- * **Document Relation System Based on Ontologies for the Security Domain.** Janine Hellriegel, Hans Ziegler and Ulrich Meissen
- * **Representing Swedish Lexical Resources in RDF with lemon.** Lars Borin, Dana Dannells, Markus Forsberg and John P. McCrae
- * **QASM: a Q&A Social Media System Based on Social Semantic.** Zide Meng, Fabien Gandon and Catherine Faron-Zucker
- * **A Semantic-Based Platform for Efficient Online Communication.** Zaenal Akbar, José María García, Ioan Toma and Dieter Fensel
- * **SHAX: The Semantic Historical Archive eXplorer.** Michael Feldman, Shen Gao, Marc Novel, Katerina Papaioannou and Abraham Bernstein
- * **SemanTex: Semantic Text Exploration Using Document Links Implied by Conceptual Networks Extracted from the Texts.** Suad Aldarra, Emir Muñoz, Pierre-Yves Vandenbussche and Vit Novacek
- * **Towards a Top-K SPARQL Query Benchmark.** Shima Zahmatkesh, Emanuele Della Valle, Daniele Dell'aglio and Alessandro Bozzone
- * **Exploring Type-Specific Topic Profiles of Datasets: a Demo for Educational Linked Data.** Davide Taibi, Stefan Dietze, Besnik Fetahu and Giovanni Fulantelli
- * **TEX-OWL: a Latex-Style Syntax for authoring OWL 2 ontologies.** Matteo Matassoni, Marco Rospocher, Mauro Dragoni and Paolo Bouquet
- * **Supporting Integrated Tourism Services with Semantic Technologies and Machine Learning.** Francesca Alessandra Lisi and Floriana Esposito
- * **Towards a Semantically Enriched Online Newspaper.** Ricardo Kawase, Eelco Herder and Patrick Siehndel
- * **Identifying Topic-Related Hyperlinks on Twitter.** Patrick Siehndel, Ricardo Kawase, Eelco Herder and Thomas Risse
- * **Capturing and Linking Human Sensor Observations with YouSense.** Tomi Kauppinen, Evgenia Litvinova and Jan Kallenbach.
- * **An Update Strategy for the WaterFowl RDF Data Store.** Olivier Curé and Guillaume Blin.
- * **Linking Historical Data on the Web.** Valeria Fionda and Giovanni Grasso.
- * **User Driven Information Extraction with LODIE.** Anna Lisa Gentile and Suvodeep Mazdumar.
- * **QALM: a Benchmark for Question Answering over Linked Merchant Websites Data.** Amine Hallili, Elena Cabrio and Catherine Faron Zucker
- * **GeoTriples: a Tool for Publishing Geospatial Data as RDF Graphs Using R2RML Mappings.** Kostas Kyzirakos, Ioannis Vlachopoulos, Dimitrios Savva, Stefan Manegold and Manolis Koubarakis

