

Curriculum Vitae

Personal Details

Name	Dr. Johanna Völker
Date of birth	September 16, 1977
Nationality	German
Phone	+49 (0) 621 181 2661 (office)
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Education and Work Experience

since 09/2009	Postdoctoral researcher, Chair of Artificial Intelligence (Prof. Dr. Heiner Stuckenschmidt) at the Institute of Informatics, University of Mannheim, Germany
12/2008	PhD (Dr. rer. pol.), Faculty of Business Engineering at the University of Karlsruhe Dissertation: <i>Learning Expressive Ontologies</i> , Grade: 1.0 Referent: Prof. Dr. Rudi Studer Co-Referent: Prof. Dr. Heiner Stuckenschmidt
01/2004-08/2009	Research associate, Knowledge Management Group (Prof. Dr. Rudi Studer) at the Institute of Applied Informatics and Formal Description Methods (AIFB), University of Karlsruhe, Germany
09/2003	Diplom (Dipl.-Inform.), Faculty of Natural Sciences and Technology I, University of Saarbrücken Informatics and Computational Linguistics, Grade: 1.5 Diploma Thesis: <i>Wissensbasierte Annotation von Objektmodellen</i>
1999-2003	Student assistant at <i>Deutsches Forschungszentrum für Künstliche Intelligenz</i> (DFKI), Saarbrücken, Germany
10/1999	Vordiplom, Faculty of Natural Sciences and Technology I, University of Saarbrücken Informatics and Computational Linguistics, Grade: 1.0
06/1997	Abitur, Gymnasium Augustinianum, Greven Mathematics and French (primary subjects), Grade: 1.4

Projects

since 08/2011	SONET (<i>Ontologie-basierte Einstufung von Tierversuchsvorhaben</i>), project leader Development of a prototype for the assessment of proposals according to 2010/63/EU Project funded by the <i>Bundesinstitut für Risikobewertung</i> (BfR)
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- 01/2009-08/2009 NanOn (*Nanotechnology Ontology*), project leader
Methodology-based construction of a reference ontology for the nanotechnology domain
Project funded by *Leibniz-Gesellschaft* (LG)
- 03/2009-08/2009 Multipla (*Multi-Ontology Learning*), project leader
Development of a framework for multilingual and query-driven ontology learning
Project funded by *Deutsche Forschungsgemeinschaft* (DFG)
- 01/2007-08/2009 NeOn (*Networked Ontologies*)
Automatic acquisition of expressive axiomatizations for reasoning and data integration
Project funded by *European Commission* (IST-2005-027595)
- 01/2007-12/2007 Knowledge Web
Learning disjointness for evaluating the performance of ontology debugging techniques
Project funded by *European Commission* (FP6-507482)
- 01/2004-12/2006 SEKT (*Semantically Enabled Knowledge Technologies*)
Data-driven ontology evolution and automatic ontology evaluation by text mining and machine learning, development of a comprehensive ontology learning framework
Project funded by *European Commission* (IST-2003-506826)
- 1999-2003 SemIPort (*Semantic Information Portals*)
CAWICOMS (*Customer-Adaptive Web Interface for the Configuration of Products and Services with Multiple Suppliers*)
FLAG (*Flexible Language and Grammar Checker*)

Grants and Awards

- since 03/2010 *Margarete-von-Wrangell* Habilitation Scholarship of the European Social Fund (ESF) and the Ministry of Science, Research and the Arts Baden-Württemberg (MWK)
- 09/2008 *Best Paper Award*, International Conference on Knowledge Engineering and Knowledge Management (EKAW), Acitrezza, Italy, 2008

Administrative Activities

- since 03/2011 *Equal opportunity commissioner* of the Faculty of Business Informatics and Business Mathematics, Mannheim University, Germany

Teaching Experience

- HWS 2011 Lecture: Semantic Web Technologies (CS 660)
- 04/2011 Girls' Day Workshops: *Games with a Purpose* and *Sentiment Detection*
Johanna Völker, Cäcilia Zirn and Johannes Knopp
- FSS 2011 Lecture: Knowledge Management (CS 661)
- HWS 2010 Lecture: Semantic Web Technologies (CS 660)
- FSS 2010 Lecture: Knowledge Management (CS 661)
- HWS 2009 Lecture: Semantic Web Technologies (CS 660)
- WS 2007/2008 Tutorials: *Angewandte Informatik I*

