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Revisiting the process of Knowledge Graph generation with the integration of LLMs

In recent years, the advent of Large Language Models (LLMs) has transformed both natural language processing (NLP) and knowledge representation. With vast pre-trained parameters and advanced neural architectures, these models show remarkable results in generating human-like text. In knowledge representation, ontologies serve as fundamental frameworks for organizing and representing knowledge across domains. These structured frameworks serve as the basis for constructing comprehensive knowledge graphs (KGs). KGs, in turn, provide a robust mechanism for linking diverse information and enabling sophisticated data analytics and reasoning. Creating ontologies and KGs require considerable time and effort, typically involving domain expertise and many design decisions. In this poster, we explore the use of LLMs for creating KGs. We present our semi-automatic pipeline for KG construction for the deep learning techniques used in scholarly publications in the biodiversity domain, with the use of open-source LLMs. We present our insights and challenges in the automatic construction of knowledge engineering in terms of prompt sensitivity, and repetitive and inaccurate answers.

Type of Poster

A challenge

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