

Text summarization using graph theory and machine translation techniques

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ABSTRACT

Text summarization is condensing the input text into a shorter one by preserving its main information content and overall concept. By increasing public access to web information, information retrieval techniques have found high importance and it is also very difficult for human beings to summarize manually large documents. So automatic text summarization is one of the most attractive issues in natural language processing and has fundamental role in concept understanding time reduction. Text summarization methods can be classified into extractive and abstractive summarization. An extractive summarization method consists of selecting important sentences and paragraph from the original document and merging them into shorter form and abstractive summarization method attempts to develop an understanding of the main concept of the original text and re-telling it in less words and sentences. An important problem in extractive summary is output sentence ordering. Recent research works on extractive-summary generation employ sequence ordering in original document, but few works indicate how to select and reorder remaining and relevant sentence in output document. It is clear that by deleting some unimportant sentences, the sentence ordering is disrupted. In this paper we address a novel automatic summarization method to combine graph theory and machine translation algorithms in order to sentences alignment in summary text.

Keywords: text summarization, graph theory, machine translation, extractive summarization