Abstract

Semantic Web is a Web that adds more meaning to the Web documents in order to access knowledge instead of unstructured material and also allowing knowledge to be processed automatically. One of the methods to achieve this is of using Ontology. The Ontology defines the terms and the relations among the terms on a domain. There are number of Ontology repositories present. When this increases day by day, the need for getting relevant ontology for the search keyword also increases. Even though there are number of semantic web search engines, Swoogle is placed first, which ranks the ontologies using an adaptation of Google’s Page Rank scoring method. A major drawback with this system is that many ontologies are poorly inter-referenced, which does not reflect the quality of the ontologies. This paper reviews the methodologies used in Swoogle for computing rank score and proposes Semantic Closeness Measure (SCM) which has not been employed in any other ontology ranking algorithms. This work develops a hybrid ranking system to rank the ontologies better than Swoogle and other ontology search engines. The results confirm that the proposed system places the highly relevant and quality ontologies on the top list by reranking the Swoogle’s results. This ranking framework enables the searcher to get relevant results quickly and reduces time in searching the long list of results.
A Novel and Hybrid Ontology Ranking Framework using Semantic Closeness Measure

References

- Harith Alani, Christoper Brewster and Nigel Shadbolt, 2007, "Ranking Ontologies with AkTive Rank&quo;.
- Matthew Jones, Harith Alani, July 2006, "Content-based Ontology Ranking&quo;,
9th International Protégé Conference.
- Edward Thomas, Harith Alani, Derek Sleeman, Christopher Brewster, 2007, "Searching and Ranking Ontologies on the Semantic Web&quo;.
- Wei Yu, Junpeng Chen, 2009, "Ontology Ranking For the Semantic Web&quo;,
Third International Symposium on Intelligent Information Technology Application.
- Vandana Dhingra, Apeejay Stya University, India & Komal Bhatia, YMCA University of Science and Technology, India, "Comparative Analysis of Ontology Ranking Algorithms&quo;,

Index Terms

Computer Science

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Keywords
| Semantic Web | Semantic Search | Ontology | Ontology Ranking | Semantic Closeness Measure |