



# Zeitgeist in NLP

ICML Social Event: 2021-07-21, 06:00 p.m. – 08:00 p.m.

Agenda		
<b>Part 1 (Zoom): Panel Discussion with Elevator Pitches</b>		70 min
Short welcome/introduction	Katharina Beckh and Vanessa Faber	5 min
Presentations		
Humans Learn From Task Descriptions. And So Should Our Models!	Hinrich Schütze, MCML	5 min
Linguistic Calibration through Metacognition	Sabrina J. Mielke, John Hopkins University	5 min
Compositionality and Explainability in Deep Visual Learning	Zeynep Akata, Tue.AI Center	5 min
Catching a Unicorn with GLTR	Hendrik Strobelt, MIT-IBM Watson AI Lab	5 min
Audiomining	Christoph Andreas Schmidt, ML2R	5 min
<b>Panel Discussion</b> Moderated by Reinhard Karger, DFKI		45 min
<b>Part 2 (Gather.Town): Gathering with topical tables, AI-center-area and chill-out-zone</b>		
Topical Table 1: <b>Smart Hospital</b> (Katharina Beckh and Sven Giesselbach, ML2R)		
Topical Table 2: <b>ML and NLP in the Digital Humanities</b> (Oliver Eberle and David Lassner, BIFOLD)		



## Participants Panel Discussion

### Zeynep Akata



Zeynep Akata is a professor of Computer Science (W3) within the Cluster of Excellence Machine Learning at the University of Tübingen. After completing her PhD at the INRIA Rhone Alpes with Prof Cordelia Schmid (2014), she worked as a post-doctoral researcher at the Max Planck Institute for Informatics with Prof Bernt Schiele (2014-17) and at University of California Berkeley with Prof Trevor Darrell (2016-17). Before moving to Tübingen in October 2019, she was an assistant professor at the University of Amsterdam with Prof Max Welling (2017-19). She received a Lise-Meitner Award for

Excellent Women in Computer Science from Max Planck Society in 2014, a young scientist honour from the Werner-von-Siemens-Ring foundation in 2019 and an ERC-2019 Starting Grant from the European Commission. Her research interests include multimodal learning and explainable AI.

<https://eml-unitue.de/people/zeynep-akata>

### Oliver Eberle



Oliver Eberle received a Joint M.Sc. in Computational Neuroscience from Technische Universität Berlin and Humboldt Universität zu Berlin in 2017. He is currently pursuing a Ph.D. in the Machine Learning Group at TU Berlin and his research focuses on explainable machine learning and natural language processing.

<https://bifold.berlin/de/person/oliver-eberle/>

### Joseph van Genabith



Prof. Dr. Josef van Genabith is Scientific Director for Language and Multilingual Technologies (MLT) at the German Research Center for Artificial Intelligence (DFKI) and Full Professor and Chair of Translation-Oriented Language Technologies at Saarland University. His research interests focus on multilingual technologies including machine translation, language understanding and language generation.

<https://www.dfki.de/web/ueber-uns/mitarbeiter/person/jova02/>



## Reinhard Karger



Reinhard Karger, M.A., Corporate Spokesman, German Research Center for Artificial Intelligence / Deutsches Forschungszentrum für Künstliche Intelligenz, DFKI, studied theoretical linguistics and philosophy in Wuppertal. He was an assistant at the Chair of Computational Linguistics of Saarland University. Since 1993 he works for the German Research Center for Artificial Intelligence, DFKI, in Saarbrücken and since 2011 he has been the corporate spokesman of DFKI. Reinhard Karger has been working for 35 years in the fields of theoretical linguistics and artificial intelligence, with an interest for philosophy of consciousness, history of science and digital innovation culture.

Reinhard Karger was a member of the jury of the "Excellent Places" competition for over ten years, has been ambassador of "Germany - Land of Ideas" since June 2019 and was appointed to the jury of the German Mobility Award in 2020. From May 2014 to June 2017 he was President of the German Society for Information and Knowledge (DGI). Since February 2017 he has been STEM ambassador for Saarland, in March 2018 he was appointed one of the 100 Fellows of the Competence Centre for Cultural and Creative Industries of the German Federal Government. In addition, he is a jury member of the competitions Kreativsonar (state) and Kreativpiloten (federal government).

<https://www.dfki.de/~karger>

## Sabrina J. Mielke



Sabrina is a PhD student at the Johns Hopkins University and a part-time research intern at HuggingFace, currently researching open-vocabulary language modeling for unit discovery in a variety of typologically varying languages.

Before moving to the US, she received a B.S. and a M.S. from TU Dresden, Germany, writing theses on formal language theory applied to natural language processing, specifically on parsing and grammar-based machine translation. During her PhD she published on morphology, fair language model comparison, stochastic romanization (at Google AI), and metacognition and calibration for chatbots (at Facebook AI Research), and is involved in the BigScience summer of large language models.

Aside from publishing in ACL, NAACL, EMNLP, LREC, and AACL, and reviewing for these conferences as well as NeurIPS, ICML, and ICLR and a number of workshops, Sabrina has co-organized the SIGMORPHON shared task in 2018, 2019, 2020, and 2021 and the SIGTYP 2020 and 2021 shared tasks, and serves as a co-chair in the Widening NLP (WiNLP) initiative.

