Abstract

In the era of Semantic Web, organization of the necessary Semantic Information becomes quite vital for improving overall retrieval efficiency of the Semantic Web contents. Ontologies are one of the most important and yet the most primary entities of the semantic web which is used for representing and modeling knowledge. Authoring of ontologies must be done in a highly systematic and an organized manner in order to validate the correctness of the ontologies authored. Several traditional ontology authoring systems are based on Semantic Wikis which use graphs to store the ontological entities that increase the overall complexity of ontologies which needs to be overcome. A Hash Table based ontology organization strategy is proposed which is further empowered by a Semantic Latent Analysis to compute the ontological relevance. Several agents are incorporated to check the correctness of ontologies. The proposed framework is further enhanced with Content Based Filtering for yielding better results. The proposed methodology yields an accuracy percentage of 88.99.
A Hybridized Framework for Ontology Modeling incorporating Latent Semantic Analysis and Content based Filtering

References


Index Terms

Computer Science

Information Sciences
Keywords

Content Based Filtering, Hash Table, Knowledge Modeling, Ontologies, Semantic Latent Analysis, Semantic Web