- * **New Directions in Linked Data Fusion.** Jan Michelfeit and Jindřich Mynarz.
- * **Bio2RDF Release 3: a Larger, more Connected Network of Linked Data for the Life Sciences.** Michel Dumontier, Alison Callahan, Jose Cruz-Toledo, Peter Ansell, Vincent Emonet, François Belleau and Arnaud Droit
- * **Infoboxer: Using Statistical and Semantic Knowledge to Help Create Wikipedia Infoboxes.** Roberto Yus, Varish Mulwad, Tim Finin and Eduardo Mena
- * **The Topics they are a-Changing - Characterising Topics with Time-Stamped Semantic Graphs.** Amparo E. Cano, Yulan He and Harith Alani
- * **Linked Data and Facets to Explore Text Corpora in the Humanities: a Case Study.** Christian Morbidoni
- * **Dexter 2.0 - an Open Source Tool for Semantically Enriching Data.** Diego Ceccarelli, Claudio Lucchese, Salvatore Orlando, Raffaele Perego and Salvatore Trani
- * **A Hybrid Approach to Learn Description Logic Ontology from Texts.** Yue Ma and Ali-fah Syamsiyah
- * **Identifying First Responder Communities Using Social Network Analysis.** John Erickson, Katherine Chastain, Zachary Fry, Jim Mccusker, Rui Yan, Evan Patton and Deborah McGuinness
- * **Exploiting Semantic Annotations for Entity-based Information Retrieval.** Lei Zhang, Michael Färber, Thanh Tran and Achim Rettinger
- * **Crawl Me Maybe: Iterative Linked Dataset Preservation.** Besnik Fetahu, Ujwal Gadiraju and Stefan Dietze
- * **A Semantics-Oriented Storage Model for Big Heterogeneous RDF Data.** Hyeongsik Kim, Padmashree Ravindra and Kemafor Anyanwu
- * **Approximating Inference-enabled Federated SPARQL Queries on Multiple Endpoints.** Yuji Yamagata and Naoki Fukuta.
- * **VKGBuilder - A Tool of Building and Exploring Vertical Knowledge Graphs.** Tong Ruan, Haofen Wang and Fanghuai Hu
- * **Using the Semantic Web for Author Disambiguation - are we there Yet?** Cornelia Hedeler, Bijan Parsia and Brigitte Mathiak
- * **SHEPHERD: A Shipping-Based Query Processor to Enhance SPARQL Endpoint Performance.** Maribel Acosta, Maria Esther Vidal, Fabian Flöck, Simon Castillo, Carlos Buil Aranda and Andreas Harth
- * **AgreementMakerLight 2.0: Towards Efficient Large-Scale Ontology Matching.** Daniel Faria, Catia Pesquita, Emanuel Santos, Isabel F. Cruz and Francisco Couto
- * **Extracting Architectural Patterns from Web data.** Ujwal Gadiraju, Ricardo Kawase and Stefan Dietze
- * **Xodx - A Node for the Distributed Semantic Social Network.** Natanael Arndt and Sebastian Tramp

- * **An Ontology Explorer for Biomimetics Database.** Kouji Kozaki and Riichiro Mizoguchi
- * **Semi-Automated Semantic Annotation of the Biomedical Literature.** Fabio Rinaldi
- * **Live SPARQL Auto-Completion.** Stephane Campinas

Wednesday, October

22

ROOM: SALA 1000A • 9.00-9.15**Announcements and LinkedUp competition Prize announcements****ROOM SALA 1000A • 9.15-10.15**

- **Industry Track Keynote: The Semantic Web in an Age of Open Data**
Sir Nigel Shadbolt, Chairman and Co-Founder of the UK's Open Data Institute and Professor University of Southampton UK
Chair: Axel Polleres

10.15-11.00 Break • Room: Palameeting**ROOM: SALA 1000A • 11.00-12.45****Session: User Interaction and Personalization**

Chair: Natasha Noy

- **Expass: Exploring Associations between Entities via Top-K Ontological Patterns and Facets (Best Research Paper nominee).**
Gong Cheng, Yanan Zhang and Yuzhong Qu
- **Expressive and Scalable Query-based Faceted Search over SPARQL Endpoints (Best Research Paper nominee).**
Sébastien Ferré
- **Querying Heterogeneous Personal Information On The Go.**
Danh Le Phuoc, Anh Le Tuan, Gregor Schiele and Manfred Hauswirth
- **The Web Browser Personalization with the**

Client Side Triplestore (Best In Use Paper nominee).

Hitoshi Uchida, Ralph Swick and Andrei Samba

- **Crowd Truth: Machine-Human Computation Framework for Harnessing Disagreement in Gathering Annotated Data (10 minute talk).**
Khalid Khamkham, Oana Inel, Tatiana Cristea, Arne Rutjes, Jelle van der Ploeg, Lora Aroyo, Robert-Jan Sips, Anca Dumitrache and Lukasz Romaszko

ROOM: SALA 300 • 11.00-12.45**Session: Linked Data and Data Quality**

Chair: Guus Schreiber

- **Discovery and Visual Analysis of Linked Data for Humans.**
Vedran Sabol, Gerwald Tschinkel, Eduardo Veas, Patrick Hoefler, Belgin Mutlu and Michael Granitzer
- **Col-Graph: Towards Writable and Scalable Linked Open Data.**
Luis-Daniel Ibáñez, Hala Skaf-Molli, Pascal Molli and Olivier Corby
- **Transferring Semantic Categories with Vertex Kernels: Recommendations with SemanticSVD++.**
Matthew Rowe
- **Detecting Errors in Numerical Linked Data using Cross-Checked Outlier Detection.**
Daniel Fleischhacker, Heiko Paulheim, Volha Bryl, Johanna Völker and Christian Bizer

