

Abstract

The automatic text summarization is the process of taking the most important information from a text or some text to create a brief version of that text to fulfill user's need or any tasks required using a computer-based application. One of usual process is with ranking process on the first step, soon rearrange being a summary. The result got from the process could not said as a good summary because it can be a redundancy or duplicats on the summary. Furthermore, that needs a handle to reduce redundancy on the summary's documents. The process is reranking.

On this final assessment, the *Automatic Text summarization* technique with *Maximal Marginal Relevance* method for multi-document of news is applied. As the input for this application are Indonesia news documents which have same topic. This method is query-based with the calculation of sentence score is based on similarity sentences with query to yield the score of every sentence to get sequence ranking of all sentence. Some sentences which have highest ranking will be extracted to be a summary as according to parameter of compression rate from user. Similarity method that is used is *cosine-based similarity*. Ordering process are applied to produce a summary which has chronological in meaning yet and there are no redundancy data or repeated information. Also implemented the *Maximal Marginal Relevance modification* with adding the number of penalty on the calculation.

Evaluation of the summaries uses ROUGE evaluation toolkit comparing the result of *Maximal Marginal Relevance* and *Maximal Marginal Relevance modification*. Result of examination indicate that both of these method application in this final assessment have owned the good enough accuration (produce summary with minimum redundancy).

Key Words : automatic text summarization, *Maximal Marginal Relevance* and modification, *user query*, *cosine-based similarity*, *ordering*, *evaluation*.