Name:	Birte Glimm	Nationality:	German
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RESEARCH INTERESTS

My main research interests are knowledge representation and reasoning. I enjoy developing and implementing algorithms for reasoning in expressive description logics. Most recently, I have developed and implemented a novel kind of blocking technique and new property classification algorithms that improve the performance and memory requirements of the HermiT reasoner. I also am currently working in the Data Access Working Group of the W3C on the SPARQL 1.1 standard. In particular, I am extending SPARQL to work with semantics other than simple entailment, e.g., RDF and RDFS semantics and OWL Direct and RDF-Based Semantics. I am also an editor of the OWL 2 Web Ontology Language Conformance specification.

EDUCATION

09/2004–11/2007	PhD "Querying Description Logic Knowledge Bases" at the University of Manchester under the supervision of Prof. Ian Horrocks and Prof. Ulrike Sattler
09/2001–07/2004	BSc in Computer Science at the Hamburg University of Applied Sciences. Grade Excellent (GPA 15/15)
04/1995–04/1998	Studies of Communication Design at the Hamburger Technical Art School. Completed with Grade Excellent
08/1985–06/1994	Secondary School. Degree: German Abitur (University Entrance Diploma)
08/1981–06/1985	Primary School

EMPLOYMENT

Since 08/2008	Research Assistant in the Information Systems Groups of the Computing Laboratory of the University of Oxford on the EPSRC funded project "HermiT: Reasoning with Large Ontologies". Currently main developer of the Java-based HermiT OWL reasoner.
04/2008–08/2008	Senior-Software-Engineer at the sd&m AG (Hamburg, Germany). sd&m belongs to Capgemeni and develops custom software solutions for major German companies.
10/2007–03/2008	Research Assistant in the Computing Laboratory of the University of Oxford. Research in the Information Systems Group mainly on the complexity of reasoning tasks in expressive Description Logics.
07/2003–09/2003	Internship at the Centre for Computing Technologies (TZI). Implementation of Java-based web services in the project BUSTER (Bremen University Semantic Translator for Enhanced Retrieval).
07/2002–09/2002	Internship at the Fraunhofer Institute for Applied Mathematics (ITWM). Feasibility study for the use of Support Vector Machines in the detection of Breast Cancer.
01/2000–08/2001	System developer and team leader for the multimedia agency Elephant Seven GmbH (Hamburg, Germany).
04/1998–12/2000	Co-founder of the JEN.net Internet Services GmbH.

AWARDS

2008	Awarded the Best Dissertation Prize from the School of Computer Science, The University of Manchester
09/2004–09/2007	Awarded a doctoral scholarship from the Foundation of the German Economy (Stiftung der Deutschen Wirtschaft)
09/2004–09/2007	Awarded an EPSRC studentship
2006	Awarded a travel grant to the Description Logics Workshop
2004	Awarded for the best Computer Science degree in 2004 from the Hamburg University of Applied Sciences
04/2002–07/2004	Awarded a scholarship from the Foundation of the German Economy (Stiftung der Deutschen Wirtschaft)

ACADEMIC SERVICE

Organising Committee	International Semantic Web Conference 2010
Steering Committee	International Description Logic Workshop
PC member	International Semantic Web Conference 2011, International Description Logic Workshop 2011, Joint International Semantic Technology Conference 2011, International Joint Conferences on Artificial Intelligence 2011, International Semantic Web Conference 2010 Demos&Posters, Association for the Advancement of Artificial Intelligence 2010, International Description Logic Workshop 2009, International Joint Conferences on Artificial Intelligence 2009, International Semantic Web Conference 2009, European Semantic Web Conference 2009 Poster and Demos, European Conference on Artificial Intelligence 2008, International Semantic Web Conference 2007, and International Workshop on Description Logics 2007
Reviewer for	Journal of Artificial Intelligence Research, Journal of Web Semantics, Journal of Symbolic Computation, Journal on Data Semantics, International Conference on Automated Deduction 2011, International World Wide Web Conference 2010, International Conference on Principles of Knowledge Representation and Reasoning 2010, International Conference on Automated Reasoning 2010, Workshop on Logic, Language, Information and Computation 2010, International World Wide Web Conference 2009, European Semantic Web Conference 2009, International Workshop on Description Logics 2009, International Semantic Web Conference 2008, International Workshop on Description Logics 2008, European Conference on Artificial Intelligence 2008, International Conference on Principles of Knowledge Representation and Reasoning 2008, International World Wide Web Conference 2008, International Joint Conferences on Artificial Intelligence 2007, Conference on Automated Deduction 2007, International Semantic Web Conference 2007, European Semantic Web Conference 2007, International Workshop on Description Logics 2007, International Conference on Web Reasoning and Rule Systems 2007, International Workshop on Description Logics 2006, International Conference on Principles of Knowledge Representation and Reasoning 2006, Conference on Automated Deduction 2005, International Semantic Web Conference 2005, European Semantic Web Conference 2005, International Conferences on Logic for Programming, Artificial Intelligence and Reasoning 2005, International Workshop on Description Logics 2005, OWL Experiences and Directions 2005, Methods for Modalities 2005, International Conference on Ontologies, Databases and Applications of Semantics 2005, International Workshop on Description Logics 2004