- Noisy Type Assertion Detection in Semantic Datasets.
Man Zhu, Zhiqiang Gao and Zhibin Quan

ROOM: SALA 1000B • 11.00-12.45

Industry Track: Regular Talks

Chair: John Davies

- Deployment of Semantic Analysis to Call Center.
Takahiro Kawamura
- The Logic of Insurance: an Ontology-Centric Pricing Application.
Ludovic Langevine and Paul Bone
- Applying Semantic Web technologies in Product Information Management at NXP Semiconductors.
Parvathy Meenakshy and John Walker
- Linked Data Experience at Macmillan: Building Discovery Services for Scientific and Scholarly Content on top of a Semantic Data Model.
Tony Hammond and Michele Pasi
- HAVAS 18 Lab: A Knowledge Graph for Innovation in the Media Industry.
José Gutiérrez-Cuellar and Jose Manuel Gomez-Perez
- Deploying National Ontology Services: From ONKI to Finto.
Osma Suominen, Sini Pessala, Jouni Tuominen, Mikko Lappalainen, Susanna Nykyri, Henri Ylikotila, Matias Frosterus and Eero Hyvönen
- ePlanning: an Ontology-based System for

Building Individualized Education Plans for Students with Special Educational Needs.
Sofia Cramerotti, Marco Buccio, Giampiero Vaschetto, Luciano Serafini and Marco Rospocher

12.45-14.20 Lunch • Room: Palameeting

Mentoring Lunch • Room: Sala Stampa

The Mentoring Lunch at the International Semantic Web Conference brings together graduate students and early-career researchers with experienced researchers from both, industry, and academia, for a lively discussion and question-answering session on a variety of topics (publications, career choices, work/family balance, etc.). The mentors are all volunteers from the speakers, chairs, and other senior conference participants. The goal of this event, involving between 50 and 60 participants, is to provide guidance to junior researchers who may have doubts, concerns, or questions about their careers paths. Students have reported in previous editions to find these advices invaluable! If you wish to register, you can do it so at <http://iswc2014.semanticweb.org/mentoring-lunch>

ROOM: SALA 1000A • 14.20-15.20

Semantic Web Challenge

Chair: Sean Bechhofer and Andreas Harth

The Semantic Web Challenge, now in its 12th year, aims to demonstrate practical progress towards achieving the vision of the Semantic Web.

The competition, organised in three rounds, enables practitioners and scientists to showcase leading-edge real world applications of Semantic Web technology.

ROOM: SALA 300 • 14.20-15.20**Session: SPARQL Extensions**

Chair: Chiara Ghidini

- On the Semantics of SPARQL Queries with Optional Matching under Entailment Regimes.
Egor V. Kostylev and Bernardo Cuenca Grau
- Strategies for Executing Federated Queries in SPARQL1.1.
Carlos Buil-Aranda, Axel Polleres and Jürgen Umbrich
- Toward the Web of Functions: Interoperable High-Order Functions in SPARQL.
Maurizio Atzori

ROOM: SALA 1000B • 14.20-15.20**Industry Track: First Pechakucha Session**

Chair: Chris Welty

- Ontology-Based Linking of Social, Open, and Enterprise Data for Business Intelligence.
Tope Omitola, John Davies, Alistair Duke, Hugh Glaser and Nigel Shadbolt
- The W3C Social Web Initiative.
Harry Halpin
- Smart Media Navigator: Visualizing Recommendations based on Linked Data.