SS 2006	Seminar: <i>Knowledge Discovery and Text Mining</i>
SS 2005	Tutorials: <i>Grundlagen der Informatik I</i>
WS 2004/2005	Tutorials: <i>Dynamische und Interoperable Systeme im Wissensmanagement</i>

Supervised Theses

since 01/2010	Doctoral thesis: Enriching Ontologies by Learned Negation (Daniel Fleischhacker)
09/2011	Diploma thesis: Automatic Generation of English Poems (Dieter Weilert)
01/2011	Diploma thesis: Wikipedia-based Analysis of Nominal Compounds (Yvonne Miklosch)
06/2010	Diploma thesis: Games for the Semantic Web (Thomas Markotschi)
05/2011	Bachelor thesis: Automatic Generation of Thesauri from Bibliographic Metadata (Jan Gansen)
05/2011	Bachelor thesis: Inductive Learning of Logical Negation (Paul Münstermann)
05/2010	Bachelor thesis: Mining Wikipedia for Complex Relations (Andreas Fleig)
10/2010	Seminar Paper: Computational Humor (Andreas Fleig)
02/2011	Seminar Paper: SPARQL (Gregor Trefs)

Conference Organization

10/2012	Program Chair of the International Conference on Knowledge Engineering and Knowledge Management (EKAW) 2012
06/2012	Chair of Natural Language Processing Track of the European Semantic Web Conference (ESWC) 2012
09/2010	Chair of Demo/Poster Session of the International Conference on Knowledge Engineering and Knowledge Management (EKAW) 2010

Program Committee Memberships

06/2012	International Joint Conference on Neural Networks (IJCNN) 2012
03/2012	Workshop on Linked Data in Linguistics (LDL) at the Annual Conference of the German Linguistic Society (DGfS) 2012
09/2011	International Conference on Semantic Systems (I-Semantics) 2011
08/2011	International Conference on Database and Expert Systems Applications (DEXA) 2011
06/2011	International Conference on Business Information Systems (BIS) 2011
06/2011	European Semantic Web Conference (ESWC) 2011 – Ontologies Track
06/2011	European Semantic Web Conference (ESWC) 2011 – Natural Language Processing Track
11/2010	Workshop on Uncertainty Reasoning for the Semantic Web (URSW) at ISWC 2010
11/2010	Workshop on the Evaluation of Semantic Technologies (IWEST) at ISWC 2010
09/2010	Research Track of the International Conference on Artificial Intelligence (AIMSA) 2010

09/2010	Workshop <i>Ontology Quality</i> at the International Conference on Knowledge Engineering and Knowledge Management (EKAW) 2010
08/2010	Research Track of the International Conference on Database and Expert Systems Applications (DEXA) 2010
05/2010	Doctoral Consortium of the European Semantic Web Conference (ESWC) 2010
05/2010	Demo/Poster Session at the European Semantic Web Conference (ESWC) 2010
11/2009	Research Track of the International Semantic Web Conference (ISWC)
11/2009	Workshop <i>Uncertainty Reasoning for the Semantic Web</i> (URSW), International Semantic Web Conference (ISWC)
10/2009	Research Track of the International Conference on Advances in Semantic Processing (SemAPro)
06/2009	Doctoral Consortium of the European Semantic Web Conference (ESWC)
06/2009	Demo/Poster Session of the European Semantic Web Conference (ESWC)
07/2008	Workshop <i>Ontology Learning and Population</i> (OLP), European Conference on Artificial Intelligence (ECAI)
05/2008	Workshop <i>OntoLex: The role of ontolox resources in building the infrastructure of Web 3.0</i> , International Conference on Language Resources and Evaluation (LREC)
11/2007	Workshop <i>OntoLex: From Text to Knowledge – The Lexicon/Ontology Interface</i> , International Semantic Web Conference (ISWC)

Reviewing for Journals

since 11/2011	IEEE Transaction on Learning Technologies
since 09/2011	Journal of Applied Ontology (JAO)
since 03/2011	Journal of Semantic Web and Information Systems (IJSWIS)
since 10/2010	IEEE Transactions on Services Computing
since 02/2010	Journal of Advances in Artificial Intelligence (AAI)
since 11/2009	Journal of Human Computer Interaction (IJHCS)
09/2009	Special issue on Incentives for Semantic Web Content Creation, Journal of Knowledge Engineering and Data Mining (IJKEDM)
since 03/2009	IEEE Transactions on Knowledge & Data Engineering
since 02/2009	Journal of Web Semantics (JWS)
since 11/2008	Journal of Data & Knowledge Engineering (DKE)
2007	Special issue on Ontologies in Text Technology, GLDV Journal for Computational Linguistics and Language Technology