TEACHING & ADMINISTRATIVE EXPERIENCE

Lab demonstrator	Object Oriented Programming with Java, Fundamentals of Databases, Software Engineering, Knowledge Representation, Automated Reasoning, The Semantic Web: Ontologies and OWL, and Model-Based Software Design
Tutoring	Delivering algebra and analysis seminars to groups of 10 to 15 undergraduates at the Hamburg University of Applied Sciences
Mentoring	Work as a mentor for new postgraduate research students at the University of Manchester from 2005 to 2007

TECHNICAL SKILLS

Programming	Java, Smalltalk, C, Java Script, Action Script, ASP, PHP, HTML
Tools & Technologies	Java Servlets, Web Services, XML, XSLT, Java Struts Framework, jMeter, jUnit, Java Beans, Spring, Tomcat Application Server, Adobe Flex & Air, Latex
Methodologies	Object oriented software development, UML, Entity Relationship Modelling
Databases	MS SQL Server, Oracle (PL-SQL), mySQL

OTHER SKILLS

Languages	German (native), English (Fluent), Russian (Intermediate), French (Lower Intermediate)
Hobbies	Learning Russian, playing the clarinet

PUBLICATIONS

[1] Birte Glimm, Ian Horrocks, Boris Motik, Rob Shearer, and Giorgos Stoilos. A novel approach to ontology classification. *Submitted to a Journal*, 2011.

[2] Birte Glimm, Yevgeny Kazakov, and Carsten Lutz. Status $\mathcal{QIO}$: An update. 2011. Submitted to the 2011 International Workshop on Description Logic (DL 2011).

[3] Nadeschda Nikitina, Sebastian Rudolph, and Birte Glimm. Reasoning-supported interactive revision of knowledge bases. 2011. Submitted to the 2011 International Workshop on Description Logic (DL 2011).

[4] Ilianna Kollia, Birte Glimm, and Ian Horrocks. Query answering over $\mathcal{SROIQ}$ knowledge bases with SPARQL. 2011. Submitted to the 2011 International Workshop on Description Logic (DL 2011).

[5] Ilianna Kollia, Birte Glimm, and Ian Horrocks. Answering queries over OWL ontologies with SPARQL. In *Proceedings of the 8th International Workshop on OWL: Experiences and Directions (OWLED 2011)*. CEUR Workshop Proceedings, 2011.

[6] Nadeschda Nikitina, Sebastian Rudolph, and Birte Glimm. Reasoning-supported interactive revision of knowledge bases. In *Proceedings of the 22nd International Joint Conference on Artificial Intelligence (IJCAI 2011)*. AAAI Press/The MIT Press, 2011. To Appear.

[7] Ilianna Kollia, Birte Glimm, and Ian Horrocks. SPARQL query answering over OWL ontologies. In *Proceedings of the 8th Extended Semantic Web Conference (ESWC 2011)*, Lecture Notes in Computer Science, pages 382–396. Springer-Verlag, 2011.

[8] Birte Glimm, Ian Horrocks, Boris Motik, and Giorgos Stoilos. Optimising ontology classification. In *Proceedings of the 9th International Semantic Web Conference (ISWC 2010)*, volume 6414 of *Lecture Notes in Computer Science*, pages 225–240. Springer-Verlag, 2010.

[9] Birte Glimm, Sebastian Rudolph, and Johanna Völker. Integrated metamodeling and diagnosis in OWL 2. In *Proceedings of the 9th International Semantic Web Conference (ISWC 2010)*, volume 6414 of *Lecture Notes in Computer Science*, pages 257–272. Springer-Verlag, 2010.

[10] Birte Glimm and Markus Krötzsch. SPARQL beyond subgraph matching. In *Proceedings of the 9th International Semantic Web Conference (ISWC 2010)*, volume 6414 of *Lecture Notes in Computer Science*, pages 241–256. Springer-Verlag, 2010.

