

# Using Rough Set Theory to Construct E-Learning FAQ Retrieval Infrastructure

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## Abstract

We propose a framework of e-Learning FAQ (frequently asked questions) retrieval system by applying hierarchical agglomerative clustering method and rough set theory. We try to provide a possible solution to improve the learning performance of e-Learning system. The clustering method and FAQ collection are used to construct a FAQ clustering concept hierarchy. Then, we use lower/upper approximations in rough set theory to classify users' queries. The rough set theory can help solve uncertain problem well. Finally, the relevant FAQs for the user query are generated. The relevant FAQs are those in the cluster to which the user query is assigned.

Keyword : e-learning, Frequently asked questions, Hierarchical agglomerative clustering method, Rough set theory, Concept hierarchy