

Abstract

In Information Retrieval (IR) system, the system effectiveness is influenced by how user formulates a query as representation of their need. In some case, user can't formulate query specifically until obtained information that is not suitable with user need. Because of that, needed an information retrieval system which can modify user query automatically. It can be done using a technique called manual relevance feedback used query expansion method.

This final project explains the influence of relevance feedback with positive query expansion using local information in Bayesian Network Retrieval Model (BNRM) at precision, recall and response time of the system. It implements topology three layer nodes BNRM, with two layer term nodes to determine relationship each term in the collections and a layer documents node. This technique is tested using standard collection documents for information retrieval from SMART.

With respect to the experiment done in this final project, IR system using RF give increasing value of AIP and response time if compared with IR system without RF. The biggest increasing value of AIP is obtained from Crn data collection as much as 57, 26 % or 26, 04 point and response time biggest increasing value is obtained from combine data of med_crn using query for medical documents collection as much as 217,903 % atau 392,748 second. It is obtained, if the documents number that is evaluated as feedback is fifteen documents.

Documents preprocessing, include term indexing and counting term appearances is done by an indexing tool. So it is outside the final project.

Keywords: Information retrieval, relevance feedback, queries.