Evaluating knowledge models for natural language understanding

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Description / Deskribapena

Recent attempts to integrate commonsense in language models learn <subject, relation, object> triplets from hand-made knowledge graphs. They train pre-trained language models using the masked language model approach, converting the language model in a knowledge model. Those knowledge models are evaluated on knowledge graphs, checking their capacity to produce new triplets. However, we think that commonsense is very important for natural language understanding, so we would like to see whether those knowledge models do actually improve the performance of language models for natural language understanding tasks.

Goals / Helburuak

To evaluate different knowledge model approaches in natural language understanding tasks.

Requirements / Betebeharrak

None.

Framework / Esparrua

Python, Tensorflow/Pytorch

Tasks and plan / Atazak eta plana

Analyze different knowledge model approaches.

Analyze different knowledge graphs..

Check the viability and necessity to train new knowledge models.

Analyze and select meaningful natural language understanding tasks and datasets, including abductive NLI

Evaluate the performance of selected language and knowledge models.

Interpret the obtained results and their significance.