

Contents – Part II

In Use and Industrial Track

Applying Semantic Web Technologies to Assess Maintenance Tasks from Operational Interruptions: A Use-Case at Airbus	3
<i>Ghislain Auguste Atezing</i>	
Modeling Company Risk and Importance in Supply Graphs	18
<i>Lucas Carstens, Jochen L. Leidner, Krzysztof Szymanski, and Blake Howald</i>	
Declarative Data Transformations for Linked Data Generation: The Case of DBpedia	33
<i>Ben De Meester, Wouter Maroy, Anastasia Dimou, Ruben Verborgh, and Erik Mannens</i>	
BalOnSe: Temporal Aspects of Dance Movement and Its Ontological Representation	49
<i>Katerina El Raheb, Theofilos Mailis, Vladislav Ryzhikov, Nicolas Papapetrou, and Yannis Ioannidis</i>	
Reasoning on Engineering Knowledge: Applications and Desired Features . . .	65
<i>Constantin Hildebrandt, Matthias Glawe, Andreas W. Müller, and Alexander Fay</i>	
A Compressed, Inference-Enabled Encoding Scheme for RDF Stream Processing	79
<i>Jérémy Lhez, Xiangnan Ren, Badre Belabbess, and Olivier Curé</i>	
From Data to City Indicators: A Knowledge Graph for Supporting Automatic Generation of Dashboards.	94
<i>Henrique Santos, Victor Dantas, Vasco Furtado, Paulo Pinheiro, and Deborah L. McGuinness</i>	
Ontology-Driven Unified Governance in Software Engineering: The PoolParty Case Study	109
<i>Monika Solanki, Christian Mader, Helmut Nagy, Margot Mückstein, Mahek Hanfi, Robert David, and Andreas Koller</i>	
A Hypercat-Enabled Semantic Internet of Things Data Hub	125
<i>Ilias Tachmazidis, Sotiris Batsakis, John Davies, Alistair Duke, Mauro Vallati, Grigoris Antoniou, and Sandra Stincic Clarke</i>	

ArmaTweet: Detecting Events by Semantic Tweet Analysis	138
<i>Alberto Tonon, Philippe Cudré-Mauroux, Albert Blarer, Vincent Lenders, and Boris Motik</i>	
smartAPI: Towards a More Intelligent Network of Web APIs	154
<i>Amrapali Zaveri, Shima Dastgheib, Chunlei Wu, Trish Whetzel, Ruben Verborgh, Paul Avillach, Gabor Korodi, Raymond Terryn, Kathleen Jagodnik, Pedro Assis, and Michel Dumontier</i>	
PhD Symposium	
Automating the Dynamic Interactions of Self-governed Components in Distributed Architectures	173
<i>Sebastian R. Bader</i>	
Building and Processing a Knowledge-Graph for Legal Data	184
<i>Erwin Filtz</i>	
Ontology Matching Algorithms for Data Model Alignment in Big Data	195
<i>Ruth Achiaa Frimpong</i>	
Ontology-Based Data Access Mapping Generation Using Data, Schema, Query, and Mapping Knowledge.	205
<i>Pieter Heyvaert, Anastasia Dimou, Ruben Verborgh, and Erik Mannens</i>	
Engaging Librarians in the Process of Interlinking RDF Resources	216
<i>Lucy McKenna</i>	
A Knowledge-Based Framework for Improving Accessibility of Web Sites	226
<i>Jens Pelzetter</i>	
Iterative Approach for Information Extraction and Ontology Learning from Textual Aviation Safety Reports	236
<i>Lama Saeeda</i>	
Integrative Data Management for Reproducibility of Microscopy Experiments	246
<i>Sheeba Samuel</i>	
Towards an Open Extensible Framework for Empirical Benchmarking of Data Management Solutions: LITMUS	256
<i>Harsh Thakkar</i>	
Enhancing White-Box Machine Learning Processes by Incorporating Semantic Background Knowledge	267
<i>Gilles Vandewiele</i>	
Author Index	279

