Welcome to ISWC 2017!

General Chair
Jeff Heflin
Why are we here?

Frequency of keywords across all tracks
Who are we?

• 624 Participants
  • 163 Students
  • 205 Academics
  • 150 Industry, government, etc.
  • 31 Workshop only
  • 75 Volunteers, OCs, workshop organizer, sponsors,..

• From 36 countries
Overview of the Program

• Workshops, Tutorial and Doctoral Consortium
  • Yesterday and the day before

• Four tracks – today through Wednesday
  • Research
  • Resources
  • In-Use
  • Journal

• Industry Track
  • Today only

Papers from these tracks are mixed together in thematic sessions.
Posters and Demos

• Minute madness
  • Very short advertisements for each poster/demo
  • Today 3:50pm in Lehar 1-3

• Posters and Demos Session
  • Tonight 6:30pm
  • WU Building LC
  • Don’t forget to vote
    • see e-mail from local organizers with your personal code
    • Oct 20 – Subject “ISWC 2017: Voting Instructions...”
Other special items of note

• Job Fair – today through Wednesday
  • Located in the coffee corner
  • Each employer has a 90 minute slot, see schedule online https://iswc2017.semanticweb.org/program/job-fair/
  • Typically three employers per slot

• Semantic Web Challenge
  • Posters and P&D session tonight
  • Presentations by best performers, Tuesday, 3:30pm in Stolz 2

• Lightning Talks
  • Wednesday, 3:30pm, Stolz 2
  • Two minute talks on late-breaking research, position statements, announcements, etc.
  • Send one slide to iswc.lightningtalks@gmail.com by tonight
Discuss papers live!

• See which sessions/papers are live at the moment:

  https://iswc2017.semanticweb.org/live/

• Discuss each paper directly in the comments

• or, if you tweet about a talk/paper, use the paper’s URL, e.g.

  https://iswc2017.semanticweb.org/paper-141/
Small erratum for the brochure...

- ... p. 31 lunch will obviously be here (outside the plenary room to the left)

... i.e. you don’t have to walk back to WU Mensa ;-)
Errata for the brochure... (2/2)

- ... afternoon coffee breaks on Tue and Wed start at **14:50!!!**

- We fixed all small issues we found on the Website... please report any problems you find on twitter
  - @iswc2017  #iswc2017
Research Track Chairs

Claudia d’Amato
University of Bari
Bari, Italy

Miriam Fernandez
Kmi, The Open University
Milton Keynes, UK
Research Track Submission Statistics

- Submissions: 197
- Accepted Papers: 44
- Acceptance Rate: 23%
## Submissions and Accepted Papers per Topic

<table>
<thead>
<tr>
<th>Topic</th>
<th>Accepted</th>
<th>Submissions</th>
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<tbody>
<tr>
<td>Database, information retrieval, information extraction, natural language processing and artificial</td>
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<td>Languages, tools, and methodologies for representing and managing semantics and data on the Web</td>
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<tr>
<td>Knowledge representation and reasoning on the Web</td>
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<td>Machine learning and data mining methods for the Semantic Web</td>
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<tr>
<td>Management of Semantic Web data and Linked Data</td>
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<tr>
<td>Search, query, integration, and analysis on the Semantic Web</td>
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<tr>
<td>Data mining and knowledge discovery in linked data and ontologies</td>
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<tr>
<td>Ontology-based data access and integration/exchange on the Web</td>
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<tr>
<td>Ontology modularity, mapping, merging, and alignment for the Web</td>
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<td>Ontology engineering and ontology patterns for the Web</td>
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<td>Cleaning, quality assurance, and provenance of Semantic Web data, services, and processes</td>
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<td>Information visualization and exploratory analysis methods for Semantic Web data</td>
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<td>Supporting multi-linguality in the Semantic Web</td>
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<td>Architectures and algorithms for extreme volume, heterogeneity, dynamicity, and decentralization of Data streams and the Internet of Things</td>
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<td>Robust and scalable management of semantics and data on the Web.</td>
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<td>Trust, privacy, and security on the Semantic Web</td>
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<tr>
<td>Access Control and Privacy in Semantic Data</td>
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<tr>
<td>Semantic social network mining, analysis, representation, and management</td>
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Research Track Reviewing Statistics

- 421 PC members
- 96 Additional reviewers
- Reviews: 954
- Reviews per paper: 4.97
- PC members free to sign reviews at the end of the process

