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.

On this final assessment the *Automatic Text summarization* technique based on Graph approach which is *Timestamped Graph Model* for multi-document of news is applied. As the input for this application are Indonesia and English news documents which have same topic. This method applies the concept of *Topic-Sensitive Pagerank* 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. The calculation of sentence score is based on similarity sentences with query and *Timestamped Graph* which is directed graph builded step by step with its node as sentence and its edge as similarity between sentences. Similarity method that is used is *cosine-based similarity*. Ordering and reranking process are apllied to produce a summary which has chronological in meaning yet and there are no redundancy data or repeated information

Evaluation of the summaries uses ROUGE evaluation toolkit comparing the result from another summarizer, MEAD. Result of examination indicate that the method of *Timestamped Graph Model* application in this final assessment have owned the good enough accuration.

Kata kunci: automatic text summarization, *Timestamped Graph Model*, *topic-senstive PageRank, cosine-based similarity, ordering, reranking.*