CURRICULUM VITÆ

Name:	Tobias Kuhn, M.S., Dr. Inform.
Born:	15 April 1981, Switzerland
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Education

Apr 2010	*Dr. Inform.* Computer Science and Computational Linguistics, University of Zurich (equivalent to a *Ph.D.*); title of thesis: "Controlled English for Knowledge Representation"
Feb 2006	*M.S.* Computer Science and Economics, University of Zurich

Career/Academic Appointments

Feb 2013 – present	Postdoctoral researcher, Chair of Sociology, in particular of Modeling and Simulation, ETH Zurich
Jan – Apr 2015	Visiting scientist, Stanford University
Apr – Jul 2014	Researcher, Swiss Institute of Bioinformatics at the University of Geneva, Switzerland
Jan – Dec 2012	Postdoctoral associate, Yale Center for Medical Informatics, Yale University
Feb – Dec 2011	Lecturer and researcher, Department of Intelligent Computer Systems, University of Malta
Mar 2006 – Dec 2010	Doctoral Student and Postdoctoral researcher, Institute of Computational Linguistics, University of Zurich
May – Jul 2010	Visiting scientist, Computer Science Department, University of Chile
Oct 2005 – Mar 2006	Visiting scientist, Biotechnology Center at the Technical University Dresden, Germany
May 2004 – Sep 2005	Undergraduate research assistant, Department for Computer Science, ETH Zurich

Professional Honors & Recognition

2014	Best Research Paper Award at the 11th Extended Semantic Web Conference (ESWC 2014) for the paper *Trusty URIs: Verifiable, Immutable, and Permanent Digital Artifacts for Linked Data*
2013	Winner of the 1k Challenge at the Beyond the PDF 2 conference in 2013 for the proposal of an *Open Scholar Foundation*
2009	Mercator Award, University of Zurich, for the dissertation project on *Controlled English for Knowledge Representation*
2009	Best Paper Award, Fourth Workshop on Semantic Wikis, for the paper *How Controlled English Can Improve Semantic Wikis*

Grant History

Apr 2014 – Mar 2016	"High-Performance Computing Equipment for Sophisticated Agent Simulations and Big Data Analytics," awarded by the Swiss National Science Foundation; main proposal writer but not official applicant; CHF 236,000
Jan 2012 – May 2013	"Multilingual On-Line Translation — Enlarged," awarded by the European Commission; co-writer of proposal but not official applicant; EUR 600,000
Nov 2008 – Oct 2009	"Attempto Controlled English as a Knowledge Representation Language" (extension), awarded by the research grant program of the University of Zurich; main applicant and P.I.; CHF 50,616
Nov 2006 – Oct 2008	"Attempto Controlled English as a Knowledge Representation Language," awarded by the research grant program of the University of Zurich; main applicant and P.I.; CHF 82,975

Teaching

fall 2013 – present	ETH Zurich: Lecturer for "Modelling and Simulating Social Systems with Matlab" (Bachelor/Master course), given so far three times
spring/fall 2011	University of Malta: Lecturer for "Logic, Representation and Inference" (Master course), given twice
fall 2006 – spring 2008	University of Zurich: Teaching assistant for "Programming Techniques in Computational Linguistics," each of the two parts given twice
spring 2005	University of Zurich: Teaching assistant for "Formal Foundations of Computer Science," given once

Selected Invited Talks

17 Jun 2015	CERN Workshop on Innovations in Scholarly Communication (OAI9), Geneva: "Trusty URIs and the Nanopublication Server Network" (preliminary title)
25 Nov 2014	Colloquium at the Institute of Computational Linguistics of the University of Zurich: "Meme Extraction from Corpora of Scientific Literature using Citation Networks"
8 Jun 2013	Keynote at the International Workshop on Terminology, Languages, and Content (LaRC), Pretoria (South Africa): "Controlled Natural Language and Opportunities for Standardization"
23 Aug 2011	Grammatical Framework Summer School, Barcelona: "AceWiki"
1 Feb 2011	16th KnowTalk at KnowGravity Inc., Zurich: (in German) "Semantic Web für Menschen wie du und ich"
14 Sep 2010	Second Workshop on Controlled Natural Language, Marettimo Island, Italy: "An Introduction to AceWiki"
20 Nov 2008	Semantic Wiki Mini Series, Session 2, Ontolog Conference Call: "AceWiki: Controlled English in a Semantic Wiki"

Journal Service, Peer Review, and Events

2006 – present	Reviewer for the following jounals: International Journal of Semantic Web and Information Systems, Journal of Data Semantics, Data and Knowledge Engineering Journal, Advances in Human-Computer Interaction, Advances in Complex Systems, PLOS ONE
2007 – present	Reviewer for the following conferences and workshops: American Medical Informatics Association Annual Symposium, International Symposium on Semantic Mining in Biomedicine, Latin American Conference of Informatics, European Semantic Web Conference, International Web Rule Symposium, CCURL (Collaboration and Computing for Under-Resourced Languages in the Linked Open Data Era), Conference on Intelligent Text Processing and Computational Linguistics, European Conference on Computational Biology
2013 – present	Reviewer for the following grant agencies: Swiss National Science Foundation, South Africa's National Research Foundation
2009 – present	Program committee member for the International Workshop on Controlled Natural Language
2014	Organizer and Chair: Fourth International Workshop on Controlled Natural Language, Galway, Ireland
2009 – 2010	Program committee member for the Semantic Wiki Workshop
2012	Organizer and Chair: Third International Workshop on Controlled Natural Language, Zurich

