

EXTENDED BOOLEAN INFORMATION RETRIEVAL MODEL USING P-NORM AND BELIEF REVISION

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Abstract

Extended Boolean Model is introduced to intermediate between the Boolean system of query processing and the vector-processing model. The query structure inherent in the Boolean system is preserved, while at the same time weighted term may be incorporated into both queries and stored documents. The retrieved output can also be ranked in strict similarity order with the user queries. Belief Revision is a logical framework in which documents and queries are represented by propositional formulas. Disjunctive Normal Form (DNF) is used to represent documents and queries in the Belief Revision. The purpose of this research is to implement Extended Boolean Model using P-Norm Model and Belief Revision for documents in Bahasa Indonesia. This testing used 30 queries from a thousand agricultural documents and 13 queries from 93 medicinal plants documents. The test result shows that the use of medicinal plants documents is better than agricultural documents. This is due to agricultural documents which have a high similarity between documents. The performance of information retrieval with P-Norm Model and Belief Revision gave good result which is around 81% average precision for medicinal plants documents and 54% for agricultural documents.