

ABSTRACT

Social media is used as the main reference in accessing information because it is more informative. One of the social media that is in demand is Twitter. Twitter is in demand because of the media that can provide short, solid and clear information. Twitter, which can only have 140 characters in each post, while the information to be submitted is quite a lot, it needs an alternative by using additional links to get more complete information. Information searching on Twitter does not involve the relevance of the information you want to search, only provides the ability to search by keywords.

As the solution of the limitedness, ontology can be used as representations of data and information. Ontology is a formal representation of knowledge through a collection of concepts on a domain and the relationship between concepts. Ontology can describe a domain by dividing it into several concepts and describing its relation. In other words, an ontology provides a knowledge representation to get the use of semantic search to perform a search on the World Wide Web in the presence of hyperlinks leading to the desired information.

The purpose of this research is to apply ontology in improving information search performance on Twitter data and performance analysis of search results. Evaluation metrics is used to measure the search performance. The result of this study is the design of information retrieval system on the data of Twitter in real-time with ontology with the value of F1-Measure 92%, while the search for information without ontology is only 28%.

Keyword: ontology, real-time, searching, semantic, social media.