



# Fabian M. Suchanek

Leader of the Otto Hahn Research Group “Ontologies” ▷  
at the Max Planck Institute for Informatics ▷  
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## Research Interests

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Ontologies, Information Extraction, Semantic Web, Automated Reasoning, Ontology Matching

## Professional Experience

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- 2012      **Leader of the Otto Hahn Group “Ontologies”** ▷  
at the Max Planck Institute for Informatics, Germany ▷
- 2010      **Postdoctoral Researcher** (reporting to Dr. Serge Abiteboul ▷)  
at INRIA Saclay, France ▷
- 2009      **Visiting Researcher** (reporting to Dr. Rakesh Agrawal ▷)  
at Microsoft Research, Search Labs in Mountain View, CA, USA ▷

## Education

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- 2008      **PhD in Computer Science** (supervised by Prof. Dr. Gerhard Weikum ▷)  
Max-Planck Institute for Informatics, Saarbrücken, Germany ▷  
Thesis: "Automated Construction and Growth of a Large Ontology" ▷  
Grade: *summa cum laude*  
*Honorable Mention of the SIGMOD Jim Gray Doctoral Dissertation Award* ▷
- 2005      **Master of Science in Computer Science**  
University of Saarbrücken, Germany ▷  
Thesis: "Ontological Reasoning for Natural Language Understanding" ▷  
Grade: 1.0, *excellent with distinction*  
*Winning the Günther Hotz award for the top computer science graduates* ▷
- 2003      **Bachelor of Science in Cognitive Science**  
University of Osnabrück, Germany ▷  
Thesis: "Representing Ontological Structures in CLOS, Java and FAST" ▷  
Grade: 1.0, *excellent with distinction*
- 2000      **Community Service**  
Protestant Hospital Lippstadt, Germany ▷
- 1999      **University Entrance Diploma (Abitur)**  
Marienschule Lippstadt, Germany ▷  
Grade: 1.0, *second of 120 people*

## Research Activities [▷](#)

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**Highlights**      My most cited paper is [▷ YAGO \(WWW 2007\)](#) with [▷ 500+](#) citations  
My newest paper is [▷ PARIS \(VLDB 2012\)](#)

### [Ontology Management](#)

**Description**      I have been working in the [▷ Webdam](#) project at INRIA on semantic knowledge bases. My main interest is automated, holistic ontology matching (the [▷ PARIS](#) project). I am also working on data protection in ontologies.

**Publications**      **Watermarking for Ontologies** [▷](#)  
Fabian Suchanek, David Gross-Amblard, Serge Abiteboul  
International Semantic Web Conference (ISWC 2011)

**Adding Fake Facts to Ontologies** [▷](#)  
Fabian Suchanek, David Gross-Amblard  
Demo at the World Wide Web Conference (WWW 2012)

**PARIS: Probabilistic Alignment of Relations, Instances, and Schema** [▷](#)  
Fabian Suchanek, Serge Abiteboul, Pierre Senellart  
International Conference on Very Large Databases (VLDB 2012)

**Now**                We are particularly happy that the VLDB paper was accepted at first attempt without revisions. Our work on Ontology Matching is still ongoing, with various extensions being considered.

### [Ontology Construction](#)

**Description**      I designed methods for automatically constructing a large ontology from Wikipedia and WordNet: [▷ YAGO](#). YAGO gave rise to the [▷ YAGO-NAGA](#) project, in which several researchers work on key questions of semantic information processing. Today, YAGO is used in several major ontology projects, such as Freebase, DBpedia, SUMO.

**Publications**      **YAGO - A Core of Semantic Knowledge** [▷](#)  
Fabian M. Suchanek, Gjergji Kasneci, Gerhard Weikum  
International World Wide Web conference (WWW 2007)  
**\*more than 500 citations\***

**YAGO - A Large Ontology from Wikipedia and WordNet** [▷](#)  
Fabian M. Suchanek, Gjergji Kasneci, Gerhard Weikum  
Elsevier Journal of Web Semantics

**Integrating YAGO into the Suggested Upper Merged Ontology** [▷](#)  
Gerard de Melo, Fabian M. Suchanek, Adam Pease (4p poster)  
International Conference on Tools with Artificial Intelligence (ICTAI 2008)

**YAGO2: A Spatially and Temporally Enhanced Knowledge Base from Wikipedia** ▶  
J. Hoffart, F. M. Suchanek, K. Berberich, E. Lewis-Kelham, G. de Melo, G. Weikum  
Demo paper at the 20th World Wide Web Conference (WWW 2011)  
**\*best demo award\***

**YAGO2: A Spatially and Temporally Enhanced Knowledge Base from Wikipedia** ▶  
J. Hoffart, F. M. Suchanek, K. Berberich, G. Weikum  
Special Issue of the Artificial Intelligence Journal ▶

Now The work on YAGO is still ongoing, with several researchers working on YAGO.