Tabea Tietz, Jörg Waitelonis, Joscha Jäger and Harald Sack

- Smart Data Access: Semantic Web Technologies for Energy Diagnostics.
Ulli Waltinger
- Semantic Technology for Oil and Gas Business.
Nico Lavarini and Silvia Melegari
- Semantic Web based Container Monitoring System for the Transportation Industry.
Pinar Gocebe, Oguz Dikenelli, Umut Kose and Juan F. Sequeda

15.20-15.40 Short Break • Room: Palameeting**ROOM: SALA 1000A • 15.40-17.00****Semantic Web Challenge**

Chair: Sean Bechhofer and Andreas Harth

ROOM: SALA 300 • 15.40-17.00**Session: Large-scale RDF Processing and Dataset Availability**

Chair: Jeff Heflin

- SYRql: A Dataflow Language for Large Scale Processing of RDF Data (Student Best Research Paper Nominee).
Fadi Maali, Padmashree Ravindra, Kemafor Anyanwu and Stefan Decker
- Sempala: Interactive SPARQL Query Processing on Hadoop.
Alexander Schätzle, Martin Przyjaciel-Zablocki, Antony Neu and Georg Lausen

- **Querying Datasets on the Web with High Availability.**
Ruben Verborgh, Olaf Hartig, Ben De Meester, Gerald Haesendonck, Laurens De Vocht, Miel Vander Sande, Richard Cygan-iak, Pieter Colpaert, Erik Mannens and Rik Van de Walle
- **Diversified Stress Testing of RDF Data Management Systems.**
Gunes Aluc, Olaf Hartig, Tamer Ozsu and Khuzaima Daudjee

ROOM: SALA 1000B • 15.40 - 17.00

Industry Track: Second Pechakucha Session

Chair: Jose Manuel Gomez

- **Clinical Trial Data and Semantic Web standards.**
Kerstin Forsber
- **keyCRF: Using Semantic Metadata Registries to Populate an eCRF with EHR Data.**
Gokce Banu Laleci Erturkmen, Landen Bain and Ali Anil Sinac
- **RDF Implementation of Clinical Trial Data Standards.**
Frederik Malfait and Josephine Gough
- **Health and Environment Monitoring Service for Solitary Seniors.**
Kwangsoo Kim, Eunju Lee, Soonhyun Kwon, Dong-Hwan Park and Seong-Il Jin
- **Using Semantic Technologies to Mine Customer Insights in Telecom Industry.**
Rajaraman Kanagasabai, Anitha Veeramani,

Duy Ngan Le, Ghim-Eng Yap, James Decraene and Amy Shi-Nash

- **The Voice of the Customers for Digital Telcos.**
V. Richard Benjamins, David Cadenas, Pedro Alonso, Antonio Valderrabanos and Josu Gomez
- **SKOS as a Key Element in Enterprise Linked Data Strategies.**
Andreas Blumauer
- **iNowit, linked data as key element for innovation in emergency response.**
Bart van Leeuwen

ROOM: SALA 300 • 17.00-18.00

Town Hall

The ISWC conference series is organised by The Semantic Web Science Association (<http://swsa.semanticweb.org/>), a non-profit organisation. The Town Hall is an opportunity for participants to have their say with regard to this and future conferences and raise any points with the SWSA committee.

ROOM: SALA 1000B • 17.00-18.30

Industry Track: Third Pechakucha Session

Chair: Roberta Cuel and Axel Polleres

- **ReApp Store - a semantic AppStore for applications in the robotics domain**
Ana Sasa Bastinos, Peter Haase, Georg Hep- pner, Stefan Zander and Nadia Ahmed
- **Traffic Management using RTEC in OWL 2 RL**
Bernard Gorman, Jakub Marecek and Jia Yuan Yu

- **Efficient Application of Complex Graph Analytics on Very Large Real World RDF Datasets.**
Zhe Wu and Jay Banerjee
- **Integrating Semantic Web Technologies in the Architecture of BBC Knowledge and Learning Beta Online Pages.**
Dong Liu, Eleni Mikroyannidi and Robert Lee
- **SICRaS: a semantic big data platform for fighting tax evasion and supporting social policy making.**
Paolo Bouquet, Giovanni Adinolfi, Lorenzo Zeni and Stefano Bortoli
- **Semantic WISE: An Applying of Semantic IoT Platform for Weather Information Service Engine.**
Jun Wook Lee, Yong Woo Kim and Soonhyun Kwon

