Bachelor/Master Thesis

UBIQUITOUS KNOWLEDGE PROCESSING

TECHNISCHE UNIVERSITÄT DARMSTADT

Generating Creative Language

Motivation

We would like to be able to explore the area of creative argument generation: can we generate creative, humorous, and insightful arguments automatically? Despite recent advances in natural language processing, natural communication with artificial intelligence remains difficult. This is in part because AI systems generally struggle with using and understanding creative language. Creative language (including metaphors, similes, humor and more) is particularly challenging for natural language generation (NLG), the research area that works to automatically generate natural, fluent text. In order to develop friendly, and convincing AI, we need to be able to incorporate creative language into our models of language generation.

Task Description

Creative Language Generation is a new and relatively broad field; the task and scope will be subject to discussion and can be adapted your interests and abilities. Tasks include:

- Evaluate state of the art approaches and datasets used for creative language generation
- Implement baseline models and experiment to improve performance on current tasks
- Explore possibilities for developing new models, as well as novel tasks and datasets, to improve our understanding of creative language processing
- Dive deeply into a particular area of creative language (argumentation, metaphor and other figurative language, humor) and build models to incorporate state of the art results in generation systems

References

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Yonatan Bilu et al. Argument Invention from First Principles, In *Proceedings of the Association for Computational Linguistics*, pages 1013-1026, 2019

Jonas Sjobergh, Kenji Araki. A Complete and Modestly Funny System for Generating and Performing Japanese Stand-Up Comedy. In *Companion Volume to COLING 2008*, pages 111-114. 2008

Analysis	■■■■□
Programming	■■■□□
Literature	■■■■□

Contact

Prof. Dr. Iryna Gurevych

Kevin Stowe, PhD.

thesis@ukp.informatik.tu-darmstadt.de

www.ukp.tu-darmstadt.de