Proceedings of the Posters and Demos Track at the 11th International Conference on Semantic Systems

16th – 17th of September 2015
Vienna, Austria

Editors
Agata Filipowska, Poznan University of Economics
Ruben Verborgh, Ghent University - iMinds - Multimedia Lab
Axel Polleres, Vienna University of Economy and Business (WU), Austria

Preface

This volume contains the proceedings of the Posters and Demos Track at the 11th International Conference on Semantic Systems (SEMANTiCS 2015). SEMANTiCS is the annual meeting place for professionals who make semantic computing work, who understand its benefits and encounter its limitations. Every year, SEMANTiCS attracts information managers, IT-architects, software engineers and researchers from organisations ranging from research facilities, NPOs, through public administrations to the largest companies in the world.

SEMANTiCS offers a forum for the exchange of latest scientific results in semantic systems and complements these topics with new research challenges in the area of social software, semantic content engineering, logic programming and Semantic Web technologies. The conference is in its 11th year and has developed into an internationally visible and professional academic event.

Attendees learn from industry experts and top researchers about emerging trends and topics in the fields of semantic software, enterprise data, linked data & open data strategies, methodologies in knowledge modelling and text & data analytics. The SEMANTiCS community is highly diverse; attendees have responsibilities in interlinking areas like knowledge management, technical documentation, e-commerce, big data analytics, enterprise search, document management, business intelligence and enterprise vocabulary management.

The Posters & Demonstrations Track invited innovative work in progress, late-breaking research and innovation results, and smaller contributions in all fields related to the broadly understood Semantic Web and Semantic Technologies. The informal setting of the Posters & Demonstrations Track shall encourage participants to present innovations to the research community, business users and find new partners or clients. In addition to the business stream, SEMANTiCS 2015 welcomes developer-oriented posters and demos to the new technical stream.

A total of 33 submissions were accepted to this track (acceptance rate of 47%), comprising of 18 regular submissions, 11 resubmissions from the main track and 4 refereed submissions from the 1st Workshop on Data Science: Methods, Technology and Applications (DSci15) organised by Bernhard Haslhofer (AIT), Rainer Stütz (AIT), Ingo Feinerer (FH Wiener Neustadt) and Elena Simperl (Univ. Southampton).

The six submissions from the Posters and Demo Track with the highest quality (based on reviews received) have been included into the ACM Proceedings of the Research and Innovation Track, the abstracts of these as well as the other accepted submissions are included in the present volume.

Many thanks also go to all authors who submitted papers and of course to the program committee which provided careful reviews in a quick turnaround time.

Special thanks go to Sebastian Hellmann (AKSW/NLP2RDF, Universität Leipzig) and Josiane Xavier Parreira (Siemens AG Austria), who organised the Research and Innovation Track, to Christian Dirschl (Wolters Kluwer Deutschland), Erwin Folmer (TNO Information and Communication Technology) and Bernhard Pflugfelder (AutoVision GmbH) as well as to Anna Fensel (Semantic Technology Institute (STI) Innsbruck) - the General Workshop Chair.

We also would like to thank Thomas Thurner, Martin Kaltenböck und Andreas Blumauer from the Semantic Web Company for providing the organizational infrastructure and taking care of all the local operational tasks. Special thanks also go to Tassilo Pellegrini from the University of Applied Sciences St. Pölten and his team of helping hands for supporting the overall organizational process and taking care of all media related activities. Additionally we would also like to thank all our partners - which are too many to list them here - for supporting this year's conference and turn it into a success.

We would also like to thank our sponsors:
Gold: GeoKnow EU Project, EBCONT enterprise technologies GmbH, Vienna Business Agency, MarkLogic and PoolParty (Semantic Web Company GmbH)
Silver: Open Data Incubator Europe (ODINE) EU Project, Social Sentiment IndeX (SIXX) EU Project, MixedEmotions EU Project, Institute for Applied Informatics (InfAI), STI Innsbruck, Big Data Europe
Bronze: Semiodesk, Byte EU Project, Semagrow EU Project, Aligned EU Project, Compass Gruppe

We hope that SEMANTiCS 2015 will provide you with new inspirations for your research and with opportunities for partnerships with other research groups and industrial participants.