Contents – Part I

Semantic Data Management, Big Data, and Scalability Track

Traffic Analytics for Linked Data Publishers	3
<i>Luca Costabello, Pierre-Yves Vandenbussche, Gofran Shukair, Corine Deliot, and Neil Wilson</i>	
Explaining Graph Navigational Queries	19
<i>Valeria Fionda and Giuseppe Pirrò</i>	
A SPARQL Extension for Generating RDF from Heterogeneous Formats . . .	35
<i>Maxime Lefrançois, Antoine Zimmermann, and Noorani Bakerally</i>	

Linked Data Track

Exploiting Source-Object Networks to Resolve Object Conflicts in Linked Data	53
<i>Wenqiang Liu, Jun Liu, Haimeng Duan, Wei Hu, and Bifan Wei</i>	
Methods for Intrinsic Evaluation of Links in the Web of Data	68
<i>Cristina Sarasua, Steffen Staab, and Matthias Thimm</i>	
Entity Deduplication on ScholarlyData.	85
<i>Ziqi Zhang, Andrea Giovanni Nuzzolese, and Anna Lisa Gentile</i>	

Machine Learning Track

WOMBAT – A Generalization Approach for Automatic Link Discovery	103
<i>Mohamed Ahmed Sherif, Axel-Cyrille Ngonga Ngomo, and Jens Lehmann</i>	
Actively Learning to Rank Semantic Associations for Personalized Contextual Exploration of Knowledge Graphs.	120
<i>Federico Bianchi, Matteo Palmonari, Marco Cremaschi, and Elisabetta Fersini</i>	
Synthesizing Knowledge Graphs for Link and Type Prediction Benchmarking	136
<i>André Melo and Heiko Paulheim</i>	
Online Relation Alignment for Linked Datasets	152
<i>Maria Koutraki, Nicoleta Preda, and Dan Vodislav</i>	

Tuning Personalized PageRank for Semantics-Aware Recommendations Based on Linked Open Data.	169
<i>Cataldo Musto, Giovanni Semeraro, Marco de Gemmis, and Pasquale Lops</i>	
Terminological Cluster Trees for Disjointness Axiom Discovery	184
<i>Giuseppe Rizzo, Claudia d'Amato, Nicola Fanizzi, and Floriana Esposito</i>	
Embedding Learning for Declarative Memories.	202
<i>Volker Tresp, Yunpu Ma, Stephan Baier, and Yinchong Yang</i>	
Mobile Web, Sensors, and Semantic Streams Track	
Spatial Ontology-Mediated Query Answering over Mobility Streams.	219
<i>Thomas Eiter, Josiane Xavier Parreira, and Patrik Schneider</i>	
Optimizing the Performance of Concurrent RDF Stream Processing Queries	238
<i>Chan Le Van, Feng Gao, and Muhammad Intizar Ali</i>	
AGACY Monitoring: A Hybrid Model for Activity Recognition and Uncertainty Handling.	254
<i>Hela Sfar, Amel Bouzeghoub, Nathan Ramoly, and Jérôme Boudy</i>	
Natural Language Processing and Information Retrieval Track	
Mapping Natural Language to Description Logic	273
<i>Bikash Gyawali, Anastasia Shimorina, Claire Gardent, Samuel Cruz-Lara, and Mariem Mahfoudh</i>	
Harnessing Diversity in Crowds and Machines for Better NER Performance.	289
<i>Oana Inel and Lora Aroyo</i>	
All that Glitters Is Not Gold – Rule-Based Curation of Reference Datasets for Named Entity Recognition and Entity Linking.	305
<i>Kunal Jha, Michael Röder, and Axel-Cyrille Ngonga Ngomo</i>	
Semantic Annotation of Data Processing Pipelines in Scientific Publications	321
<i>Sepideh Mesbah, Kyriakos Fragkeskos, Christoph Lofi, Alessandro Bozzon, and Geert-Jan Houben</i>	

Combining Word and Entity Embeddings for Entity Linking	337
<i>Jose G. Moreno, Romaric Besançon, Romain Beaumont, Eva D'hondt, Anne-Laure Ligozat, Sophie Rosset, Xavier Tannier, and Brigitte Grau</i>	

