

Preface for LLMs4OL 2024: The 1st Large Language Models for Ontology Learning Challenge at the 23rd ISWC

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We are pleased to present the proceedings of the “1st Large Language Models for Ontology Learning Challenge (LLMs4OL 2024)”, held at the 23rd International Semantic Web Conference (ISWC). This challenge marks a significant advancement in utilizing Large Language Models (LLMs) for Ontology Learning (OL)—a key Semantic Web component that facilitates the automatic extraction of structured knowledge from unstructured data. The challenge features three main tasks: *Term Typing* (identifying categories for terms), *Taxonomy Discovery* (uncovering hierarchical relationships), and *Non-Taxonomic Relation Extraction* (identifying other meaningful relationships between terms). Each task is designed to test different facets of ontology construction and to encourage the exploration of innovative techniques. This challenge seeks to foster collaboration, inspire innovation, and expand the capabilities of LLMs in OL. The proceedings include a collection of innovative solutions and insights from global participants, highlighting the crucial role of LLMs in enhancing the web with structured knowledge. We believe the outcomes of this challenge will propel further advancements in OL and its applications on the semantic web.

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