Generating description logic $\mathcal{ALC}$ from text in natural language.

Summary: In this paper, we present a natural language translator for expressive ontologies and ensure that it is a viable solution to the automated acquisition of ontologies and complete axioms, constituting an effective solution for automating the expressive ontology building process. The translator is based on syntactic and semantic text analysis. The viability of our approach is demonstrated through the generation of descriptions of complex axioms from concepts defined by users and glossaries found at Wikipedia. We evaluated our approach in an initial experiment with entry sentences enriched with hierarchy axioms, disjunction, conjunction, negation, as well as existential and universal quantification to impose restriction of properties.

Keywords: Description Logic (DL); Ontology; Ontology Learning; PLN

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