#### [Ontologies and Web services](#)

Description I have worked on combining Web Services with ontologies, in particular on the ▶  
ANGIE project. This has given rise to a cooperation with the ▶ Search Computing  
project.

Publications **Active Knowledge: Dynamically Enriching RDF Knowledge Bases by Web Services (ANGIE)**  
Nicoleta Preda, Gjergji Kasneci, Fabian M. Suchanek, Thomas Neumann, Wenjun Yuan  
International Conference on Management of Data (SIGMOD 2010)

**Towards an Ontological Representation of Services in Search Computing** ▶  
Fabian Suchanek, A. Bozzon, E. Della Valle, A. Campi, S. Ronchi  
S. Ceri and M. Brambilla: New Trends in Search Computing (Springer LNCS)

**SUSIE: Search Using Services and Information Extraction** ▶  
Nicoleta Preda, Fabian Suchanek, Wenjun Yuan, Gerhard Weikum  
BDA 2011

Now The work on Web Services is still ongoing.

#### [Automated Reasoning](#)

Description I have worked on projecting complex expressions to Disjunctive Logic Programs. With  
SOFIE, I showed how automated reasoning can be used for ontological knowledge  
extraction.

Publications **SOFIE: A Self-Organizing Framework for Information Extraction** ▶  
Fabian M. Suchanek, Mauro Sozio, Gerhard Weikum  
International World Wide Web conference (WWW 2009)

**Automated Reasoning and Common Sense** ▶  
Fabian M. Suchanek  
Book of my Master's Thesis, ISBN-13: 978-3639003932

**Automated Reasoning Support for First Order Ontologies** ▶  
Peter Baumgartner, Fabian M. Suchanek  
Workshop on Principles and Practice of Semantic Web Reasoning. LNCS, Springer, 2006.

## [Information Extraction from Natural Language Documents](#)

Description I have worked on extracting information from natural language texts. My tool, LEILA, uses natural language processing and statistical learning to learn robust patterns in text. [▷](#)

Publications **Combining Linguistic and Statistical Analysis to Extract Relations from Web Documents** [▷](#)  
Fabian M. Suchanek, Georgiana Ifrim, Gerhard Weikum (6p poster)  
Conference on Knowledge Discovery and Data Mining (SIGKDD 2006)

**LEILA: Learning to Extract Information by Linguistic Analysis** [▷](#)  
Fabian M. Suchanek, Georgiana Ifrim, Gerhard Weikum  
Workshop on Ontology Learning and Population at COLING/ACL (OLP 2006)

**TOB: Timely Ontologies for Business Relations** [▷](#)  
Qi Zhang, Fabian M. Suchanek, Lihua Yue, Gerhard Weikum  
International Workshop on Web and Databases (WebDB 2008)

## [Applications of the Ontology](#)

Description I have worked on applications of the YAGO ontology in the areas of semantic search ([▷](#) NAGA, STAR), hybrid search ([▷](#) ESTER), and social tagging (TagBooster).

Publications **NAGA: Searching and Ranking Knowledge** [▷](#)  
Gjergji Kasneci, Fabian M. Suchanek, Georgiana Ifrim, Maya Ramanath, Gerhard Weikum  
International Conference on Data Engineering (ICDE 2008)

**ESTER: Efficient Search on Text, Entities and Relations** [▷](#)  
Holger Bast, Alexandru Chitea, Fabian M. Suchanek, Ingmar Weber  
International Conference on Information Retrieval (SIGIR 2007)

**Social Tags: Meaning and Suggestions** [▷](#)  
Fabian M. Suchanek, Milan Vojnovic, Dinan Gunawardena  
Conference on Information and Knowledge Management (CIKM 2008)

**STAR: Steiner Tree Approximation in Relationship-Graphs** [▷](#)  
Gjergji Kasneci, Maya Ramanath, Mauro Sozio, Fabian M. Suchanek, Gerhard Weikum  
International Conference on Data Engineering (ICDE 2009)

## [Surveys and Tutorials](#)

Description I am trying to do my bit for the general scientific culture by contributing to tutorials and publishing surveys.