Technology: Java, Prolog, Perl, Python, Bash, JavaScript, R, C++, Matlab, Visual Basic, XML, HTML+CSS, LaTeX, SVG, SQL, OWL, RDF, SPARQL, Eclipse, HTTP, REST, Tomcat, Jetty, Echo Web Framework, Wicket, Maven, Ant, Git, VirtualBox, Lucene, Virtuoso Triple Store, Weka, Gephi, Unix/Linux, Android

Languages: German (native), English (proficient), French (intermediate), Spanish (intermediate), Italian (beginner)

Publications

The *h*-index is 16 according to Google Scholar and 11 according to Scopus.

Journal Articles

– Tobias Kuhn, Matja Perc, and Dirk Helbing. Inheritance patterns in citation networks reveal scientific memes. *Phys. Rev. X*, 4:041036, November 2014.

– Kaarel Kaljurand, Tobias Kuhn, and Laura Canedo. Collaborative multilingual knowledge management based on controlled natural language. *Semantic Web*, to appear.

– Tobias Kuhn, Mate Levente Nagy, ThaiBinh Luong, and Michael Krauthammer. Mining images in biomedical publications: Detection and analysis of gel diagrams. *Journal of Biomedical Semantics*, 5(10):26–33, 2014.

– Tobias Kuhn and Alexandre Bergel. Verifiable source code documentation in controlled natural language. *Science of Computer Programming*, 96(1):121–140, December 2014.

– Tobias Kuhn. A survey and classification of controlled natural languages. *Computational Linguistics*, 40(1):121–170, 2014.

– Tobias Kuhn. A principled approach to grammars for controlled natural languages and predictive editors. *Journal of Logic, Language and Information*, 22(1):33–70, 2013.

– Tobias Kuhn. The understandability of OWL statements in controlled English. *Semantic Web*, 4(1), 2013.

– Tobias Kuhn and Stefan Höfler. Coral: Corpus access in controlled language. *Corpora*, 7(2):187–206, 2012.

Papers in Conference Proceedings

– Kurt Winkler, Tobias Kuhn, and Martin Volk. Evaluating the fully automatic multi-language translation of the swiss avalanche bulletin. In *Proceedings of the Fourth International Workshop on Controlled Natural Language (CNL 2014)*, pages 44–54. Springer, 2014.

– Tobias Kuhn and Michel Dumontier. Trusty URIs: Verifiable, immutable, and permanent digital artifacts for linked data. In *Proceedings of the 11th Extended Semantic Web Conference (ESWC 2014)* **(acceptance rate: 23%), best research paper award**, pages 395–410. Springer, 2014.

– Tobias Kuhn, Paolo Emilio Barbano, Mate Levente Nagy, and Michael Krauthammer. Broadening the scope of nanopublications. In *Proceedings of the 10th Extended Semantic Web Conference (ESWC 2013)* **(acceptance rate: 26%)**, pages 487–501. Springer, 2013.

– Kaarel Kaljurand and Tobias Kuhn. A multilingual semantic wiki based on Attempto Controlled English and Grammatical Framework. In *Proceedings of the 10th Extended Semantic Web Conference (ESWC 2013)* **(acceptance rate: 26%)**, pages 427–441. Springer, 2013.

– Tobias Kuhn and Michael Krauthammer. Underspecified scientific claims in nanopublications. In *Proceedings of the Workshop on the Web of Linked Entities (WoLE 2012)* (acceptance rate: 50%). CEUR-WS, 2012.

– Tobias Kuhn and Michael Krauthammer. Image mining from gel diagrams in biomedical publications.

In *Proceedings of the 5th International Symposium on Semantic Mining in Biomedicine (SMBM 2012)*, pages 26–33. University of Zurich, 2012.

– Tobias Kuhn, ThaiBinh Luong, and Michael Krauthammer. Finding and accessing diagrams in biomedical publications. In *Proceedings of the American Medical Informatics Association (AMIA) 2012 Annual Symposium*, 2012.

– Tobias Kuhn. Codeco: A practical notation for controlled English grammars in predictive editors. In *Proceedings of the Second International Workshop on Controlled Natural Language (CNL 2010)*, pages 95–114. Springer, 2012.

– Tobias Kuhn. Codeco: A grammar notation for controlled natural language in predictive editors. In *Pre-Proceedings of the Second Workshop on Controlled Natural Languages (CNL 2010)*. CEUR-WS, 2010.

– Richard N. Shiffman, George Michel, Michael Krauthammer, Norbert E. Fuchs, Kaarel Kaljurand, and Tobias Kuhn. Writing clinical practice guidelines in controlled natural language. In *Proceedings of the Workshop on Controlled Natural Language (CNL 2009)*, pages 265–280. Springer, 2010.

