Abstract

In the context of ontology evolution in real world applications, particularly in the field of semantic web, ontologies are called to change in their structure as well as their semantic. It is necessary to evaluate the quality based on stability to make analysis to get appropriate enrichment manner for ontology evolution. In this paper, we introduce a new approach with that aims making three contributions. First, we present a new aspect of ontology quality based on its stability. Second, we present a new notion called ontology spectrum which can be used for analyzing ontology stability. Third, we provide an experimental method to evaluate this new aspect of quality within two processes: individual measure based on semantic similarity measures and global measure based on ontology spectrum.
A Novel Global Measure Approach based on Ontology Spectrum to Evaluate Ontology Enrichment


Index Terms

Computer Science
Information Sciences

Keywords

Ontology evaluation semantic similarity measure ontology enrichment ontology quality ontology stability