

## Contact

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## Education

**University of Copenhagen, Denmark** 2015 - 2018  
Ph.D. in Computer Science (Language Technology)

Thesis Title: *Personalized and Adaptive Text Simplification*

The project explored techniques to continuously learn from user feedback to create personalized NLP systems that adapt to the user, in particular for text simplification.

The PhD resulted in a total of 14 peer-reviewed publications, most at top-tier NLP venues, and a software that provides personalized simplification on-demand as a browser plugin.

During the PhD, I further did research on machine learning and deep learning (in particular, multitask learning) and the use of cognitive data (e.g. eye-tracking signals) to improve NLP systems.

**University of Heidelberg, Germany** 2012 - 2015  
M.A. in Computational Linguistics, Minor in German Linguistics  
Thesis Title: *Instantiation and Implementation of a Corpus Query Lingua Franca*  
Overall Grade: *Pass with Distinction* (1.0 in German grading scheme, best possible)

**University of Uppsala, Sweden** 2010 - 2011  
Erasmus stipend  
Undergraduate courses in Computational Linguistics, Swedish and English Linguistics

**University of Heidelberg, Germany** 2008 - 2012  
B.A. in Computational Linguistics, Minor in English Linguistics  
Thesis Title: *A Semantic Classification of Adverbs*  
Overall Grade: *Pass with Distinction* (1.2 in German grading scheme)

## Professional Experience

**University of Copenhagen** September 2018 - present  
*Postdoctoral Researcher* Copenhagen, Denmark

Research focus on Natural Language Understanding, Question Answering

January 2019 - July 2019: Parental leave, full-time caregiver to infant

**Amazon Research** October 2017 - December 2017  
*Research Intern* Berlin, Germany

Joint question answering and question generation from Amazon customer questions and reviews

**University of Sheffield** February 2017 - May 2017  
*Visiting Researcher* Sheffield, UK

Research on adaptive text simplification with Lucia Specia

## Institute for the German Language (IDS)

Research Associate

June 2012 - March 2015

Mannheim, Germany

Member of the KorAP project (Development of a next-generation corpus analysis platform)

Development of a conversion suite to translate queries to a meta format

Corpus processing, including curation, training and evaluation of processors, with the objective of tagging DeReKo, a very large (24 billion words) and unbalanced reference corpus of German

Implementation and maintenance of an institutional document repository

## Department of Computational Linguistics

Teaching Assistant

October 2009 - February 2012

Heidelberg, Germany

Introduction to Computational Linguistics (2011/12)

Formal Syntax (2010)

Mathematical Foundations of Linguistics (2009/10)

## Institute for the German Language (IDS)

Research Intern

August 2011 - September 2011

Mannheim, Germany

Conversion of a corpus of historical newspaper texts from typographic markup into XML

Experiments with Google NGrams to inform the institute's data release policy

## Publications

### Theses

**Bingel, J.:** (2018) *Personalized and Adaptive Text Simplification*. PhD Thesis, University of Copenhagen. Supervised by Anders Søgaard.

**Bingel, J.:** (2015) *Instantiation and Implementation of a Corpus Query Lingua Franca*. Master thesis, Heidelberg University. Supervised by Andreas Witt.

**Bingel, J.:** (2012) *A Semantic Classification of Adverbs*. Bachelor thesis, Heidelberg University. Supervised by Anette Frank.

### Book chapters

Waseem Butt, Z., Thorne, J. and **Bingel, J.** (2018): *Bridging the Gaps: Multi-Task Learning for Domain Transfer of Hate Speech Detection*. In Goldbeck, Jennifer (ed.): *Online Harassment*. Springer, London.

### Peer-reviewed articles

González, A.; Petrán Bach Hansen, V.; **Bingel, J.**; Søgaard, A (2019): *CoAStAL at SemEval-2019 Task 3: Affect Classification in Dialogue using Attentive BiLSTMs*. In SemEval. Minneapolis, USA.

