NATURAL LANGUAGE QUESTION ANSWERING SYSTEM FOR LOCATING RESOURCES IN AN E-LIBRARY

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Library is the heart of a university and most of the students spend a large amount of time in library in searching of knowledge. In a library, there are a large number of resources in printed form or electronic form such as e-books and e-journals etc.. Users do not know the mechanism of selecting the appropriate e-resource to the reference. Even, if we are categorizing the e-resources subject wise, they contain several materials in a particular subject and there can be several numbers of such subjects.

When a user wants a brief answer for a question or most suitable source to extract the answer, he should search the entire source documents in a particular category. It will take more time and some time the required answer may not be available in some documents.

The problem is solved by introducing an e-library management system in a university and accessing information by processing natural language questions through the system which stores all the electronic resources. This is achieved by narrow down the search space by looking at the index or abstracts of the resources and look for answers by matching required question with narrowed down resources.

Our approach is a cluster based retrieval in which matching a query against clusters of documents instead of individual documents and find a suitable clustering algorithm among K-means, Hierarchical, EM and Cobweb algorithms for the selected domain. Finally, K-Means algorithm shows highest accuracy, few iterations and less time for document classification and it is selected to construct clusters for the problem domain.