

## Matthias Grabmair - CV [3/2018]

### OFFICE ADDRESS

6509 GHC  
Carnegie Mellon University  
5000 Forbes Ave.  
Pittsburgh, PA 15213  
[www.andrew.cmu.edu/user/mgrabmai](http://www.andrew.cmu.edu/user/mgrabmai)

### MAIN WORK

I am a Systems Scientist at Carnegie Mellon University's Language Technologies Institute working on solving problems in intelligent legal information management and intelligent natural language dialogue systems while also teaching at the institute. My work is best described as (Legal) Knowledge Engineering or (Legal) Data Science. It draws from artificial intelligence & law, knowledge representation & reasoning, natural language processing, applied machine learning, information retrieval as well as computational models of argument.

### ACADEMIC POSITIONS

<b>Systems Scientist</b>	Carnegie Mellon University Language Technologies Institute Pittsburgh, PA	since 07/2017
<b>Postdoctoral Associate</b>	Carnegie Mellon University Language Technologies Institute Pittsburgh, PA	2016-2017

### VISITING POSITIONS

<b>Visiting Professor</b>	University of Heidelberg School of Law Heidelberg, Germany	December 2017
<b>Visiting Researcher</b>	Carnegie Mellon University Language Technologies Institute Pittsburgh, PA	2015-2016
<b>Visiting Professor</b>	University of Pittsburgh School of Law Pittsburgh, PA	Fall Term 2010

### EDUCATION

<b>PhD, Intelligent Systems</b>	University of Pittsburgh Dietrich School of Arts & Sciences Intelligent Systems Program Pittsburgh, PA	2007-2016
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Advisor: Prof. Kevin D. Ashley; thesis title: *Modeling Purposive Legal Argumentation and Case Outcome Prediction using Argument Schemes in the Value Judgment Formalism*

<b>LLM, Master of Laws</b> <i>Magna cum laude</i>	University of Pittsburgh School of Law Pittsburgh, PA	2004-2005
<b>Dipl-Jur (Univ)</b> <i>First State Exam in Law</i>	University of Augsburg School of Law Augsburg, Germany	2001-2007

Elective: European & Public International Law, certificate in Anglo-American Law

## FELLOWSHIPS AND AWARDS

Andrew Mellon Predoctoral Fellowship, 2012-2013, University of Pittsburgh  
Donald H. Berman Best Student Paper Award, ICAIL Conference 2011  
Dietrich School of Arts & Sciences Fellowship, 2007-2009, University of Pittsburgh  
Summer Fellowship, Google Summer of Code Program 2008  
Undergraduate Fellowship, 2004-2007, Friedrich-Ebert-Foundation, Germany  
Study Abroad Scholarship, 2004, German Academic Exchange Service (DAAD)  
Tuition Scholarship, 2004-2005, Center for International Studies, University of Pittsburgh

## TEACHING ACTIVITY

- Taught AI&Law introduction course, University of Heidelberg School of Law, December 2017
- Co-taught *11-631 Data Science Seminar*, *11-634 Capstone Planning Seminar*, *11-632 Capstone Project Course*, Master's Program in Computational Data Science (MCDS), Analytics Major, School of Computer Science, Carnegie Mellon University, since Fall 2015
- *Public International Law Advocacy*, University of Pittsburgh School of Law, Fall 2010
- Coach of the Jessup Moot Court Team, University of Pittsburgh School of Law, 2010, 2011

## RESEARCH COMMUNITY SERVICE

*Organizing Committee memberships:*

- ASAIL 2015, 2017 Workshops on Automated Semantic Analysis of Information in Legal Texts, held in conjunction with ICAIL 2015, 2017

*Program committee memberships:*

- IJCAI 2017 Special Track on AI&Autonomy
- International Conference on AI&Law (ICAIL), 2015, 2017
- JURIX Conference on Legal Knowledge and Information Systems 2016, 2017
- RuleML 2016
- AI for Justice Workshop at ECAI 2016
- ARG-MINING, Workshop on Argumentation Mining, 2015, 2017
- LIT 2014 (6th Legal Informatics and Legal Information Technology Workshop)
- Workshop on "Semantic Processing of Legal Texts (SPLeT-2014)", Special Track on Legal Resources and Access to Law
- RuleML 2014 Special Track on *Rules and Human Language Technology*
- RuleML 2013 Special Track on *Translating between Human Language and Formal Rules: Business, Law, and Government*

*Scientific Journal Activity:*

- Member of the editorial board of the *Artificial Intelligence and Law* journal, Springer
- Reviewer for *International Journal on Artificial Intelligence and Education*

## PUBLICATIONS

A. Ravichander, T. Manzini, M. Grabmair, G. Neubig, J. Francis and E. Nyberg, How Would You Say It? Eliciting Lexically Diverse Dialogue for Supervised Semantic Parsing, Proceedings SIGDIAL 2017, pp 374-383, ACL, 2017.

M. Grabmair, Predicting Trade Secret Case Outcomes using Argument Schemes and Learned Quantitative Value Effect Tradeoffs, ICAIL 2017 Proceedings, ACM, 2017.

A. Bansal, Z. Bu, B. Mishra, S. Wang, K. D. Ashley and M. Grabmair, Document Ranking with Citation Information and Oversampling Sentence Classification in the LUIMA Framework, Proceedings of the 2016 International Conference on Legal Knowledge and Information Systems (JURIX 2016), pp 33-42, IOS Press, 2016.

