

Linguistic modeling for intelligent systems in open environments

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Machine learning or “AI” has become an important component in technical systems of our everyday lives. Yet, state-of-the-art approaches in machine learning are often designed for very restricted tasks, under the so-called closed world assumption. This does not only limit the usefulness of intelligent systems for humans, but can have harmful consequences when these techniques are used in complex real-world contexts, i.e. open environments. In this talk, I will give an overview of ongoing initiatives that aim at extending the scope and the capabilities of machine learning-based systems with the help of language and dialogue modeling. I will focus on three ongoing/starting projects that have a rather applied perspective (SAIL, Ratio/INAS, NLP4VIS). I will be happy to discuss how foundational research in (computational) linguistics may be connected to issues centered around dealing with uncertainty in AI, and how/whether we envision future collaboration between the linguistic and computer science departments in Bielefeld.