Sabrina has TA'd a variety of computer science classes in Germany and has TA'd and taught in the US and is currently again teaching JHU's "Artificial Intelligence" class.

These days, Sabrina is generally interested in typologically diverse languages, structured prediction, clean formalisms, neat mathematical models and phenomena, solid engineering, and good teaching. You can find her addicted to Twitter at @sjmielke, and sometimes hear her talk about her secret one true passion: making slides and figures!

<https://sjmielke.com/>



## Christoph Andreas Schmidt



Dr. Christoph Schmidt studied computer science at RWTH Aachen University, Germany, and did his Ph.D. at the chair of Professor Hermann Ney on the topic of machine translation. Since 2014, he has been working as a research scientist at the Fraunhofer Institute for Intelligent Analysis and Information Systems (IAIS). Christoph Schmidt is currently Head of Business Unit “Speech Technologies” and Deputy Head of Department “NetMedia”. His group focuses on the application of speech technologies such as automatic speech recognition, speaker diarization and speaker recognition to the domain of broadcasting.

Research projects participation by Christoph Schmidt and his group includes the projects AXES (2011 – 2015), LinkedTV (2012 - 2015), LiveCaption (2014-2016) and News-Stream 3.0 (2014-2017) and currently SELMA ([selma-project.eu](http://selma-project.eu), 2021-2023), which aims at developing media monitoring systems extracting information across languages by applying multilingual knowledge transfer.

Besides these research efforts, since 2016, Christoph Schmidt led a project to integrate the Fraunhofer Audio Mining System into the archival systems of the public broadcaster ARD, including all regional public German broadcasters, the Deutsche Welle and the Deutschlandradio. The public broadcaster ZDF is also using this system to transcribe radio and television programs. Specific developments for the German public broadcasters include continuously learning systems which catch up with new vocabulary occurring in the news, learning names and entities relevant to regional programs as well as recognition of dialectal speech. Recently, live subtitling has become a prominent application as well.

<https://www.iais.fraunhofer.de/en/business-areas/speech-technologies.html>

## Tobias Schnabel



Tobias Schnabel is a researcher in the Information and Data Sciences group, at Microsoft Research in Redmond. He is interested in improving human-facing machine learning systems in an integrated way, considering not only algorithmic but also human factors.

To this end, his research draws from causal inference, reinforcement learning, machine learning, HCI, and decision-making under uncertainty. His work has often used recommender systems or information retrieval systems as natural application domains.

Before joining Microsoft, he obtained his Ph.D. from the Computer Science Department at Cornell University under Thorsten Joachims.

<https://www.microsoft.com/en-us/research/people/toschnab/>



## Hinrich Schütze



Hinrich Schütze is Professor for Computational Linguistics and director of the Center for Information and Language Processing at the University of Munich (LMU Munich). Before moving to Munich in 2013, he taught at the University of Stuttgart from 2004 to 2012. He worked on natural language processing and information retrieval technology at Xerox PARC, at several Silicon Valley startups and at Google 1995-2004 and 2008/9. After studying computer science and mathematics at Technical University Braunschweig and University of Stuttgart, he received his PhD in computational linguistics from Stanford University in 1995. He is a coauthor of *Foundations of Statistical Natural Language Processing* (MIT Press 1999, with Chris Manning) and *Introduction to Information Retrieval* (Cambridge University Press 2008, with Chris Manning and rahakar Raghavan). He received an Opus Magnum Grant from Volkswagenstiftung in 2015 and a European Research Council Advanced Grant (NonSequeToR: Non-sequence models for tokenization replacement) in 2017. In 2020, he was president of the Association for Computational Linguistics. Ever since starting his PhD in the early 1990s, Hinrich's research interests have been at the interface of linguistics, neural networks and computer science.

<https://www.cis.uni-muenchen.de/personen/professoren/schuetze/>

## Hendrik Strobelt



Hendrik Strobelt is the Explainability Lead at the MIT-IBM Watson AI Lab and Research Scientist at IBM Research. His recent research is on visualization for and human collaboration with AI models to foster explainability and intuition. His work is applied to tasks in machine learning, in NLP, in the biomedical domain, and chemistry. Hendrik joined IBM in 2017 after postdoctoral positions at Harvard SEAS and NYU Tandon. He received a Ph.D. (Dr. rer. nat.) from the University of Konstanz in computer science (Visualization) and holds an MSc (Diplom) in computer science from TU Dresden. He received multiple best paper/honorable mention awards at EuroVis, BioVis, VAST, ACL Demo, and NeurIPS Demo. He received the Lohrmann medal from TU Dresden as the highest student honor. Hendrik has served in program committees and organization committees for IEEE VIS, BioVis, EuroVis. He was the virtual chair for ICLR 2020, Alstats 2020, and Online Experience Chair for NeurIPS 2020. He has been teaching data science at CMU. Hendrik is a visiting researcher at MIT CSAIL.

<http://hendrik.strobelt.com/>