<table>
<thead>
<tr>
<th>Reviews per paper</th>
<th>Number of papers</th>
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<tbody>
<tr>
<td>4</td>
<td>13</td>
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<tr>
<td>5</td>
<td>172</td>
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<td>6</td>
<td>7</td>
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</tbody>
</table>
23 Senior Program Committee Members
Best Reviewers

Rahul Parundekar
Jun Zhao
Valentina Ivanova
Gregoire Burel
Ziqi Zang
Bernardo Cuenca Gra
Paul Groth
Josiane Xavier Parreiva
Aidan Hogan
Maud Ehrmann
Adrian Brasoveanu
Best Research Paper Candidates

- Andrew Sutton and Reza Samavi “Blockchain Enabled Privacy Audit Logs”
- David Carral, Irina Dragoste and Markus Krötzsch “Tractable Query Answering for Expressive Ontologies and Existential Rules”
- Markus Krötzsch, Maximilian Marx, Ana Ozaki and Veronika Thost “Attributed Description Logics: Ontologies for Knowledge Graphs”
- Olaf Hartig, Ian Letter and Jorge Pérez “A Formal Framework for Comparing Linked Data Fragments”
Best Student Paper Candidates

● Andrew Sutton and Reza Samavi “Blockchain Enabled Privacy Audit Logs”
● Stephan Baier, Volker Tresp and Yunpu Ma “Improving Visual Relationship Detection using Semantic Modeling of Scene Descriptions”
● Thomas Pellissier Tanon, Daria Stepanova, Simon Razniewski, Paramita Mirza and Gerhard Weikum “Completeness-aware Rule Learning from Knowledge Graphs”
Spotlight Papers

- Olivier Corby, Catherine Faron-Zucker and Fabien Gandon "LDScript: a Linked Data Script Language"
- Tobias Grubenmann, Abraham Bernstein, Dmitry Moor and Sven Seuken "Challenges of source selection in the WoD"
Resources Track Chairs

Valentina Tamma
University of Liverpool
Liverpool, UK

Freddy Lecue
Accenture/INRIA
Dublin, Ireland / Sophia Antipolis, France
Resources track statistics

- 76 submissions received, **23 accepted**
- 8 SPC members (NEW!)
- 64 reviewers
- All papers received at least 4 reviews and a meta review
- A total of 313 reviews!
Resources track statistics

• Range of topics
  • (LD) Datasets
  • Software tools
  • Ontologies
  • Metrics...

• Some thought provoking contributions
Best Paper Candidates

• **Maribel Acosta, Maria Esther Vidal and York Sure-Vetter:**
  Diefficiency Metrics: Measuring the Continuous Efficiency of Query Processing Approaches

• **Silvio Peroni, David Shotton and Fabio Vitali:**
  One year of the OpenCitations Corpus - Releasing RDF-based scholarly citation data into the Public Domain

• **Daniel Garijo:**
  WIDOCO: A Wizard for Documenting Ontologies
Student Best Paper Candidates

• Priyansh Trivedi, Gaurav Maheshwari, Mohnish Dubey and Jens Lehmann: A corpus for complex question answering over knowledge graph

• Maulik Kamdar, Simon Walk, Tania Tudorache and Mark Musen: BiOnIC: A Catalog of User Interactions with Biomedical Ontologies

• Sebastián Ferrada, Benjamin Bustos and Aidan Hogan: IMGpedia: a Linked Dataset with Content-based Analysis from the Wikimedia Commons Images
Best Reviewers

• We acknowledge those reviewers who went above and beyond:
  • Jorge Gracia
  • Aidan Hogan
  • Steffen Lohman
  • Maria Navas Loro
  • Stian Soiland Reyes
  • Edna Ruchkaus
  • Michele Ruta
In-Use Track Chairs

Philipp Cudré-Maurouxe
University of Fribourg
Fribourg, Switzerland

Juan Sequeda
Capsenta
Austin, TX, USA
In Use Track

• 37 Reviewers
  • Mix of Industry with academic background and Academics with industry background
• 27 papers submitted
• 9 accepted papers = 33% acceptance rate
• All papers had at least 4 reviews.
  • 5 papers had 5 reviews
Best In Use Reviewers

• Irene Celino – CEFRIEL
• Stefan Dietze - L3S Research Center
• Prateek Jain – BlackRock
• Vanessa Lopez - IBM Research
• Héctor Pérez-Urbina – Google
• Raghava Mutharaju - GE Global Research
• Dezhao Song - Thomson Reuters
In Use Best Paper Nominations

• Semantic Rule-Based Equipment Diagnostic
  • Gulnar Mehdi, Evgeny Kharlamov, Ognjen Savkovic, Guohui Xiao, Elem Guzel Kalayci, Sebastian Brandt, Ian Horrocks, Mikhail Roshchin and Thomas Runkler
  • Monday Oct 23 - Morning
  • Reasoning I

• Realizing an RDF-based Information Model for a Manufacturing Company – A Case Study
  • Niklas Petersen, Lavdim Halilaj, Irlán Grangel-González, Steffen Lohmann, Christoph Lange and Sören Auer
  • Wednesday Oct 25 – After lunch
  • Federation
Postard raffle!