Publications **Semantic Knowledge Bases from Web Sources** [▷](#)  
Fabian M. Suchanek, Martin Theobald, Gerhard Weikum, Hady Lauw, Ralf Schenkel  
Tutorial at the International Joint Conference on AI (IJCAI 2011)

**The Deep Web, XML and the Semantic Web: Scientific data management perspectives** [▷](#)  
Fabian M. Suchanek, Aparna Varde, Richi Nayak, Pierre Senellart

Tutorial at International Conference on Extending Database Technology (EDBT 2011)

**Emerging multidisciplinary research across database management systems** ▷

Anisoara Nica, Fabian M. Suchanek, Aparna Varde  
SIGMOD Record (SIGMOD Rec 2010)

**Harvesting Knowledge on the Web** ▷

Hady Lauw, Ralf Schenkel, Fabian M. Suchanek, Martin Theobald, Gerhard Weikum  
Tutorial at the Conference on Information and Knowledge Management (CIKM 2010)

**Knowledge Discovery over the Deep Web, Semantic Web and XML** ▷

Aparna Varde, Fabian M. Suchanek, Richi Nayak, Pierre Senellart  
Tutorial at Database Systems for Advanced Applications (DASFAA 2009)

**The Future of DB and IR** ▷

Gerhard Weikum, Gjergji Kasneci, Fabian M. Suchanek, Maya Ramanath  
Communications of the ACM (CACM 2008)

**The YAGO-NAGA Approach to Knowledge Discovery** ▷

Gjergji Kasneci, Fabian M. Suchanek, Maya Ramanath, Gerhard Weikum  
SIGMOD Records (SIGMOD Rec 2008)

## Research Activities at Microsoft

I was working in the ▷ Microsoft Research Search Labs team on the ▷ shopping portal of the Bing search engine.

- I was responsible for the User Interface and the Knowledge Representation of the prototype system.
- Together with Rakesh Agrawal and John Shafer, I submitted a patent on commerce search user interfaces.
- I developed techniques for automated product extraction from the Web, which were shipped in a Microsoft product.

## Workshop Organization ▷

Together with Anisoara Nica, I organized the PhD Workshop ▷ “PIKM 2011” at the Conference on Information and Knowledge Management (CIKM) 2011. This was the 4-th PhD workshop at CIKM. The goal of this workshop is two-fold: First, we want to give doctoral students an opportunity to present their work on a global stage. This allows the students to receive feedback from reviewers, from fellow students and from the general CIKM audience. Second, we believe that the database research community, too, benefits from such a workshop: PhD theses are the grassroots of research. They point out new research avenues and provide fresh viewpoints from the researchers of tomorrow.

## Pro Bono Teaching in Senegal ▷

In December 2011, I spent 3 weeks in Senegal for teaching. I taught at 3 universities: the ▷ Cheikh Anta Diop University of Dakar, the ▷ Higher Polytechnic School of Dakar, and the ▷ Gaston Berger University of Saint Louis. I taught Information Extraction, Semantic Web, and Natural Language Processing, with labs. This was an interesting experience, both for ▷me and for the ▷students.

## Awards and Scholarships

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- 2011 Best demo award for our demo paper about YAGO2 [▷](#)  
at the WWW 2011 conference [▷](#)
- 2010 Otto Hahn Assistant Professorship [▷](#)  
(3+2 year funding or a small research group by the Max Planck Society)
- 2010 Honorable Mention of the SIGMOD Jim Gray Doctoral Dissertation Award [▷](#)
- 2010 Otto Hahn Medal [▷](#)  
(Award of the Max Planck Society for my dissertation, 5000 EUR)
- 2005 - 2008 Research Training Group (Graduiertenkolleg) [▷](#)  
(Scholarship of the German Research Foundation (DFG) for the PhD)
- 2005 Günter Hotz Award  
(Award for being among the 3 best graduate computer science students  
of the academic year at the University of Saarbrücken, 1000 EUR)
- 2004 International Max-Planck Research School (IMPRS) [▷](#)  
(Scholarship of the Max-Planck Society for the Master of Science)
- 2001 - 2008 e-fellows.net  
(Private sector online scholarship, supported by Deutsche Telekom, McKinsey et al.)

## Service Activities

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- 2012 PC member of the Conf. of the Association for Computational Linguistics (ACL 2012)
- 2012 PC member of the Int. Conf. on Extending Database Theory (EDBT/ICDT 2012)
- 2011 PC member of the Int. Conf. on Web Search and Data Mining (WSDM 2012)
- 2011 PC member of the World Wide Web Conference (WWW 2012)
- 2011 Reviewing for Transactions on Knowledge and Data Engineering (TKDE 2011)
- 2011 Reviewing for Transactions on Database Systems (TODS 2011)
- 2011 Reviewing for the Artificial Intelligence Journal (AIJ 2011)
- 2011 PC member of the World Wide Web Conference (WWW 2011)
- 2010 PC member of the Int. Conf. on Artificial Intelligence (AAAI 2010)
- 2010 PC member of the Int. Conf. on Web Information Systems and Technologies (WEBIST 2010)
- 2010 Reviewing for the Journal of Web Semantics (JWS)
- 2010 Reviewing for Transactions on Intelligent Systems and Technology (TIST 2010)
- <2010 Reviewing for WSDM 2010, ICDE 2010, EACL 2009, ESWC 2008, TKDE 2007, SIGKDD 2006