Sincerely yours,

Agata Filipowska, Ruben Verborgh, Axel Polleres
Vienna, September 2015

Chairs & Program Committee of SEMANTICS 2015

Conference Chair

- Axel Polleres, Vienna University of Economy and Business (WU), Austria
- Tassilo Pellegrini, University of Applied Sciences St. Pölten, Austria

Research & Innovation Chair

- Sebastian Hellmann, AKSW/NLP2RDF, Universität Leipzig, Germany
- Josiane Xavier Parreira, Siemens AG Austria, Austria

Industry & Use Case Chair

- Christian Dirschl, Wolters Kluwer Germany
- Erwin Folmer, TNO Information and Communication Technology, Netherlands

Poster & Demo Track Chair

- Agata Filipowska, Poznan University of Economics, Poland
- Ruben Verborgh, iMinds, Ghent University, Belgium

Workshop and Satellite Events Chair

- Anna Fensel, Semantic Technology Institute (STI) Innsbruck, Austria

Publicity Chair

- Martin Kaltenböck, Semantic Web Company, Austria
- Brigitte Lutz, Office of the CIO of City of Vienna, ADV, Austria
- Axel Ngonga, InfAI, AKSW, Universität Leipzig

Local Chair

- Jürgen Umbrich, Vienna University of Economy and Business (WU), Austria
- Gerhard Wohlgenannt, Vienna University of Economy and Business (WU), Austria

Permanent Advisory Board

- Sören Auer, Fraunhofer Institute for Intelligent Analysis and Information Systems, University of Bonn, Germany
- Andreas Blumauer, Semantic Web Company, Austria
- Christian Dirschl, Wolter Kluwer Germany
- Anna Fensel, Semantic Technology Institute (STI) Innsbruck, Austria
- Dieter Fensel, Semantic Technology Institute (STI) Innsbruck, Austria
- Bernhard Haslhofer, Austrian Institute of Technology, Austria
- Mike Heininger, GfWM - Austria, wissen.io
- Michael Dekner, GfWM - Austria
- Dieter Weitz, GfWM - Austria, wissensentwicklung.at
- Sebastian Hellmann, AKSW/NLP2RDF, University of Leipzig, Germany
- Martin Kaltenböck, Semantic Web Company, Austria
- Tassilo Pellegrini, St. Pölten University of Applied Sciences, Austria
- Axel Polleres, Institute for Information Business of WU Wien, Austria
- Harald Sack, Hasso-Plattner-Institute at the University Potsdam, Germany

Programme Committee - Posters and Demos

- Nathalie Aussenac-Gilles, IRIT CNRS
- Andreas Blumauer, Semantic Web Company
- Volha Bryl, University of Mannheim
- Roberta Cuel, University of Trento
- Aba-Sah Dadzie, abasah.dadzie@yahoo.com
- Ben De Meester, Ghent University - iMinds - MMLab
- Marin Dimitrov, Ontotext
- Anna Fensel, Semantic Technology Institute (STI) Innsbruck, University of Innsbruck
- Wolfgang Gassler, University of Innsbruck, Insitute of Computer Science, Research Group Databases and Information Systems
- Alain Giboin, INRIA Sophia Antipolis - Méditerranée
- Pieter Heyvaert, Multimedia Lab, Ghent University - iMinds
- Anja Jentzsch, Hasso Plattner Institut
- Efstratios Kontopoulos, CERTH-ITI
- Christoph Lange, University of Bonn
- Agnieszka Lawrynowicz, Poznan University of Technology
- Steffen Lohmann, University of Stuttgart
- Sandra Lovrenčić, University of Zagreb, Faculty of organization and informatics Varazdin, Pavlinska 2, HR-42000 Varazdin, Croatia
- Michael Luggen, University of Fribourg
- Jacek Malyszko, Poznan University of Economics, Departament of Information Systems
- Lyndon Nixon, MODUL University
- Andrea Giovanni Nuzzolese, STLab, ISTC-CNR
- Leo Obrst, MITRE
- Bartosz Perkowski, Department of Information Systems
- Eugen Ruppert, TU Darmstadt - FG Language Technology
- Harald Sack, Hasso-Plattner-Institute for IT Systems Engineering, University of Potsdam
- Muhammad Saleem, AKSW, University Of Leizpig
- Bernhard Schandl, mySugr GmbH
- Nadine Steinmetz, Hasso Plattner Institute for Software Systems Engineering
- Holger Stenzhorn, Saarland University Hospital
- Mari Carmen Suárez-Figueroa, Universidad Politécnica de Madrid
- Joachim Van Herwegen, MMLab - UGent - iMinds
- Maria Esther Vidal, Universidad Simon Bolivar, Dept. Computer Science
- Boris Villazón-Terrazas, iSOCO, Intelligent Software Components
- Krzysztof Wecel, Poznan University of Economics
- Eva Zangerle, Databases and Information Systems, Department of Computer Science, University of Innsbruck

Additional Reviewers

- Nuria García-Santa, iSOCO, Intelligent Software Components
- Magnus Knuth, Hasso-Plattner-Institute for IT Systems Engineering, University of Potsdam
- Dinesh Reddy, Hasso-Plattner-Institute for IT Systems Engineering, University of Potsdam
- Joerg Waitelonis, Hasso-Plattner-Institute for IT Systems Engineering, University of Potsdam

