Khalid Al-Khatib

> > > Education		
2014 - 2019	PhD in Computer Science	Bauhaus-Universität Weimar
	Dissertation: "Computational Analysis of AAdvisor: Prof. Dr. Benno Stein. External ex	
2007 - 2010	MS. in Computer Science	Jordan University of Science & Tech.
	▶ GPA: 87.1% (Very Good). Rank: top 5%.	
2008 - 2009	Visiting Graduate Student	Masaryk University
	▶ Graduate level courses in Computer Scien	ce.
2003 - 2007	BSc. in Computer Science,	Al Balqa Applied University
	▶ GPA: 3.28/4.00 (Very Good). Rank: top 5%	
> > > Experience	ce	
11.2020-	Postdoctoral Researcher	Leipzig University
	Advisor: Prof. Dr. Martin Potthast	
1.2020 - 10.2020	Postdoctoral Researcher	Martin-Luther-University, Bauhaus-Universität Weimar
	▶ Advisor: Prof. Dr. Matthias Hagen, Prof. Dr	. Benno Stein
2015 - 2019	Researcher	Bauhaus-Universität Weimar
	Advisor: Prof. Dr. Benno Stein	
11.2018 - 04.2019	Research Intern	IBM Research, Ireland Research Lab
	Advisor: Dr. Yufang Hou	
2011 - 2013	Researcher	Institute for NLP, University of Stuttgart
	Advisor: Prof. Dr. Hinrich Schutze, Prof. Dr. Cathleen Kantner.	
▶ ▶ Research	Projects	
2020 - Present	Conversational News	Martin-Luther-University, Bauhaus-Universität Weimar
	This project includes the development of a prototype that deploy text news articles to smart assistants. Writing augmented tools will be provided by semi-automatic ways to enhance the experience of delivering news in audio channels.	
	The project is funded by Google within the Digital News Innovation Fund.	
2019 - Present	Argumentation Knowledge Graph	Bauhaus-Universität Weimar (Webis.de)
	 The project aims for constructing an argumentation knowledge graph that is adequate for supporting several artificial intelligent down-stream applications such as text generation, decision making, and argument search. The project is partially funded by IBM through the Ph.D. fellowship award. 	

Bauhaus-Universität Weimar (Webis.de)

2015 - 2018

Args.me Search Engine

- This project targets the development of the first argument search engine on the web. The project addresses several challenges of mining arguments and their relations from natural language text on the web. We develop algorithms that (1) robustly tackle various forms of web argumentation, (2) efficiently leverage the scale of the web, and (3) effectively complement argument mining with an argumentation analysis to assess important quality dimensions.
- The project is funded by the German Research Foundation (DFG).
- Advisor: Prof. Dr. Benno Stein. Prof. Dr. Matthias Hagen, Jun. Prof. Dr. Henning Wachsmuth

2015 - Present Argumentation Strategies

Bauhaus-Universität Weimar (Webis.de)

- This research project is centered around the strategies that authors of monological argumentative texts, such as news editorials and scientific articles, employ to persuade their readers. It seeks to (1) establish computational models of such argumentation strategies, (2) analyze what strategies are common and effective within and across argumentative text genres, and (3) synthesize texts with effective strategies for given sets of arguments.
- The project is funded by the German Research Foundation (DFG).
- Advisor: Prof.Dr. Benno Stein. Jun.-Prof. Dr. Henning Wachsmuth.

11.2018 - 04.2019 Counter-argument Generation

IBM Research, Ireland Research Lab

- This project concerns developing new technologies for tackling the following task:given a target argument, we aim to recommend its counterargument(s) from a set of mined arguments related to the same topic.
- Advisor: Dr. Lea Deleris. Dr. Yufang Hou

2011-2013 Sentiment Topic Analysis

Institute for NLP, University of Stuttgart

- ▶ This project studies some areas in sentiment analysis that haven't been studied extensively before like perspectives' classification, bias detection, and the relation between social networks and their users with the public opinion of different sub-communities.
- Advisor: Prof. Dr. Hinrich Schutze.

