



ifis

Institut für Informationssysteme
Technische Universität Braunschweig



Prompt Tuning or Fine-Tuning - Investigating Relational Knowledge in Pre-Trained Language Models

Leandra Fichtel, Jan-Christoph Kalo, Wolf-Tilo Balke

Institute for Information Systems, TU Braunschweig
Knowledge Representation and Reasoning Group, VU Amsterdam

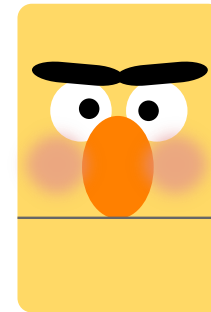
Extracting Relational Knowledge

- extraction from pre-trained language models
- cloze-style queries
- e.g. triple fact (Berlin; country; Germany)



Berlin lies in [MASK].

Berlin lies in Germany.



Prompts?!

- [subject] lies in [object].
- [subject] lies in the country of [object].
- ...

Which one is the best?

Our approach: BERTriple

- simple prompts: [subject] country [object].
- fine-tune the language model

- significantly outperforms all baselines
- about 48% precision
- less training data required