[11] Birte Glimm, Ian Horrocks, and Boris Motik. Optimized description logic reasoning via core blocking. In *Proceedings of the International Joint Conference on Automated Reasoning (IJCAR 2010)*, volume 6173 of *Lecture Notes in Computer Science*, pages 457–471. Springer-Verlag, 2010.

[12] Sebastian Rudolph and Birte Glimm. Nominals, inverses, counting, and conjunctive queries. *Journal of Artificial Intelligence Research*, 2010. Accepted for Publication.

[13] Birte Glimm, Ian Horrocks, and Boris Motik. Optimized DL reasoning via core blocking. In *Proceedings of the 2010 International Workshop on Description Logic (DL 2010)*, volume 573, pages 209–219. CEUR Workshop Proceedings, 2010.

[14] Birte Glimm and Sebastian Rudolph. Status QIO: Conjunctive query entailment is decidable. In *Proceedings of the 12th International Conference on the Principles of Knowledge Representation and Reasoning (KR 2010)*, pages 225–235. AAAI Press/The MIT Press, 2010.

[15] Birte Glimm and Sebastian Rudolph. Conjunctive query entailment: Decidable in spite of $\mathcal{O}$, $\mathcal{I}$, and $\mathcal{Q}$. In *Proceedings of the 2009 International Workshop on Description Logic (DL 2009)*. CEUR Workshop Proceedings, 2009.

[16] Birte Glimm, Matthew Horridge, Bijan Parsia, and Peter F. Patel-Schneider. A syntax for rules in OWL 2. In *Proceedings of the 6th International Workshop on OWL: Experiences and Directions (OWLED 2009)*, volume 529. CEUR Workshop Proceedings, 2009.

[17] Birte Glimm and Yevgeny Kazakov. Role conjunctions in expressive description logics. In *Proceedings of the 15th International Conference on Logic for Programming and Automated Reasoning (LPAR 2008)*, volume 5330, pages 391–405. Lecture Notes in Computer Science, 2008.

[18] Birte Glimm, Ian Horrocks, and Ulrike Sattler. Unions of conjunctive queries in $\mathcal{SHOQ}$. In *Proceedings of the 11th International Conference on the Principles of Knowledge Representation and Reasoning (KR 2008)*, pages 252–262. AAAI Press/The MIT Press, 2008.

[19] Birte Glimm. *Querying Description Logic Knowledge Bases.* PhD thesis, The University of Manchester, 2007.

[20] Birte Glimm, Ian Horrocks, Carsten Lutz, and Uli Sattler. Conjunctive query answering for the description logic $\mathcal{SHIQ}$. *Journal of Artificial Intelligence Research*, 31:150–197, 2008.

[21] Ian Horrocks, Birte Glimm, and Ulrike Sattler. Hybrid logics and ontology languages. *Electronic Notes in Theoretical Computer Science*, 174(6):3–14, 2007. Proceedings of the International Workshop on Hybrid Logic (HyLo 2006).

[22] Birte Glimm, Ian Horrocks, and Uli Sattler. Conjunctive query entailment for $\mathcal{SHOQ}$. In *Proceedings of the 2007 International Workshop on Description Logic (DL 2007)*. CEUR Workshop Proceedings, 2007.

[23] Birte Glimm, Ian Horrocks, Carsten Lutz, and Uli Sattler. Conjunctive query answering in the description logic $\mathcal{SHIQ}$. In *Proceedings of the 20th International Joint Conference on Artificial Intelligence (IJCAI 2007)*, 2007.

[24] Birte Glimm, Ian Horrocks, and Ulrike Sattler. Conjunctive query answering for description logics with transitive roles. In *Proceedings of the 2006 International Workshop on Description Logic (DL 2006)*, 2006.

[25] Birte Glimm and Ian Horrocks. Handling cyclic conjunctive queries. In *Proceedings of the 2005 International Workshop on Description Logic (DL 2005)*. CEUR Workshop Proceedings, 2005.

[26] Birte Glimm and Ian Horrocks. Query answering systems in the semantic web. In *Proceedings the of KI-2004 Workshop on Applications of Description Logics (ADL 2004)*. CEUR Workshop Proceedings, 2004.

[27] Birte Glimm. A query language for web ontologies, 2004. Bachelor Report, Hamburg University of Applied Sciences, http://www.cs.man.ac.uk/~glimmbx/download/report.pdf.