

Information Retrieval based on Ontology

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Presentation : Oral

Suggested topic: Database, Information retrieval

Abstract

With the growth of the number of Internet site, it takes much time to search and collect information. Moreover, current information retrieval techniques are unable to exploit the semantic knowledge within documents and hence cannot give precise answer to precise questions. In this reason, Semantic Web enters an appearance, which provides a common framework that allows data to be shared and reused. In order to realize Semantic Web, it is necessary to construct ontology which is defined as the concepts and relations representing knowledge about a particular document in domain specific terms. In this paper, to provide useful information for delivery company's marketing, we generate the local and item ontology by the topic map model of ISO standard to efficiently search the information of shopping site. And then we design and implement the information retrieval system based on the ontology. The topic map is a model which specifies the concept of topics and defines the association relationship between the topics. The created local ontology is used for searching the address of shopping sites and the created item ontology is used for searching the product of shopping sites. In order to extract basic information of shopping sites in the web, we use a searching agent which visits all of linking site by starting with initial URL address. And also, to prove the validity of our proposal, we show the example of retrieval result based on the ontology, through the implemented ontology and web searching agent.