

Evolution and merging of real-life ontologies

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Ontologies are in wide-spread use in diverse domains. In life sciences, many large ontologies are used to annotate biomedical entities and perform analysis tasks such as functional profiling or term enrichment. On the web, simple ontologies such as web directories or product catalogs are heavily used for improved content categorization and search. These ontologies are subject to significant reorganizations and other evolutionary changes. There is thus an increasing need to better deal with ontology evolution, in particular to support the automatic detection of evolution mappings and to automate the migration of ontology instances and ontology-based mappings. Another common task is to combine or merge multiple related ontologies. In the talk we present new Match-based approaches to determine a Diff and a Merge between ontologies. The proposed COnToDiff scheme is rule-based and determines compact evolution mapping consisting of expressive change operations. We also point out open challenges for future work.

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