From 20.00 Banquet • Room: Palameeting

Thursday, October

23

ROOM: SALA 1000A • 9.00-9.15

- **Announcements**

ROOM: SALA 1000A • 9.15-10.15

- **Keynote: To be or to do?: The Semantics for Smart Cities and Communities**
Paolo Traverso, Director of the Center for Information Technology at Fondazione Bruno Kessler, Italy
Chair: Craig Knoblock

10.15-10.45 Break • Room: Palameeting**ROOM: SALA 1000A • 10.45-12.25****Session: Ontology Alignment and Modularization**

Chair: Jacco van Ossenbruggen

- **Detecting and Correcting Conservativity Principle Violations in Ontology-to-Ontology Mappings.**
Alessandro Solimando, Ernesto Jimenez-Ruiz and Giovanna Guerrini
- **Towards Annotating Potential Incoherencies in BioPortal Mappings.**
Daniel Faria, Ernesto Jimenez-Ruiz, Catia Pesquita, Emanuel Santos and Francisco Couto
- **An Uncertain Version of the OAEU Conference Benchmark.**
Michelle Cheatham and Pascal Hitzler
- **Fast Modularisation and Atomic Decomposition of Ontologies using Axiom Dependency Hypergraphs.**
Francisco Martin-Recuerda and Dirk Walther

- **A Study on the Atomic Decomposition of Ontologies.**
Matthew Horridge, Jonathan Mortensen, Bijan Parsia, Uli Sattler and Mark Musen

ROOM: SALA 300 • 10.45-12.25**Session: OBDA and Query Rewriting**

Chair: Mauro Dragoni

- **OBDA: Query Rewriting or Materialization? In Practice, Both! (Student Best Research Paper Nominee).**
Juan F. Sequeda, Marcelo Arenas and Daniel P. Miranker
- **Answering SPARQL Queries under the OWL 2 QL Entailment Regime.**
Roman Kontchakov, Martin Rezk, Mariano Rodriguez-Muro, Guohui Xiao and Michael Zakharyashev
- **kyrie2: Query Rewriting under Extensional Constraints in ELHIO.**
Jose Mora, Riccardo Rosati and Oscar Corcho
- **Schema-Agnostic Query Rewriting in SPARQL 1.1.**
Stefan Bischof, Markus Krötzsch, Axel Polleres and Sebastian Rudolph
- **How Semantic Technologies can Enhance Data Access at Siemens Energy.**
Evgeny Kharlamov, Nina Solomakhina, Özgür Lütfü Özcep, Dmitriy Zheleznyakov, Thomas Hubauer, Steffen Lamparter, Mikhail Roshchin, Ahmet Soyulu and Stuart Watson

ROOM: SALA 1000B • 10.45-12.25

Lightning Talks

Chair: Alasdair Gray

Our lightning talk session gives participants the opportunity to give a short presentation on anything related to the conference: late breaking research, a position statement, an announcement of some new software or dataset or maybe a reaction to a presentation at the meeting. Lightning talks will last FIVE minutes. They can be submitted right up to 08.30am on Thursday. Submission is through EasyChair <https://easychair.org/conferences/?conf=iswc2014lightningtalk>.

This is a popular session with a limited number of slots. Submit early to avoid disappointment. You can submit more than one talk but in the event of over-subscription we reserve the right to make you pick one.

12.25-14.00 Lunch • Room: Palameeting
ISWC 2015 (Invitation only)
Room: Sala Presidenza

ROOM: SALA 1000A • 14.00-15.20

Session: Linked Data

Chair: Miriam Fernandez

- **LOD Laundromat: A Uniform Way of Publishing Other People's Dirty Data (10 minutes talk).**

Wouter Beek, Laurens Rietveld, Hamidreza Bazoubandi, Jan Wielemaker and Stefan Schlobach

- **Dutch Ships and Sailors Linked Data Cloud (10 minutes talk).**
Victor de Boer, Jur Leinenga, Matthias van Rossum and Rik Hoekstra
- **Adoption of Linked Data Best Practices in Different Topical Domains.**
Max Schmachtenberg, Christian Bizer and Heiko Paulheim
- **Analyzing Schema.org.**
Peter F. Patel-Schneider
- **The WebDataCommons Microdata, RDFa and Microformat Dataset Series (10 minutes talk).**
Robert Meusel, Petar Petrovski and Christian Bizer
- **On Publishing Chinese Linked Open Schema (10 minutes talk).**
Haofen Wang, Tianxing Wu, Guilin Qi and Tong Ruan