Project Reviewing

10/2010	Reviewing of project proposals and jury membership of the 6th call FIT-IT Semantic Systems and Services – Future Internet of the FFG (Österreichische Forschungsförderungsgesellschaft mbH)
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Project Acquisition

- 01/2012 *GOLD (Generation of Ontologies from Linked Data)*
Deutsche Forschungsgemeinschaft (DFG), under preparation
Johanna Völker (principal investigator) and Jens Lehmann
- 10/2011 *ASKED (Automating Scientific Knowledge Exploration and Discovery)*
FP7-ICT-2011-C, objective ICT-2011.9.3 (FET Young Explorers), under preparation
Johanna Völker (principal investigator), Jens Lehmann, Axel Ngonga, Robert Höhndorf
- 08/2011 *Ontology-based classification of animal experiments*
Project funded by the Bundesinstitut für Risikobewertung (BfR)
Heiner Stuckenschmidt and Johanna Völker (principal investigator)
- 2010 *Linguistische Aspekte der Symbolischen Wissensrepräsentation*
Margarete-von-Wrangell Habilitation Scholarship of the European Social Fund (ESF)
and the Ministry of Science, Research and the Arts Baden-Württemberg (MWK)
Johanna Völker (principal investigator)

Talks

- 05/2010 Tutorial: *Natural Language Processing for the Semantic Web*
Diana Maynard and Johanna Völker
International Conference on Language Resources and Evaluation (LREC)
- 05/2009 Invited Talk: Methods and tools for semi-automatic ontology engineering
Semantic Days, Stavanger, Norway
- 11/2008 Tutorial: *Formal Concept Analysis for the Semantic Web*
Sebastian Rudolph and Johanna Völker
International Semantic Web Conference (ISWC)
- 10/2006 Tutorial: *Human Language Technology and Knowledge Acquisition for the Semantic Web*
Julien Nioche, Diana Maynard, Marta Sabou, Johanna Völker and Atanas Kiryakov
International Conference on Knowledge Engineering and Knowledge Management (EKAW)
- 06/2005 Tutorial: *Human Language Technology and Knowledge Acquisition for the Semantic Web*
Hamish Cunningham, Kalina Bontcheva, Marta Sabou, Johanna Völker
and Atanas Kiryakov
European Semantic Web Conference (ESWC)

Publications

- 2012 Johanna Völker and Jens Lehmann. *Perspectives of Ontology Learning*. AKA Verlag / IOS Press. (to appear)
- 2011 Pia Wojtinnik, Johanna Völker and Stephen Pulman. *Building Semantic Networks from Plain Text and Wikipedia with Application to Semantic Relatedness and Noun Compound Paraphrasing*. International Journal on Semantic Computing, 2011. (to appear)
- Johanna Völker and Mathias Niepert. *Statistical Schema Induction*. Proceedings of the 8th Extended Semantic Web Conference (ESWC), 6643, LNCS, Springer, 2011, 124-138.

Daniel Fleischhacker and Johanna Völker. *Inductive Learning of Disjointness Axioms*. Proceedings of the The 10th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE), LNCS, Springer, 2011.

Andreas Abecker, Stephan Grimm, Rudi Studer and Johanna Völker. *Ontologies and the Semantic Web*. Handbook of Semantic Web Technologies, Springer, 2011, ISBN 978-3-540-92912-3.

Stephan Bloehdorn, Sebastian Blohm, Philipp Cimiano, Eugenie Giesbrecht, Andreas Hotho, Uta Lösch, Alexander Mädche, Eddie Mönch, Philipp Sorg, Steffen Staab, Johanna Völker. *Combining Data-Driven and Semantic Approaches for Text Mining*. Foundations for the Web of Information and Services – A Review of 20 Years of Semantic Web Research, pp. 115-142, Springer, 2011.

2010 Philipp Cimiano, Johanna Völker, Paul Buitelaar. *Ontology Construction*. In Nitin Indurkha and Fred J. Damerau, Handbook on Natural Language Processing (2nd revised edition), Chapman & Hall / CRC, 2010. ISBN 9781420085921

Birte Glimm, Sebastian Rudolph and Johanna Völker. *Integrated Metamodeling and Diagnosis in OWL 2*. Proceedings of the 9th International Semantic Web Conference (ISWC), 6414, LNCS, Springer, 2010.