M. Grabmair, Modeling Purposive Legal Argumentation and Case Outcome Prediction using Argument Schemes in the Value Judgment Formalism. Doctoral Dissertation, University of Pittsburgh, 2016.

M. Grabmair, K. D. Ashley, R. Chen, P. Sureshkumar, C. Wang, E. Nyberg and V. R. Walker, Introducing LUIMA: An Experiment in Legal Conceptual Retrieval of Vaccine Injury Decisions using a UIMA Type System and Tools, ICAIL 2015 Proceedings, 69-78, ACM, 2015.

J. Savelka, M. Grabmair, K.D. Ashley, Mining Information from Statutory Texts in Multi-jurisdictional Settings. In Rinke Hoekstra. Legal Knowledge and Information Systems (JURIX 2014). Amsterdam: IOS Press, pp. 133-142, 2014.

P. M. Sweeney, E. F. Bjerke, M. A. Potter, H. Gl, C. R. Keane, K. D. Ashley, M. Grabmair, R. Hwa, Network Analysis of Manually-Encoded State Laws and Prospects for Automation. In Winkels, R.; Lettieri, N.; Faro, S. (Eds.). Network Analysis in Law. Collana: Diritto Scienza Tecnologia/Law Science Technology Temi, 3, Napoli: Edizioni Scientifiche Italiane, 2014.

M. Grabmair & K.D. Ashley, Using Event Progression to Enhance Purposive Argumentation in the Value Judgment Formalism, ICAIL 2013 Proceedings, 73-82, ACM, 2013.

M. Grabmair & K.D. Ashley, A Survey of Uncertainties and their Consequences in Probabilistic Legal Argumentation, in: Bayesian Argumentation - The Practical Side of Probability (Frank Zenker ed.), S. 61-85, Springer, 2012.

M. Grabmair, K.D. Ashley, R. Hwa and P.M. Sweeney, Toward Extracting Information from Public Health Statutes using Text Classification and Machine Learning, Jurix 2011: The 24th Annual Conference, pp. 73-82 (Katie M. Atkinson ed.) IOS Press, 2011.

M. Grabmair & K.D. Ashley, Facilitating Case Comparison Using Value Judgments and Intermediate Legal Concepts, ICAIL 2011 Proceedings, 161-170, ACM, 2011. [Donald H. Berman Best Student Paper Award]

M. Grabmair & K.D. Ashley, Argumentation with Value Judgments - An Example of Hypothetical Reasoning, Jurix 2010: The 23rd Annual Conference, 67-76 (R.G.F. Winkels ed.), IOS Press, 2010.

M. Grabmair, T.F. Gordon, and D. Walton, Probabilistic Semantics for the Carneades Argument Model Using Bayesian Networks, Proceedings of the Third International Conference on Computational Models of Argument (COMMA), 255-266, IOS Press, 2010.

M. Grabmair & K.D. Ashley, Using Critical Questions to Disambiguate and Formalize Statutory Provisions, ICAIL 2009 Proceedings, 240-241, ACM SIGART, 2009.

M. Grabmair & K.D. Ashley, Towards Modeling Systematic Interpretation of Codified Law, Jurix

2005: The Eighteenth Annual Conference, 107-108 (M.-F. Moens, P. Spyns ed.), IOS Press, 2005.

## TALKS & TUTORIALS

ICAIL 2017 Tutorial on Artificial Intelligence and the Law, co-presented with Prof. Kevin Ashley, 15th International Conference on Artificial Intelligence and Law, ICAIL 2017, London, UK.

ICAIL 2015 Tutorial on Artificial Intelligence and the Law, co-presented with Prof. Kevin Ashley, 15th International Conference on Artificial Intelligence and Law, ICAIL 2015, San Diego, USA.

Panelist, ICAIL 2013 Workshop on Argumentation in Artificial Intelligence and Law (chaired by Trevor Bench-Capon), Rome, Italy.

ICAIL 2013 Tutorial on Artificial Intelligence and the Law, co-presented with Prof. Kevin Ashley, 14th International Conference on Artificial Intelligence and Law, ICAIL 2013, Rome, Italy.

How argument schemes and structures can be used for effective international law moot court preparation, University of Pittsburgh School of Law, Pittsburgh, USA, October 2012.

A Formalisation of the Right to Life (R2L) and the Responsibility to Protect (R2P), Introductory remarks for roundtable discussion, JURIX 2011, Vienna, Austria.

Tutorial in Artificial Intelligence and Law, co-presented with Prof. Kevin Ashley, Jurix Conference 2011, Vienna, Austria.

Erste Schritte zur Automatischen Erkennung von Agenten-Interaktionen in Gesetzestexten durch Textklassifikation und Maschinelles Lernen, Fachtagung Rechtsinformatik (FTRI) 2011, Vienna, Austria.

Assessing Argument Moves in the Carneades Argument Model Using Bayesian Networks, Workshop on Bayesian Argumentation 2010, Lund University, Sweden.

Isomorphie, Logikprogrammierung, Methodenlehre, Internationales Rechtsinformatik Symposium (IRIS) 2008, Salzburg, Austria.

Grundüberlegungen zur Modellierung der Systematischen Auslegung durch Norminteraktionsprädikate, Internationales Rechtsinformatik Symposium (IRIS) 2006, Vienna, Austria.