

Computational Linguistics and Intellectual Technologies:  
Proceedings of the International Conference “Dialogue 2019”

Moscow, May 29—June 1, 2019

## INTERPRETABLE ADAPTIVE LANGUAGE TECHNOLOGY

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In this talk, I motivate a shift from the traditional Train/Dev/Test Machine Learning setups, which do not account for concept drift and aim at a one-size-fits-all solution, towards user-adaptive language technology that incrementally learns from direct and indirect feedback.

We will take a look at a range of NLP applications that help people perform tasks and at the same time improve via their usage, allowing users to personalize them and tune them to their respective needs. This includes an adaptive annotation tool, a knowledge management browser plugin and an iterative system for learning text simplification.

Finally, I will discuss some general premises and issues of such incremental learning systems, motivating interpretability as one important dimension to facilitate user participation.

### Bio

Chris Biemann obtained his doctorate in Computer Science / Natural Language Processing in 2007 from the University of Leipzig, before joining the San-Francisco-based semantic search startup Powerset, which was acquired by Microsoft to form the Bing.com search engine. In 2011, he got appointed as assistant professor for language technology in the computer science department at TU Darmstadt; since October 2016, Chris is professor for language technology at the University of Hamburg in Germany. His current research is focused on adaptive natural language processing, web-scale statistical semantic methods, machine learning from crowdsourcing signals and on applications in the humanities and social sciences. He has co-authored over 200 publications in the field of natural language processing, many of them in journals such as CL, NLE, LREV and conferences such as ACL, EACL, NAACL, EMNLP and COLING. His research group regularly releases open datasets and open source software to the community and organizes respective shared tasks.