Ruder, S.; **Bingel, J.**; Augenstein, I.; Søgaard, A. (2019). *Latent Multi-task Architecture Learning*. In AACL 2019, Honolulu, Hawaii

Barrett, M.; **Bingel, J.**; Hollenstein, N.; Rei, M. and Søgaard, A. (2018): *Sequence classification with human attention*. In CoNLL. Brussels, Belgium. [Special Paper Award Winner]

Bollmann, M.; Søgaard, A. and **Bingel, J.** (2018): *Multi-task learning for historical text normalization: Size matters*. In Workshop on Deep Learning Approaches for Low-Resource NLP 2018. Melbourne, Australia.

**Bingel, J.**; Paetzold, G. H. and Søgaard, A. (2018): *Lexi: a tool for adaptive, personalized text simplification*. In COLING. Santa Fe, USA.

**Bingel, J.** and Bjerva, J. (2018): *Cross-lingual complex word identification with Multitask Learning*. In CWI 2018 Shared Task at the 13th Workshop on Innovative Use of NLP for Building Educational Applications (BEA). New Orleans, USA.

**Bingel, J.**; Barrett, M. and Klerke, S. (2018): *Predicting Misreadings from Gaze in Children with Reading Difficulties*. In 13th Workshop on Innovative Use of NLP for Building Educational Applications (BEA). New Orleans, USA.

Alva Manchego, F.; **Bingel, J.**; Scarton, C.; Paetzold, G. H. and Specia, L. (2017): *Learning How to Simplify From Explicit Labeling of Complex-Simplified Text Pairs*. In IJCNLP 2017, Taipei.

Bollmann, M.; **Bingel, J.** and Søgaard, A. (2017): *Learning attention for historical text normalization by learning to pronounce*. In ACL 2017. Vancouver, Canada.

**Bingel, J.** and Søgaard, A. (2017): *Beneficial task relations for multi-task learning in deep neural networks*. In EACL 2017. Valencia, Spain.

**Bingel, J.**; Barrett, M. and Søgaard, A. (2016): *Extracting token-level signals of syntactic processing from fMRI - with an application to PoS induction*. In ACL 2016. Berlin, Germany.

**Bingel, J.** and Søgaard, A. (2016): *Text simplification as tree labeling*. In ACL 2016. Berlin, Germany.

Barrett, M.; **Bingel, J.** and Søgaard, A. (2016): *Part-of-speech Induction from eye-tracking data*. In ACL 2016. Berlin, Germany.

Diewald, N.; Hanl, M.; Margaretha, E.; **Bingel, J.**; Kupietz, M.; Banski, P. and Witt, A. (2016): *KorAP Architecture – Diving in the Deep Sea of Corpus Data*. In LREC 2016. Portoroz, Slovenia.

**Bingel, J.**; Schluter, N. and Martínez Alonso, H. (2016). *The importance of designing your Neural Networks right*. In *SemEval 2016 Shared Task 11: Complex Word Identification*. San Diego, California.

**Bingel, J.** and Diewald, N. (2015). *KoralQuery – A General Corpus Query Protocol*. In: *Innovative Corpus Query and Visualization Tools at NODALIDA 2015*. Vilnius, Lithuania.

**Bingel, J.** and Haider, T. (2014). *Named-Entity Tagging a Very Large Unbalanced Corpus. Training and Evaluating NE classifiers*. In: N. Calzolari, K. Choukri, et al. (eds.). *Proceedings of the Ninth International Conference on Language Resources and Evaluation (LREC'14)*. Reykjavik, Iceland.

Bański, P.; **Bingel, J.**; Diewald, N.; Frick, E.; Hanl, M.; Kupietz, M.; Pezik, P.; Schnober, C. and Witt, A. (2013). *KorAP: the new corpus analysis platform at IDS Mannheim*. In Z. Vetulani and H. Uszkoreit (eds.). *Human Language Technologies as a Challenge for Computer Science and Linguistics. Proceedings of the 6th Language and Technology Conference*. Poznań.

