

Adaptation of Ontological Knowledge from Structured Textual Data

Ontologies play currently an important role in text technology. Furthermore, their future importance for text technological applications cannot be overestimated. Whereas the population of ontologies is often considered as a learning problem of a certain conceptualization by extracting semantic concepts and relational constraints on concepts from structured and unstructured data, the maintenance of ontological knowledge in terms of coherence and consistency can be conceived as an ongoing adaptation process. We present results concerning the logical characterization of syntactic and semantic knowledge of structured textual data, as well as rewriting procedures applied to logically represented ontological knowledge for resolving occurring inconsistency problems. The presentation will cover both, theoretical aspects of adequately representing syntactic and semantic properties, as well as practical aspects in the adaptation process of ontological knowledge based on input from structured textual data.