Improving Web Search Results by removing Outliers using Data Mining Techniques

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Abstract

Many users access the web seeking for information. They put their query or question in search engines that may returns irrelevant pages or results compared to users' needs. This research paper proposes a model to remove outliers from the search results. The proposed model is based on association rules, modified Naïve Bayes algorithm and clustering techniques. The Naïve Bayes algorithm is modified to help removing outliers from the search results. The proposed model has been evaluated using the Sum of Squared Errors (SSE), silhouette coefficient and entropy evaluation measures against the standard k-medoids algorithm. Experimental results show that the proposed model outperforms the standard k-medoids clustering algorithm in removing the search outliers.

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**Index Terms**

Computer Science  Information Sciences

**Keywords**

Information Retrieval (IR), Web mining, Association rules (AR), Classification, Clustering, Outlier detection.