

Abstract

The increasing of information needs insist the way to get the fast and exact information. The information retrieval system was assisted to solve these problem.

Indexing and matching are two important process that would cultivate query and document collection in order to give the exact return hits. KL-divergence is a methode that could be used in matching or retrieve process. This method counts the closeness between document and query, therefore the system could give the relevance documents for the user. From the result of indexing process, KL-divergence counts the closeness between document and query that have been indexed by term model and dependency language model. From these two score of the closeness, the result would be accumulated with linear interpolation method, therefore the total score could be retrieve.

By implemented KL-divergence with linear interpolation method, the higher precision could be reached from the lowest amount of document collection. The highest precision is in 100 document collection, that is 13.57%, and higher recall could be reached from the highest amount of document collection. The highest recall is in 1033 document collection, that is 93,30%. Higher IAP could get from the lowext amount of λ , that is $\lambda=0.1$, IAP = 61.42%.

Keyword : information retrieval, KL-divergence, dependency language model.