Abstract

Traditional search is keyword based search and does not focus on relationship between the words. In semantic search, the search is performed on basis of the meaning of the terms and concepts. The semantics i.e. meaning is expressed through structured knowledge representation or Ontologies. Resource Description Framework (RDF) is used as the data model and SPARQL query language is used to query the RDF data. Currently, there is lot of RDF based data set, e.g. Dbpedia, Freebase, Geonames etc. Semantic search is gaining popularity in recent times. As systems cannot exist in isolation but need to interact with each other, complex systems may require integration of multiple systems. Semantic search systems may take input from heterogeneous systems, in which case, the common and shared entities have to be identified and mapped properly. Also, in semantic search, user has to enter query in formal query language SPARQL, which is quite difficult to learn and use for laymen. We are presenting herewith, an application in which we have constructed multiple ontologies that are inherently unique but are related to each other. The system performs ontology alignment to allow for inter-operation between them. Also, it provides a natural language query (NLQ) interface. It converts the Natural Language (NL) input to SPARQL query. It answers queries
Semantic Search based on Ontology Alignment for Information Retrieval

across these multiple ontologies and abstracts them as a single linked unit. Currently, it is working for simple as well as some type of complex queries.

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Index Terms

Computer Science Information Science

Keywords

Domain based ontology Ontology alignment OWL RDF SPARQL Triple store