Beyond Time: Dynamic Context-Aware Entity Recommendation	353
<i>Nam Khanh Tran, Tuan Tran, and Claudia Niederée</i>	

Vocabularies, Schemas, and Ontologies Track

Patterns for Heterogeneous TBox Mappings to Bridge Different Modelling Decisions	371
<i>Pablo Rubén Fillottrani and C. Maria Keet</i>	

Exploring Importance Measures for Summarizing RDF/S KBs	387
<i>Alexandros Pappas, Georgia Troullinou, Giannis Roussakis, Haridimos Kondylakis, and Dimitris Plexousakis</i>	

Data-Driven Joint Debugging of the DBpedia Mappings and Ontology: Towards Addressing the Causes Instead of the Symptoms of Data Quality in DBpedia	404
<i>Heiko Paulheim</i>	

Rule-Based OWL Modeling with ROWLTab Protégé Plugin	419
<i>Md. Kamruzzaman Sarker, Adila Krisnadhi, David Carral, and Pascal Hitzler</i>	

Chaudron: Extending DBpedia with Measurement.	434
<i>Julien Subercaze</i>	

SM4MQ: A Semantic Model for Multidimensional Queries	449
<i>Jovan Varga, Ekaterina Dobrokhotova, Oscar Romero, Torben Bach Pedersen, and Christian Thomsen</i>	

Using Insights from Psychology and Language to Improve How People Reason with Description Logics	465
<i>Paul Warren, Paul Mulholland, Trevor Collins, and Enrico Motta</i>	

Reasoning Track

Updating Wikipedia via DBpedia Mappings and SPARQL.	485
<i>Albin Ahmeti, Javier D. Fernández, Axel Polleres, and Vadim Savenkov</i>	

Learning Commonalities in RDF.	502
<i>Sara El Hassad, François Goasdoué, and Hélène Jaudoin</i>	

Lean Kernels in Description Logics	518
<i>Rafael Peñaloza, Carlos Mencía, Alexey Ignatiev, and Joao Marques-Silva</i>	

Social Web and Web Science Track

Linked Data Notifications: A Resource-Centric Communication Protocol	537
<i>Sarven Capadislí, Amy Guy, Christoph Lange, Sören Auer, Andrei Sambra, and Tim Berners-Lee</i>	
Crowdsourced Affinity: A Matter of Fact or Experience.	554
<i>Chun Lu, Milan Stankovic, Filip Radulovic, and Philippe Laublet</i>	
A Semantic Graph-Based Approach for Radicalisation Detection on Social Media	571
<i>Hassan Saif, Thomas Dickinson, Leon Kastler, Miriam Fernandez, and Harith Alani</i>	

Semantic Web and Transparency Track

Modeling and Querying Greek Legislation Using Semantic Web Technologies.	591
<i>Ilias Chalkidis, Charalampos Nikolaou, Panagiotis Soursos, and Manolis Koubarakis</i>	
Self-Enforcing Access Control for Encrypted RDF	607
<i>Javier D. Fernández, Sabrina Kirrane, Axel Polleres, and Simon Steyskal</i>	
Removing Barriers to Transparency: A Case Study on the Use of Semantic Technologies to Tackle Procurement Data Inconsistency	623
<i>Giuseppe Futia, Alessio Melandri, Antonio Vetrò, Federico Morando, and Juan Carlos De Martin</i>	
NdFluents: An Ontology for Annotated Statements with Inference Preservation	638
<i>José M. Giménez-García, Antoine Zimmermann, and Pierre Maret</i>	
Adopting Semantic Technologies for Effective Corporate Transparency	655
<i>Maria Mora-Rodriguez, Ghislain Auguste Atemezing, and Chris Preist</i>	
Author Index	671

The Semantic Web

14th International Conference, ESWC 2017, Portorož,
Slovenia, May 28 – June 1, 2017, Proceedings, Part II

Blomqvist, E.; Maynard, D.; Gangemi, A.; Hoekstra, R.;
Hitzler, P.; Hartig, O. (Eds.)

2017, XXX, 281 p. 70 illus., Softcover

ISBN: 978-3-319-58450-8