ROOM: SALA 300 • 14.00-15.20

Session: Mobile Reasoning and SPARQL Updates

Chair: Abraham Bernstein

- **A Cross-Platform Benchmarking Framework for Mobile Semantic Web Reasoning Engines.**
William Van Woensel, Newres Al Haider, Ahmad Ahmad and Syed Sr Abidi
- **A Power Consumption Benchmark for Reasoners on Mobile Devices.**
Evan Patton and Deborah McGuinness

- Dynamic Provenance for SPARQL Updates.
Harry Halpin and James Cheney
- Updating RDFS ABoxes and TBoxes in SPARQL.
Albin Ahmeti, Diego Calvanese and Axel Polleres

15.20-15.40 Short Break • Room: Palameeting

ROOM: SALA 1000A • 15.40-16.40

Session: Social media

Chair: Lora Aroyo

- Semantic Patterns for Sentiment Analysis of Twitter.
Hassan Saif, Yulan He, Miriam Fernandez and Harith Alani
- Stretching the Life of Twitter Classifiers with Time-Stamped Semantic Graphs.
A. Elizabeth Cano, Yulan He and Harith Alani
- Linked Open Data Driven Game Generation.
Rob Warren and Erik Champion

ROOM: SALA 300 • 15.40-16.40

Session: Semantic Infrastructures and Streams

Chair: Tania Tudorache

- Semantic Web Application development with LITEQ.
Martin Leinberger, Stefan Scheglmann, Ralf Laemmel, Steffen Staab, Matthias Thimm and Evelyne Viegas

- Semantic-based Process Analysis.
Chiara Di Francescomarino, Francesco Corcoglioniti, Mauro Dragoni, Piergiorgio Bertoli, Roberto Tiella, Chiara Ghidini, Michele Nori and Marco Pistore
- Efficient RDF Interchange (ERI) Format for RDF Data Streams.
Javier D. Fernández, Alejandro Llaves and Oscar Corcho

ROOM: SALA 1000A • 16.40-17.10

Closing and Prize Announcements

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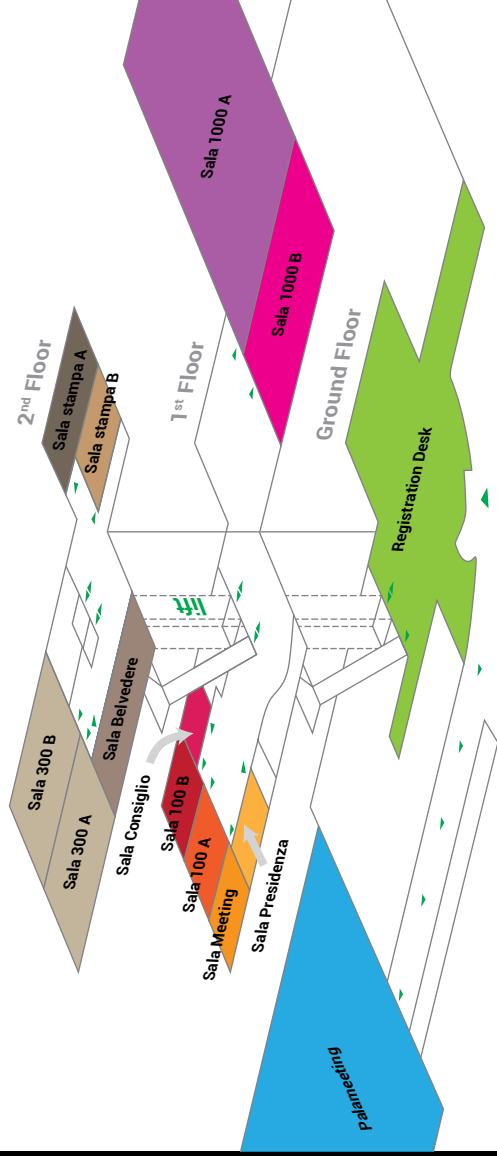
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