

Title : The Development of a Model for Predicting the Type of a Given Term for Use in Ontology Construction

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ABSTRACT

The LLMs4OL Challenge @ ISWC 2024 aims to explore the intersection of Large Language Models (LLMs) and Ontology Learning (OL) through three main tasks: 1) Term Typing, 2) Taxonomy Discovery and 3) Non-Taxonomic Relation Extraction. In this project, we present our system's design for the term typing task. Our approach utilizes automatic prompt generation using soft prompts to enhance term typing accuracy and efficiency. We conducted experiments on several datasets, including WordNet, UMLS, GeoNames, NCI, MEDCIN, and SNOMEDCT US. Our approach outperformed the baselines on most datasets, except for GeoNames, where it faced challenges due to the complexity and specificity of this domain, resulting in substantially lower scores. Additionally, we report the overall results of our approach in this challenge, which highlight its promise while also indicating areas for further improvement.

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