## Teaching Experience

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- 2011 Teaching [▷](#) classes on the Semantic Web, Natural Language Processing  
and Information Extraction (36 hours in total)  
[▷](#) Cheikh Anta Diop University Dakar, [▷](#) Higher Polytechnic School of Dakar,  
[▷](#) Gaston Berger University Saint Louis, Senegal (see Evaluations [▷](#) [▷](#))
- 2010 Teaching [▷](#) classes on Knowledge Representation, the Semantic Web,  
Information Extraction and Natural Language Processing (35 hours in total)

- ▷ École nationale supérieure des Télécommunications in Paris (see ▷ Evaluation)
- 2008    Supervising a Master's Student (9 months)  
University of Saarbrücken, Germany ▷
- 2003    Teaching Assistant (24 weeks in total)  
▷ University of Saarbrücken, Germany and ▷ University of Osnabrück, Germany
- 2002    Teaching an unofficial course "Introduction à Java" (6 weeks) ▷  
University Pierre Mendès-France Grenoble, France ▷

### Invited Talks

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|------|---|-------------------------------|
| 2011 | Gaston Berger University, Senegal ▷   | (invited)                     |
| 2011 | Microsoft Research Cambridge, UK ▷  | (invited)                     |
| 2011 | University of Grenoble, France ▷  | (invited)                     |
| 2010 | SeCo workshop, Politecnico di Milano, Italy ▷                                 | (invited expert)              |
| 2010 | Free University of Bozen/Bolzano, Italy ▷                                     | (invited)                     |
| 2010 | University of Amsterdam, Netherlands ▷  | (invited)                     |
| 2010 | INRIA Saclay, France ▷  | (successful application talk) |
| 2010 | Microsoft Research Cambridge, UK ▷  | (successful application talk) |
| 2010 | University of Oxford, UK ▷  | (successful application talk) |
| 2009 | Politecnico di Milano, Italy ▷  | (successful application talk) |
| 2008 | Microsoft Research Silicon Valley, California, USA ▷                          | (successful application talk) |
| 2008 | University of Karlsruhe, Germany ▷  | (successful application talk) |
| 2008 | L3S Research Center, Hannover, Germany ▷                                      | (invited)                     |
| 2008 | University of Osnabrück, Germany ▷  | (invited)                     |
| 2008 | German Research Center for Artificial Intelligence, Kaiserslautern, Germany ▷ | (invited)                     |

### Further Education

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- 2010    Qualified for the French Maître de Conférences
- 2006    Seminar on the Business Technology Office of McKinsey ▷
- 2002    Semester abroad at the University Pierre Mendès-France, Grenoble, France ▷  
studying Technologies de la Connaissance ▷
- 1999    Global Young Leaders Conference in New York, USA ▷
- 1998    German-Italian political-social education in Aachen, Germany

### Languages (formal)

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C# & ASP.NET	expert
Java	expert
C++, PASCAL, LISP	basic knowledge
BASIC, Assembler	basic knowledge

## Languages (natural)

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German	fluent	(mother tongue)
English	fluent	(1 year in the US)
French	fluent	(1 year in France)
Italian	good knowledge	(8 semesters of study, Unicert 2)
Spanish	basic knowledge	(8 semesters of study, Unicert 2)
Latin	basic knowledge	(3 years at school, Latinum)
Romanian	knowledge at homeopathic level	

## Extracurricular Activities

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2010-2011	Teaching a dancing course (52 weeks) ▷ École nationale supérieure des Télécommunications in Paris ▷
2007 - 2008	Member of the Examination Commission for Computer Science University of Saarbrücken, Germany ▷
2008	Teaching a dancing course (18 weeks) ▷ Max-Planck Institute for Informatics, Saarbrücken, Germany ▷
2007 - 2008	Students' speaker of the Research Training Group (Graduiertenkolleg) ▷
2007	Teaching a dancing course (10 weeks) ▷ Max-Planck Institute for Informatics, Saarbrücken, Germany ▷
2003 - 2008	Member of the Students' Union for Computer Science ▷ University of Saarbrücken, Germany ▷
2001 - 2003	Founding member of the Students' Union for Cognitive Science ▷ University of Osnabrück, Germany ▷

## Personal

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Nationality	German
Interests	Natural Languages. Philosophy, notably ▷ Ethics, ▷ Religion, and ▷ Rationality
Other activities	Ballroom dancing, biking, choir singing

## References

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Available upon request ▷