Abstract

In the Muslim holy book, Al-Qur'an contains translation parts that have semantic similarities between different pages. In understanding the semantic similarities and knowing the relevance of the parts of the translation of Al-Qur'an is not something that is easy and fast, the semantic similarity in Al-Qur'an is quite difficult to understand because of its very complex meaning. The problem that will be raised in this final project is how to find out the semantic similarity value of the translation pages of Al-Qur'an with other pages. By applying the latent semantic analysis method, which is assisted by singular value decomposition techniques and low rank approximation, it is expected to help in finding pairs that have semantic similarities. In looking for semantic similarity values, latent semantic analysis uses cosine similarity calculations. The dataset used in this research is the translation of Al-Qur'an in English, with the output of the system that is the level of similarity of two or more pages that are paired. From the results of testing that by using the maximum dimension or parameter of Rank K, accuracy and F-measure are 100%. If the smaller dimensions or the Rank K parameters used are the minimum, the semantic similarity value will be even greater and more diverse and increasingly irrelevant to dataset of predefined page pairs.

Keywords: Al-Qur'an Translation, Latent Semantic Analysis, Cosine Similarity

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