2011-2013 **eldentity**

Institute for NLP, University of Stuttgart

- **>** This project studies multiple collective identities in international debates about war and peace since the end of the Cold War. Many language technology tools and methods are used to analyze multilingual text concepts in the social sciences.
- Advisor: Prof. Dr. Cathleen Kantner.

▶ ▶ ▶ Honors & Awards

2017	IBM Ph.D. Fellowship Award	IBM
2011 - 2012	SFB 732 Research Scholarship	University of Stuttgart
2008 - 2009	Erasmus Mundus Action2 Scholarship	Masaryk University
2009 - 2010	Graduate Scholarship	Jordan University of Science and Technology

Training & Workshops 2019 Conversational Search Schloss Dagstuhl Seminar 2019 Google NLP Summit Google Zürich 2017 Lisbon Machine Learning Summer School Instituto Superior Técnico (IST) 2015 **Debating Technologies** Schloss Dagstuhl Seminar 2013 DeepQA, IBM Watson Tutorial TU Darmstadt

▶ ▶ Reviewing

Conference: ACL: 2016-2021, AAAI: 2019, NAACL: 2016,2019. COLING: 2018, 2020, EMNLP: 2017, 2019, 2020.

EACL: 2016

Workshop: ArgMining Workshop: 2016-2021

Journal: Language Resources and Evaluation: 2021

> > Organisation

Workshop Co-chair of the 8th Workshop on Argument Mining 2021.argmining.org

Tutorial Co-presenter of the 'Argumentation Technology for Al' tutorial in the 43rd German Conference

on Artificial Intelligence, 2020

Shared Task Co-organiser of the 'Same-Side Stance' shared task on ArgMining workshop, 2019.

3 3 Student Supervision

2015-2020 Student Projects Supervisor

Bauhaus-Universität Weimar, Germany

- 1. Arguments from Email Data. (Winter 2019)
- 2. Augmented Writing Platform for Blog Posts. (Summer 2019)
- 3. The Argument Search Engine. (Summer 2017)
- 4. Identifying Hate Speech. (Winter 2016)
- 5. Automatic Detection of Evidence in Natural Language Text. (Summer 2016)
- 6. Statistical Classification of Argumentative Essays. (Winter 2015)
- 7. This is Offensive Language. (Summer 2015)
- 8. Modeling Information Extraction Problems using Argumentation Theory. (Winter 2014)

2015-2020 Student Theses Supervisor

Bauhaus-Universität Weimar, Germany

Ongoing Theses:

- 1. Vishal Khanna. Identifying Debating Strategies in Persuasive Discussions (Master Thesis)
- 2. Christian Staudte. Building a Large-scale Argumentation Graph (Master Thesis)
- 3. Eric Schmidt. Identifying Debating Strategies on Wikipedia (Bachelor Thesis)
- 4. Lukas Göhlich. Detecting Bias in Media (Bachelor Thesis)
- 5. Lucy Betke. Detecting Bias in Summarization (Bachelor Thesis)

Completed Theses:

- 1. Lucky Chandrautama. Linking Argumentative Concepts in Argumentation Graphs. (Bachelor Thesis)
- 2. Dipendra Sharma Kafle. Style-based Analysis of Persuasive Strategies. (Master Thesis)
- 3. Johanna Sacher. Paraphrasing Texts for Conversational News. (Bachelor Thesis)
- 4. Fan Fan: Mining High-ethos Evidence from Wikipedia. (Master Thesis)
- 5. Fatema Merchant: Neural Paraphrasing Methods for Augmented Writing Tools. (Master Thesis)
- 6. Anh Phuong Le, Harvesting the Web for Building Large-scale Argumentation Graphs. (Master Thesis)
- 7. Lukas Trautner, Exploiting Argumentation Knowledge Graphs for Argument Generation. (Bachelor Thesis)