Table of Contents

Part I. Posters and Demos Track of SEMANTiCS 2015

Andre Valdestilhas, AKSW, University of Leipzig, Natanael Arndt, AKSW, University of Leipzig and Dimitris Kontokostas, AKSW, University of Leipzig, ***DBpediaSameAs: an Approach to Tackle Heterogeneity in DBpedia Identifiers*** 1

Lukas Sikorski, Fraunhofer FKIE, Michael Dembach, Fraunhofer FKIE, and Rudolf Ruland, Fraunhofer FIT, ***EnArgus – Ontology Based Search*** 5

Georg Neubauer, University of Applied Sciences St. Pölten and Tassilo Pellegrini, University of Applied Sciences St. Pölten, ***Linked Data Utilization along the Content Value Chain – Observations and Implications*** 8

Willy Chen, Softplant GmbH and Julian Lambertz, Softplant GmbH, ***Living Semantic Platform*** 12

Fajar J. Ekaputra, Vienna University of Technology, Estefania Serral, KU Leuven, Dept. of Decision Sciences and Information, Management, Marta Sabou, Vienna University of Technology and Stefan Biffl, Vienna University of Technology, ***Knowledge Change Management and Analysis for Multi-Disciplinary Engineering Environments*** 13

Michael Färber, Institute AIFB, Karlsruhe Institute of Technology (KIT) and Achim Rettinger, Institute AIFB, Karlsruhe Institute of Technology (KIT), ***A Statistical Comparison of Current Knowledge Bases*** 18

Peter Schüller, Computer Engineering Department, Faculty of Engineering, Marmara University and Mishal Kazmi, Faculty of Engineering and Natural Science, Sabanci University, ***Using Semantic Web Resources for Solving Winograd Schemas: Sculptures, Shelves, Envy, and Success*** 22

Dana Tomic, FTW, Wilfred Woeber, Universität für Bodenkultur, Sandra Hoermann, FTW, Wolfgang Auer, MKW electronics GmbH and Domagoj Drenajnac, FTW, ***Enabling Semantic Web for Precision Agriculture: a Showcase of the Project agriOpenLink*** 26

Alex Olieman, University of Amsterdam, Jaap Kamps, University of Amsterdam and Rosa Merino Claros, University of Amsterdam, ***LocLinkVis: a Geographic Information Retrieval-Based System for Large-Scale Exploratory Search*** 30

Robert David, Institute of Software Technology and Interactive Systems, Vienna University of Technology, ***Semantic Content Description for the Visual Arts*** 34

Panagiotis-Marios Philippides, OKF Greece, Charalampos Bratsas, Mathematics Department, Aristotle University of Thessaloniki, OKF Greece, Evangelos Chondrokostas, Mathematics Department, Aristotle University of Thessaloniki, Dimitra Tsigkari, Mathematics Department, Aristotle University of Thessaloniki and Andreas Veglis, School of Journalism & Mass Communications, Aristotle University of Thessaloniki, ***Creating and Using Sports Linked Data: Analytics and Applications*** 38

Ondřej Zamazal, Department of Information and Knowledge Engineering, University of Economics, Prague, ***Online Ontology Shortest Paths Searcher*** 42

Djebali Sonia, De Vinci Technology Lab - ESILV and Thomas Raimbault, De Vinci Technology Lab – ESILV, ***SimplePARQL: a New Approach Using Keywords Over SPARQL to Query the Web of Data*** 43

Vojtěch Svátek, University of Economics, Prague, Patrik Kompuš, Czech Technical University in Prague, Marek Dudas, University of Economics, Prague, Martin Nečaský, Charles University and Jakub Klimek, Czech Technical University in Prague, ***Procurement Notice Enrichment Using Product Ontologies*** 44

Miel Vander Sande, Ghent University - iMinds - Multimedia Lab, Ruben Verborgh, Ghent University - iMinds - Multimedia Lab, Erik Mannens, Ghent University - iMinds - Multimedia Lab and Rik Van de Walle, Ghent University - iMinds - Multimedia Lab, ***Updating SPARQL Results in Real-time with Client-side Fragment Patching*** 45

Javier D. Fernández, Vienna University of Economics and Business, Patrik Schneider, Vienna University of Economics and Business and Jürgen Umbrich, Vienna University of Economics and Business, ***The DBpedia Wayback Machine*** 46

Barbara Kapourani, Critical Publics, Eleni Fotopoulou, Ubitech, Anastasios Zafeiropoulos, Ubitech, Dimitris Papaspyros, National Technical University of Athens, DSS Lab, Spyros Mouzakitis, National Technical University of Athens, DSS Lab and Sotiris Koussouris, National Technical University of Athens, DSS Lab, ***Linked Data Analytics for Business Intelligence SMEs: a Pilot Case in the Pharmaceutical Sector*** 47