We’ll have a postcard raffle…

… among those who bring us a postcard with a stamp!

Send your postcard to Vienna and win a cake! #iswc2016 #iswc2017
A word from

Semantic Web Science Association
SWSA Activities

• Diversity and inclusion policy; see:
  • http://swsa.semanticweb.org/content/code-conduct-iswc

• Town Hall meeting Tuesday @17:00-18:00 in Stolz 1
  • your chance to give us feedback;
  • and make suggestions for the next conference.

• Awards
  • SWSA Distinguished Dissertation Award
  • SWSA Ten-year award
SWSA Distinguished Dissertation Award

- Recognizes theses that present innovative research results related to the combination of semantics, data and the Web
  - Thesis awarded between January 1, 2016 and December 31, 2016

- Winning theses receive
  - a certificate
  - an award of €1000
  - travel costs and a free registration to ISWC

- IOS Press will also invite the winner to publish the dissertation as a book in the “Studies on the Semantic Web” series

iswc2017.semanticweb.org
SWSA Distinguished Dissertation Award

Ilaria Tiddi: Explaining Data Patterns using Knowledge from the Web of Data

Mayank Kejriwal: Populating a Linked Data Entity Name System
SWSA Ten-year award

• “Recognizes the highest impact paper(s) from the ISWC proceedings ten years prior”, i.e., 2007 (Busan, Korea)

• Winning paper(s) receive
  • a certificate for each author
  • an award of $1000
SWSA Ten-year award

Sören Auer, Christian Bizer, Georgi Kobilarov, Jens Lehmann, Richard Cyganiak, Zachary G. Ives

DBpedia: A Nucleus for a Web of Open Data
DBpedia: A Nucleus for a Web of Open Data

Sören Auer, Christian Bizer, Georgi Kobilarov, Jens Lehmann, Richard Cyganiak, Zachary Ives
Lots of Thanks
to the DBpedia Community!
DBpedia in 2007

- December 2006: ESWC - Wikipedia Infobox extraction
- February 2007: First DBpedia Release
  - 1.9 million things, 25 million triples
- April 2007: DBpedia talk at WWW 2007 Banff
- November 2007: DBpedia paper at ISWC 2007 Busan
- Interlinking started: 440 000 RDF links
- Early Applications: Querying and Exploration
DBpedia in 2010

- Mappings Wiki
  - Infobox mappings for 49 languages
  - Contributions by 300 editors

- Internationalization
  - Over 20 language chapters worldwide

- DBpedia Spotlight
  - Outreach to NLP community

- DBpedia Release 3.5
  - 3.4 million things, 1 billion triples
DBpedia in 2017

- **Community Meetings Worldwide**
  - California, Amsterdam, Galway, Poznan
  - The Hague, Dublin, Leipzig
  - 50 - 150 participants

- **Non-profit DBpedia Association to**
  - Moderate DBpedia community
  - Contribute to core technologies and data
  - Improve interaction with users and industry

- **Bi-annual DBpedia Releases**
  - 6.6 million things, 14 billion triples
  - 7 million API hits per day
  - 50k downloads per month
Impact of the Idea behind DBpedia

Extract structured data from Wikipedia.
Impact of the Pattern behind DBpedia

Shield users from data extraction and cleansing effort.

- **Effort Distribution**
  - Content creation: Wikipedia editors community
  - Extraction and cleansing: DBpedia community
  - Users “only” need to employ the knowledge for their specific tasks

- **Pattern proved successful for**
  - DBpedia (public knowledge graph)
  - Google Knowledge Graph, Bing Knowledge Graph (private knowledge graphs)
  - Semantic Web as a whole?
Future: A Knowledge Graph for Research?

- Can we learn from DBpedia for our own work?
- Scholarly communication has not changed much in the last 500 years (now PDFs instead of real papers)
- As we now use knowledge graphs to represent encyclopaedic knowledge we might want to try them for representing and exchanging scientific knowledge
- Challenges are ambiguity, evolution, discourse
- A number of approaches in this direction exist, but more work needs to be done
Special Thanks

Research Projects

DBpedia Association Members