- 8. Nikolay Kolyada, Author or Argumentation: Exploring the Effect of Prior Beliefs and Personality Traits on Persuasion Success in On-line Discussion Forums. (Master Thesis)
- 9. Viorel Morari, Mining Rhetorical Devices by means of Natural Language Processing. (Master Thesis)

Datasets

- 1. ACL-20. Webis-Email-20. Size: 2MB, 5K text segments. Area: Computational Argumentation
- 2. ACL-20. Webis-ChangeMyView-20. Size: 2MB, 5K text segments. Area: Computational Argumentation
- 3. ACL-20. Webis-Reddit-20. Size: 2MB, 5K text segments. Area: Computational Argumentation
- 4. AAAI-20. Webis-EffectRelation-20. Size: 2MB, 5K text segments. Area: Computational Argumentation
- 5. CoNLL-18. Webis-Editorial-Quality-18. Size: 3MB, 1K documents. Area: Computational Argumentation
- 6. ACL-18. Webis-WikiDebate-18. Size: 78MB, 6M discussions. Area: Computational Argumentation
- 7. ACL-18. Webis-WikiDiscussions-18. Size: 4GB, 6M discussions. Area: Computational Argumentation
- 8. NAACL-16. Webis-Debate-16. Size: 908 KB, 27K text segments. Area: Computational Argumentation
- 9. COLING-16. Webis-Editorials-16. Size: 5MB, 300 documents. Area: Computational Argumentation

>>> Skills

▶ Programming: Python, Java, working in UNIX/LINUX and Windows environments

NLP Tools: Scikit-learn, Pandas, NumPy, Stanford NLP, Lucene ...

▶ Languages: Arabic, English, German

> > > Publications

Conference Publications:

- 1. **Khalid Al-Khatib**, Lukas Trautner, Henning Wachsmuth, Yufang Hou and Benno Stein. Employing Argumentation Knowledge Graphs for Neural Argument Generation. In the Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (*ACL-IJCNLP*). To be appeared.
 - Acceptance rate: xx%, CORE rank: A*.
- 2. Shahbaz Syed, **Khalid Al Khatib**, Milad Alshomary, Henning Wachsmuth and Martin Potthast. Generating Informative Conclusions for Argumentative Texts. In the Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (*ACL-IJCNLP Findings 21*). To be appeared.
 - Acceptance rate: xx%, CORE rank: A*.
- 3. Shahbaz Syed, Roxanne El Baff, **Khalid Al-Khatib**, Johannes Kiesel, Benno Stein and Martin Potthast. News Editorial: Towards Summarizing Long Argumentation Texts. In the 28th International Conference on Computational Linguistics (*COLING 20*).
 - Acceptance rate: 33.4%, CORE rank: A.
- 4. Wei-Fan Chen, **Khalid Al-Khatib**, Benno Stein and Henning Wachsmuth. Detecting Media Bias in News Articles using Gaussian Bias Distributions. In the 2020 Conference on Empirical Methods in Natural Language Processing (*EMNLP Findings 20*).
 - Acceptance rate: 36%, CORE rank: A.
- 5. **Khalid Al-Khatib**, Michael Völske, Shahbaz Syed, Nikolay Kolyada, and Benno Stein. Exploiting Personal Characteristics of Debaters for Predicting Persuasiveness. In the 57th Annual Meeting of the Association for Computational Linguistics (ACL 20)
 - Acceptance rate: 22.7%, CORE rank: A*.
- 6. Janek Bevendorff, **Khalid Al-Khatib**, Martin Potthast, and Benno Stein. Crawling and Preprocessing Mailing Lists At Scale for Dialog Analysis. In the 57th Annual Meeting of the Association for Computational Linguistics (*ACL 20*). Acceptance rate: 22.7%, CORE rank: A*.