## — Tech reports

Fiedler, N.; Werthmann, A.; Stührenberg, M.; Schonefeld, O.; **Bingel, J.** and Witt, A. (2014). *Forschungsinfrastrukturen in außeruniversitären Forschungseinrichtungen*. Research Report. <http://hdl.handle.net/10932/00-0230-5FEB-262D-CA01-8>

## Professional Activities

<b>Teaching (as course instructor)</b>	M.Sc. class Scientific Programming (2016)
<b>Teaching (as teaching assistant)</b>	M.Sc. class Web Science (2018)
<b>Supervision</b>	B.Sc. thesis <i>Fixation prediction in reading</i> M.Sc. thesis <i>Script generation for movies</i> M.Sc. thesis <i>Predicting misreadings from gaze data</i>
<b>Invited Talks</b>	Adaptive Text Simplification: <i>Machine Reading Group at UCL (2017), Nota (2016, 2017), UPF Barcelona (2018)</i> Multitask Learning: <i>University of Sheffield (2017)</i> Question Answering: <i>Tech Talk at The Camp, Copenhagen (2018), SupWiz (2018)</i>
<b>Reviewing</b>	ACL (2018, 2017), EMNLP (2017), CoNLL (2017), EACL (2017), WWW (2017), IJCNLP (2017), WiNLP (2018, 2017), BEA (2019, 2018, 2017), Abusive Language Workshop (2019, 2018, 2017), Learning from Limited Data (2017), Nodalida (2017, 2019), Coling (2018, 2016), CL4LC (2016), SemEval (2016)
<b>Summer schools</b>	LxMLS (2016), DIKU-DTU (2017)
<b>Others</b>	Handbook Chair and Member of Local Organizing Committee (EMNLP 2017), Google NLP Summit (2017)

## Grants & Scholarships

<b>2018</b>	Grant over USD 20,000 from AdeptMind for work on meta- and multi-task learning
<b>2015</b>	Ph.D. scholarship from the University of Copenhagen, funded by Trygfonden
<b>2010</b>	Erasmus stipend for 10-months stay in Uppsala, Sweden

## Technical Strengths

<b>Programming &amp; Scripting</b>	Java, Python, Matlab, PHP, Javascript, C++, Bashscript
<b>Software Development</b>	Git, SVN, Maven, Eclipse
<b>Others</b>	TensorFlow, Apache Tomcat, PostgreSQL, Unix, TeX, MapReduce, Jupyter

## Languages

<b>German</b>	native	<b>Catalan</b>	B2
<b>English</b>	C2	<b>Spanish</b>	B1
<b>Swedish</b>	C1	<b>French</b>	A2
<b>Danish</b>	C1	<b>Latin</b>	high proficiency

Levels according to Common European Framework of Reference

## References

Prof. Anders Søgaard, Department of Computer Science, University of Copenhagen. PhD thesis advisor. [soegaard@di.ku.dk](mailto:soegaard@di.ku.dk)

Prof. Dr. Anette Frank, Department of Computational Linguistics, University of Heidelberg. BA thesis advisor and course responsible in two of the classes for which I was a teaching assistant. [frank@cl.uni-heidelberg.de](mailto:frank@cl.uni-heidelberg.de)

Prof. Dr. Andreas Witt, Institute for the German Language (IDS), Mannheim. MA thesis advisor and head of department during my employment at IDS. [witt@ids-mannheim.de](mailto:witt@ids-mannheim.de)

Prof. Lucia Specia, Department of Computer Science, University of Sheffield. Host during  
abroad stay in Sheffield 2017. [lspecia@shef.ac.uk](mailto:lspecia@shef.ac.uk)

Assoc. Prof. Dirk Hovy, Department of Computer Science, University of Copenhagen.  
[dirk.hovy@di.ku.dk](mailto:dirk.hovy@di.ku.dk)