Abstract

Ontologies currently are a hot topic in the areas of Semantic Web. The current clustering research emphasizes the development of a more efficient clustering method and mainly focuses on term weight calculation without considering the domain knowledge. This paper investigates how ontologies can also be applied to the clustering process. To complement the traditional
clustering method, more informative features including concept weight are important based on recent developments in the area of the Semantic technologies. The proposed system presents the concept weight for text clustering system developed based on a k-means algorithm in accordance with the principles of ontology so that the important of words of a cluster can be identified by the weighted values. To a certain extent, it has resolved the semantic progeny in specific areas. The experimental results performed using dissertations papers from Google Search Engine and the proposed method demonstrated its effectiveness and practical value.

Reference

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Index Terms

Computer Science
Semantic Web

Key words

Clustering
Concept Weight
Document clustering
Feature Selection
Ontology