- 7. Roxanne El Baff, Henning Wachsmuth, **Khalid Al-Khatib**, and Benno Stein. Analyzing the Persuasive Effect of Style in News Editorial Argumentation. In the 57th Annual Meeting of the Association for Computational Linguistics (*ACL 20*). Acceptance rate: 22.7%, CORE rank: A*.
- 8. **Khalid Al-Khatib**, Yufang Hou, Henning Wachsmuth, Charles Jochim, Francesca Bonin, and Benno Stein. End-to-End Argumentation Knowledge Graph Construction. In the 34th AAAI Conference on Artificial Intelligence (*AAAI 20*). Acceptance rate: 20.6%, CORE rank: A*.
- 9. Roxanne El Baff, Henning Wachsmuth, **Khalid Al-Khatib**, Manfred Stede, and Benno Stein. Computational Argumentation Synthesis as a Language Modeling Task. In the 12th International Natural Language Generation Conference ((INLG 2019).

CORE rank: B.

 Khalid Al-Khatib, Henning Wachsmuth, Kevin Lang, Jakob Herpel, Matthias Hagen and Benno Stein. Modeling Deliberative Argumentation Strategies on Wikipedia. In Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics (ACL 18).

Acceptance rate: 25.3%, CORE rank: A*.

11. Roxanne El Baff, Henning Wachsmuth, **Khalid Al-Khatib**, and Benno Stein. Challenge or Empower: Revisiting Argumentation Quality in a News Editorial Corpus. In the 22nd Conference on Computational Natural Language Learning (*CoNLL 2018*).

Acceptance rate: 20.8%, CORE rank: A.

- 12. Wei-Fan Chen, Henning Wachsmuth, **Khalid Al-Khatib**, and Benno Stein. Learning to Flip the Bias of News Headlines. In the 11th International Natural Language Generation Conference (*INLG 2018*). Acceptance rate: 60%, CORE rank: B.
- 13. Henning Wachsmuth, Manfred Stede, Roxanne El Baff, **Khalid Al-Khatib**, Maria Skeppstedt and Benno Stein. Argumentation Synthesis following Rhetorical Strategies. In Proceedings of the 27th International Conference on Computational Linguistics (*COLING 18*).

Acceptance rate: 37.4%, CORE rank: A.

14. **Khalid Al-Khatib**, Henning Wachsmuth, Matthias Hagen, and Benno Stein. Patterns of Argumentation Strategies across Topics. In the 2017 Conference on Empirical Methods in Natural Language Processing (*EMNLP 17*), pages 1362-1368, Association for Computational Linguistics.

Acceptance rate: 18.4%, CORE rank: A.

15. **Khalid Al-Khatib**, Henning Wachsmuth, Johannes Kiesel, Matthias Hagen, and Benno Stein. A News Editorial Corpus for Mining Argumentation Strategies. In Proceedings of the 26th International Conference on Computational Linguistics (*COLING 16*), pages 3433-3443.

Acceptance rate: 32.4%, CORE rank: A.

- Henning Wachsmuth, Khalid Al-Khatib, and Benno Stein. Using Argument Mining to Assess the Argumentation Quality of Essays. In the 26th International Conference on Computational Linguistics (COLING 16), pages 1680-1692.
 Acceptance rate: 32.4%, CORE rank: A.
- 17. **Khalid Al-Khatib**, Henning Wachsmuth, Matthias Hagen, Jonas Köhler, and Benno Stein. Cross-Domain Mining of Argumentative Text through Distant Supervision. In the 15th Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (*NAACL 16*), pages 1395-1404, Association for Computational Linguistics.

Acceptance rate: 25.3%, CORE rank: A.

18. **Khalid Al-Khatib**, Hinrich Schütze, and Cathleen Kantner. Automatic Detection of Point of View Differences in Wikipedia. In the 24th International Conference on Computational Linguistics (*COLING 12*), pages 33-50, 2012. Acceptance rate: 27%, CORE rank: A.