Thomas Markotschi and Johanna Völker. *GuessWhat?! – Human Intelligence for Mining Linked Data*. Proceedings of the Workshop on Knowledge Injection into and Extraction from Linked Data (KIELD) at the International Conference on Knowledge Engineering and Knowledge Management (EKAW), 2010.

Kai Eckert, Magnus Pfeffer and Johanna Völker. *Towards Interoperable Metadata Provenance*. Proceedings of the ISWC Workshop on Semantic Web for Provenance Management (SWPM), 2010.

Dominique Ritze, Johanna Völker, Christian Meilicke and Ondrej Svab-Zamazal. *Linguistic Analysis for Complex Ontology Matching*. Proceedings of the ISWC Workshop on Ontology Matching (OM), 2010.

2009 Philipp Cimiano, Alexander Mädche, Steffen Staab, Johanna Völker. *Ontology Learning*. In S. Staab and R. Studer, Handbook on Ontologies (2nd revised edition), Springer Series on Handbooks in Information Systems, pp. 245-267. Springer, 2009.

Johanna Völker. *Learning Expressive Ontologies*. No. 002 in Studies on the Semantic Web, AKA-Verlag / IOS Press, July 2009. ISBN 978-3-89838-621-0

Stephan Bloehdorn, Peter Haase, Zhisheng Huang, York Sure, Johanna Völker, Frank Harmelen, Rudi Studer. *Ontology Management*. In John Davies, Marko Grobelnik, Dunja Mladenic, Semantic Knowledge Management, cha. 2, pp. 3–20. Springer, 2009.

Robert Kern, Andreas Neus, Johanna Völker. *The Innovation Refrigerator: A methodology for keeping ideas fresh until the time is right.*, International Resesarch on Services Conference (RESER), 2009.

2008 Johanna Völker, Denny Vrandecic, York Sure, Andreas Hotho. *AEON – An Approach to the Automatic Evaluation of Ontologies*. Journal of Applied Ontology 3 (1-2), pp. 41-62, 2008.

Johanna Völker, Sebastian Rudolph. *Fostering Web Intelligence by Semi-automatic OWL Ontology Refinement*. In Proceedings of the 7th International Conference on Web Intelligence (WI). December 2008. (*regular paper*)

Christian Meilicke, Johanna Völker, Heiner Stuckenschmidt. *Learning Disjointness for Debugging Mappings between Lightweight Ontologies*. In Aldo Gangemi and Jerome Euzenat, Proceedings of the International Conference on Knowledge Engineering and Knowledge Management (EKAW), volume 5268 of LNAI, pp. 93-108. Springer, September 2008. (*Best Paper Award*)

Johanna Völker, Sebastian Rudolph. *Lexico-Logical Acquisition of OWL DL Axioms – An Integrated Approach to Ontology Refinement*. In Raoul Medina and Sergei Obiedkov, Proceedings of the 6th International Conference on Formal Concept Analysis (ICFCA), volume 4933 of LNCS, pp. 62-77. Springer, February 2008.

Johanna Völker, Peter Haase, Pascal Hitzler. *Learning Expressive Ontologies*. In Paul Buitelaar and Philipp Cimiano, Ontology Learning and Population: Bridging the Gap between Text and Knowledge volume 167 of Frontiers in Artificial Intelligence and Applications, pp. 45-69. IOS Press, Amsterdam, January 2008.

Guilin Qi, Peter Haase, Zhisheng Huang, Qiu Ji, Jeff Pan, Johanna Völker. *A Kernel Revision Operator for Terminologies*. In Amit P. Sheth, Steffen Staab, Mike Dean, Massimo Paolucci, Diana Maynard, Timothy W. Finin, Krishnaprasad Thirunarayan, Proceedings of the 7th International Semantic Web Conference (ISWC), pp. 419-434. Springer, October 2008.

Peter Haase, Johanna Völker. *Ontology Learning and Reasoning – Dealing with Uncertainty and Inconsistency*. In Paulo C. G. Costa, Claudia d’Amato, Nicola Fanizzi, Kathryn B. Laskey, Kenneth J. Laskey, Thomas Lukasiewicz, Matthias Nickles, Mike Pool, Uncertainty Reasoning for the Semantic Web I, volume 5327 of LNCS, pp. 366-384. Springer, 2008.