Dominik Filipiak, Department of Information Systems, Poznan University of Economics, Krzysztof Węcel, Department of Information Systems, Poznan University of Economics and Agata Filipowska, Department of Information Systems, Poznan University of Economics, ***Semantic Annotation to Support Description of the Art Market*** 51

Alex Olieman, University of Amsterdam, Jaap Kamps, University of Amsterdam, Maarten Marx, University of Amsterdam and Arjan Nusselder, University of Amsterdam, ***A Hybrid Approach to Domain-Specific Entity Linking*** 55

Kristina Sahlmann, HTW Berlin, University of Applied Sciences and Thomas Schwotzer, HTW Berlin, University of Applied Sciences, ***MOCAP: Towards the Semantic Web of Things*** 59

Simon Steyskal, Vienna University of Economics and Business and Sabrina Kirrane, Vienna University of Economics and Business, ***If You Can't Enforce It, Contract It: Enforceability in Policy-Driven (Linked) Data Markets*** 63

Ivan Ermilov, University of Leipzig, Institute of Computer Science, AKSW Group, Konrad Hoeffner, University of Leipzig, Institute of Computer Science, AKSW Group, Jens Lehmann, University of Leipzig, Institute of Computer Science, AKSW Group and Dmitry Mouromtsev, ITMO University, ***kOre: Using Linked Data for OpenScience Information Integration*** 67

Fabio Marfia, Politecnico di Milano, DEIB - Department of Information, Electronics and Bioengineering, Mario Arrigoni Neri, University of Bergamo, Department of Computer, Engineering and Mathematical, Methods, Marco Colombetti, Politecnico di Milano, DEIB - Department of Information, Electronics and Bioengineering and Filippo Pellegrini, Politecnico di Milano, DEIB - Department of Information, Electronics and Bioengineering, ***On the Use of OWL Reasoning for Evaluating Access Control Policies*** 71

Elias Kärle, Semantic Technology Institute (STI) Innsbruck, Anna Fensel, Semantic Technology Institute (STI) Innsbruck, Ioan Toma, Semantic Technology Institute (STI); UMIT - University for Health Sciences, Medical Informatics and Technology, Innsbruck and Dieter Fensel, Semantic Technology Institute (STI) Innsbruck, ***Schema.org Usage for Hotels: an Analysis Based on the Web Data Commons Data Set*** 75

Svetla Koeva, DCL, ***Paraphrasing of Synonyms for a Fine-grained Data Representation*** 79

Veronika Thost, Institute for Theoretical Computer Science, Technische Universität Dresden and Erik Zenker, Institute for Theoretical Computer Science, Technische Universität Dresden, ***Temporal Query Answering in a Fuzzy World*** 84

John P. Mccrae, Insight Centre for Data Analytics, National University of Ireland, Galway; Cognitive Interaction Technology, Cluster of Excellence, Bielefeld University and Philipp Cimiano, Cognitive Interaction Technology, Cluster of Excellence, Bielefeld University, ***Linghub: a Linked Data Based Portal Supporting the Discovery of Language Resources*** 88

Andreas Both, R&D, Unister GmbH, Matthias Wauer, R&D, Unister GmbH, Alejandra Garcia Rojas, Ontos A.G., Daniel Hladky, Ontos A.G. and Jens Lehmann, University of Leipzig, Institute of Computer Science, AKSW Group, ***The GeoKnow Generator Workbench - an Integrated Tool Supporting the Linked Data Lifecycle for Enterprise Usage*** 92

Claus Stadler, University of Leipzig, Institute of Computer Science, AKSW Group, Natanael Arndt, University of Leipzig, Institute of Computer Science, AKSW Group, Michael Martin, University of Leipzig, Institute of Computer Science, AKSW Group and Jens Lehmann, University of Leipzig, Institute of Computer Science, AKSW Group, ***RDF Editing on the Web*** 96

Part II. Papers from 1st Workshop on Data Science: Methods, Technology and Applications (DSci15)

Lisa Ehrlinger, Institute for Application Oriented Knowledge Processing, Johannes Kepler University Linz, Wolfram Wöß, Institute for Application Oriented Knowledge Processing, Johannes Kepler University Linz, ***Semi-Automatically Generated Hybrid Ontologies for Information Integration*** 100

Erich Heil, Institute for Advanced Studies, Dominik Walch, Institute for Advanced Studies, ***Analysis and Visualization of Austria's Social Insurance System*** 105

Maximilian Leodolter, AIT Austrian Institute of Technology GmbH, Christian Rudloff, AIT Austrian Institute of Technology GmbH, ***Learning Mobility Profiles: an Application to a Personalised Weather Warning System*** 110

Elaheh Momeni, University of Vienna, Peter Kalchgruber, University of Vienna, Daniela Ramsauer, University of Vienna, Reza Rawassizadeh, University of California, ***Leveraging Social Affect for Identifying Individual Mood*** 114