Workshop Publications:

- Khalid Al Khatib, Tirthankar Ghosal, Yufang Hou, Anita de Waard and Dayne Freitag. Argument Mining for Scholarly Document Processing: Taking Stock and Looking Ahead. Second Workshop on Scholarly Document Processing (SDP 2021) at NAACL 2021. To be appeared.
- 2. **Khalid Al-Khatib**, Viorel Morari and Benno Stein. Style Analysis of Argumentative Texts by Mining Rhetorical Devices. In the Seventh Workshop on Argument Mining (*ArgMining 20*) at COLING 2020. (Nominated for the best paper award).
- 3. Roxanne El Baff, **Khalid Al-Khatib**, Benno Stein and Henning Wachsmuth. Persuasiveness of News Editorials depending on Ideology and Personality. In the Third Workshop On Computational Modeling Of People's Opinions, Personality, And Emotions In Social Media (*PEOPLES 2020*) at COLING 2020.

- 4. Wei-Fan Chen, **Khalid Al-Khatib**, Benno Stein, and Henning Wachsmuth. Analyzing Political Bias and Unfairness in News Articles at Different Levels of Granularity. In the Fourth edition of the Natural Language Processing and Computational Social Science workshop (*NLP+CSS 2020*) at EMNLP 2020.
- 5. Wei-Fan Chen, **Khalid Al-Khatib**, Matthias Hagen, Henning Wachsmuth, and Benno Stein. Unraveling the Search Space of Abusive Language in Wikipedia with Dynamic Lexicon Acquisition. In the second Workshop on NLP for Internet Freedom (*NLP4IF 2019*) at EMNLP, November 2019.
- 6. Henning Wachsmuth, Martin Potthast, **Khalid Al-Khatib**, Yamen Ajjour, Jana Puschmann, Jiani Qu, Jonas Dorsch, Viorel Morari, Janek Bevendorff, and Benno Stein. Building an Argument Search Engine for the Web. In the Fourth Workshop on Argument Mining (*ArgMining 17*), pages 49–59, 2017.
- 7. **Khalid Al-Khatib**. The Web as a Corpus of Argumentation. In: Report of Dagstuhl Seminar on *Debating Technologies* (15512), vol. 5, no. 12, p. 22-22, 2015. http://www.dagstuhl.de/15512.
- 8. **Khalid Al-Khatib** and Noam Slonim. Computational Argumentation Competitions and Data. In: Report of Dagstuhl Seminar on *Debating Technologies* (15512), vol. 5, no. 12, p. 39-40, 2015. http://www.dagstuhl.de/15512.
- 9. Johannes Kiesel, **Khalid Al-Khatib**, Matthias Hagen, and Benno Stein. A Shared Task on Argumentation Mining in Newspaper Editorials. In the second Workshop on Argumentation Mining (*ArgMining 15*), pages 35-38, Denver, Colorado, 2015. Association for Computational Linguistics.

Demo Publication:

1. Johannes Kiesel, Henning Wachsmuth, **Khatib Al-Khatib**, and Benno Stein. WAT-SL: A Customizable Web Annotation Tool for Segment Labeling. In the 15th Conference of the European Chapter of the Association for Computational Linguistics (*EACL 17*), pages 13-16, April 2017.

▶ ▶ References

- Prof. Dr. Benno Stein
 Chair of the Web Technology and Information Systems group at Bauhaus-Universität Weimar benno.stein@uni-weimar.de
- 2. Prof. Dr. Matthias Hagen Chair of the Big Data Analytics group at Martin Luther University Halle-Wittenberg matthias.hagen@informatik.uni-halle.de
- Dr. Anita de Waard VP Research Collaborations at Elsevier A.dewaard@elsevier.com
- 4. Junior-Prof. Dr. Henning Wachsmuth
 Chair of the Computational Social Science group at Paderborn University
 henningw@upb.de
- 5. Junior-Prof. Dr. Martin Potthast Chair of the Text Mining and Retrieval group at Leipzig University martin.potthast@uni-leipzig.de