Johanna Völker, Sergi Fernandez Langa, York Sure. *Supporting the Construction of Spanish Legal Ontologies with Text2Onto*. In P. Casanovas, G. Sartor, N. Casellas and R. Rubino, Computable Models of the Law. Languages, Dialogues, Games, Ontologies, volume 4884 of LNAI, pp. 105-112. Springer, October 2008.

2007

Johanna Völker, Pascal Hitzler, Philipp Cimiano. *Acquisition of OWL DL Axioms from Lexical Resources*. In Enrico Franconi, Michael Kifer, Wolfgang May, Proceedings of the 4th European Semantic Web Conference (ESWC), volume 4519 of LNCS, pp. 670-685. Springer, June 2007.

Johanna Völker, Denny Vrandečić, York Sure, Andreas Hotho. *Learning Disjointness*. In Enrico Franconi, Michael Kifer, Wolfgang May, Proceedings of the 4th European Semantic Web Conference (ESWC), volume 4519 of LNCS, pp. 175-189. Springer, 2007.

Stephan Bloehdorn, Philipp Cimiano, Alistair Duke, Peter Haase, Jörg Heizmann, Ian Thurlow, Johanna Völker. *Ontology-based Question Answering for Digital Libraries*. In László Kovács and Norbert Fuhr and Carlo Meghini, Research and Advanced Technology for Digital Libraries – Proceedings of the 11th European Conference on Research and Advanced Technologies for Digital Libraries (ECDL 2007), Budapest, Hungary, September 16-21 2007, no. 4675 in LNCS, pp. 14–25. Springer, September 2007.

Sebastian Rudolph, [Johanna Völker](#), Pascal Hitzler. *Supporting Lexical Ontology Learning by Relational Exploration*. In Uta Priss, Simon Polovina, Richard Hill, Conceptual Structures: Knowledge Architectures for Smart Applications, Proceedings of the International Conference on Conceptual Structures (ICCS), volume 4604 of LNAI, pp. 488-491. Springer, Sheffield, UK, July 2007.

2006

Philipp Cimiano, [Johanna Völker](#), Rudi Studer. *Ontologies on Demand? – A Description of the State-of-the-Art, Applications, Challenges and Trends for Ontology Learning from Text*. Information, Wissenschaft und Praxis 57 (6-7): 315-320. October 2006.

Stephan Bloehdorn, Peter Haase, York Sure, [Johanna Völker](#). *Ontology Evolution*. In John Davies, Rudi Studer and Paul Warren, Semantic Web Technologies - Trends and Research in Ontology-based Systems, ch. 4, pp. 51-70. John Wiley & Sons, June 2006.

Denny Vrandečić, [Johanna Völker](#), Peter Haase, Duc Thanh Tran, Philipp Cimiano. *A Metamodel for Annotations of Ontology Elements in OWL DL*. In York Sure, Saartje Brockmans, Jürgen Jung, Proceedings of the 2nd Workshop on Ontologies and Meta-Modeling. Gesellschaft für Informatik (GI), Karlsruhe, Germany, October 2006.

2005

[Johanna Völker](#), Denny Vrandečić, York Sure. *Automatic Evaluation of Ontologies (AEON)*. In Y. Gil, E. Motta, V. R. Benjamins, M. A. Musen, Proceedings of the 4th International Semantic Web Conference (ISWC), volume 3729 of LNCS, pp. 716-731. Springer, November 2005.

Philipp Cimiano, [Johanna Völker](#). *Text2Onto – A Framework for Ontology Learning and Data-driven Change Discovery*. In Andres Montoyo, Rafael Munoz, Elisabeth Metais, Proceedings of the 10th International Conference on Applications of Natural Language to Information Systems (NLDB), volume 3513 of LNCS, pp. 227-238. Springer, 2005.

Peter Haase, [Johanna Völker](#), York Sure. *Management of Dynamic Knowledge*. Journal of Knowledge Management 9 (5): 97-107. October 2005.

Philipp Cimiano, [Johanna Völker](#). *Towards large-scale, open-domain and ontology-based named entity classification*. In G. Angelova, K. Bontcheva, R. Mitkov, N. Nicolov, Proceedings of the International Conference on Recent Advances in Natural Language Processing (RANLP), pp. 166-172. INCOMA Ltd., Borovets, Bulgaria, September 2005.

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