A Study of Ontology-Based Semantic Retrieval System — A Case of Campus Archives and Statute

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ABSTRACT

At present, the numbers of school ’ s archives are still enormous. Most of archival retrieval system are yet limited in keywords matching method and will lead the inexact document data which user need. The purpose of this study is to propose a semantic analysis schema of archival retrieval system based on ontology concept. This could help the user to obtain the needed data precisely, up raising the efficiency of school administration and the management of knowledgeable archives. The designs of archival retrieval system are including three parts. They are pre-process, archival ontology, search engine. The user directly interacts with the system by interface. Besides, the ontology is established by the National Archives Administration of school institution file classification table in Protege-2000 ontology development platform. The search engine will find out the phrase, its meaning is the same as retrieval term, further transforming the retrieval term into category number which belongs to synonym, and then using SQL syntax for database searching. The concrete contributions of proposed archival retrieval system are as follows: (1) The archival retrieval schema based on ontology, raise up the system retrieval level from string search to semantic search. Therefore, users can get archival services more precisely. (2) As uploading archives, users could input the representative phrase for index term in the archive and increase the searching speed. (3) When the archive crosses two categories simultaneously, we can add another sub-category numbers in order to discover the archive data crosses categories. The system we -vproposed are appraised for verifying its rationality and the results show it surely could effectively promote the accuracy of archival retrieve

Keywords : Ontology, School Institution File Classification Table, Retrieval System, Semantic Search, Index Term

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