A Combination Method for Improving Text Summarization

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Abstract

As the volume of online and electronic information increasingly has grown, quickly and accurately access to these important resources is a big challenge. Text analytics can help by transposing words and sentences in unstructured data into high-quality information. Text summarization is one of the applications of text mining, has been of interest to researchers. In addition to text summarization, using optimization algorithms can be influenced results. In this paper, has been presented a hybrid approach for English multi-document summarization. As name suggest, a text summarization system produces summary of original documents. Combination of text mining and optimization algorithms is main ways this research, to improve results and reduce redundancy in summary sentences and simultaneously summary sentences have the most relevant. Similarity measures are cosine and overlap. Using multi-objective particle swarm optimization algorithm improved results. The experimental results of the method on two data sets DUC2005 and DUC2007 show improvements in the three assessment criteria associated. Result of summarization about 3 percent in ROUGE-1, in ROUGE-2 at 2 percent and the benchmark ROUGE-SU for approximately 1.5% compared with the previous methods
improves.

References


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Pattern Recognition

Keywords

Text Mining, Multi-Document Summarization, Multi-objective Particle Swarm Optimization