– Tobias Kuhn. An evaluation framework for controlled natural languages. In *Proceedings of the Workshop on Controlled Natural Language (CNL 2009)*, pages 1–20. Springer, 2010.

– Tobias Kuhn. How controlled English can improve semantic wikis. In *Proceedings of the Forth Semantic Wiki Workshop (SemWiki 2009)*, **best paper award**. CEUR-WS, 2009.

– Richard N. Shiffman, George Michel, Michael Krauthammer, Norbert E. Fuchs, Kaarel Kaljurand, and Tobias Kuhn. Controlled natural language for clinical practice guidelines. In *Pre-Proceedings of the Workshop on Controlled Natural Language (CNL 2009)*. CEUR-WS, April 2009.

– Tobias Kuhn. How to evaluate controlled natural languages. In *Pre-Proceedings of the Workshop on Controlled Natural Language (CNL 2009)*. CEUR-WS, April 2009.

– Tobias Kuhn. AceWiki: A natural and expressive semantic wiki. In *Proceedings of the Fifth International Workshop on Semantic Web User Interaction (SWUI 2008) — Exploring HCI Challenges*. CEUR-WS, 2009.

– Tobias Kuhn. AceWiki: Collaborative ontology management in controlled natural language. In *Proceedings of the Third Workshop on Semantic Wikis — The Wiki Way of Semantics*. CEUR-WS, 2008.

– Tobias Kuhn and Rolf Schwitter. Writing support for controlled natural languages. In *Proceedings of the Australasian Language Technology Association Workshop 2008*, pages 46–54, December 2008.

– Gerold Schneider, Kaarel Kaljurand, Fabio Rinaldi, and Tobias Kuhn. Pro3Gres parser in the CoNLL domain adaptation shared task. In *Proceedings of the CoNLL Shared Task Session of EMNLP-CoNLL*, 2007.

– Tobias Kuhn. AceRules: Executing rules in controlled natural language. In *Web Reasoning and Rule Systems — First International Conference (RR 2007)* (acceptance rate: 48%), pages 299–308. Springer, 2007.

– Tobias Kuhn, Loïc Royer, Norbert E. Fuchs, and Michael Schroeder. Improving text mining with controlled natural language: A case study for protein interations. In *Data Integration in the Life Sciences — Proceedings of the Third International Workshop (DILS 2006)* (acceptance rate: 39%), pages 66–81. Springer, 2006.

Edited Books

– Brian Davis, Kaarel Kaljurand, and Tobias Kuhn, editors. *Proceedings of the Fourth International Workshop on Controlled Natural Language (CNL 2014)*, volume 8625 of *Lecture Notes in Computer Science*. Springer, Berlin / Heidelberg, Germany, 2014.

– Tobias Kuhn and Norbert E. Fuchs, editors. *Proceedings of the Third International Workshop on Controlled Natural Language (CNL 2012)*, volume 7427 of *Lecture Notes in Computer Science*. Springer, Berlin / Heidelberg, Germany, 2012.

Book Chapters

– Norbert E. Fuchs, Kaarel Kaljurand, and Tobias Kuhn. ACE can be described by itself. In Simon Clematide, Manfred Klenner, and Martin Volk, editors, *Searching Answers — Festschrift in Honour of Michael Hess on the Occasion of His 60th Birthday*, pages 45–48. Monsenstein und Vannerdat, Münster, Germany, 2009.

– Juri Luca De Coi, Norbert E. Fuchs, Kaarel Kaljurand, and Tobias Kuhn. Controlled English for reasoning on the Semantic Web. In François Bry and Jan Małuszyński, editors, *Semantic Techniques for the Web — The REWERSE Perspective*, volume 5500 of *Lecture Notes in Computer Science*, pages 276–308. Springer, 2009.

– Norbert E. Fuchs, Kaarel Kaljurand, and Tobias Kuhn. Attempto Controlled English for knowledge representation. In Cristina Baroglio, Piero A. Bonatti, Jan Małuszyński, Massimo Marchiori, Axel Polleres, and Sebastian Schaffert, editors, *Reasoning Web — 4th International Summer School 2008*, volume 5224 of *Lecture Notes in Computer Science*, pages 104–124. Springer, 2008.

Consensus Statements

– Adam Wyner, Krasimir Angelov, Guntis Barzdins, Danica Damljanovic, Brian Davis, Norbert Fuchs, Stefan Hoefler, Ken Jones, Kaarel Kaljurand, Tobias Kuhn, Martin Luts, Jonathan Pool, Mike Rosner, Rolf Schwitter, and John Sowa. On controlled natural languages: Properties and prospects. In Norbert E. Fuchs, editor, *Proceedings of the Workshop on Controlled Natural Language (CNL 2009)*, volume 5972 of *Lecture Notes in Computer Science*, pages 281–289. Springer, 2010.

Thesis

– Tobias Kuhn. *Controlled English for Knowledge Representation*. PhD thesis, Faculty of Economics, Business Administration and Information Technology of the University of Zurich, 2010.