Chapter 1
A Survey on Text-Based Topic Summarization Techniques

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ABSTRACT

The text summing method is obsolete due to recent advances in news articles, official documents, textual interpretation in scientific studies, manual text extraction, and many archives. Dealing with large amounts of text data requires the deployment of effective solutions. It is also impossible to capture text material due to high cost and labor. As a result, the academic community is increasingly interested in developing new ways to capture text automatically. Researchers have been working to improve the process of creating summaries since the invention of text summaries with the aim of creating machine summary matches with man-made summaries. Meaningful sentences are selected from the input document and added to the summaries using the hybrid technique. As a result, researchers are increasingly focusing on concise summaries to provide more coherent and relevant summaries. They use an artificial text summary to gather knowledge and information about recent research. A complete overview of abstraction methods is provided by a recent text summary created over the past decade.

INTRODUCTION

Network resources on the internet (for example, sites, consumer ratings, news, writing, social network platforms, and so on) are vast textual data sources. Furthermore, there is a prosperity of textual information in the many files of news stories, books, authorized papers, medicinal papers, scientific reports, and other textual content. The volume of word material on the Internet and other archives expands at an exponential rate every day. As a consequence, customers waste a ration of time attempting to get the evidence they require. They didn't unfluctuating read and realize all of the textual content in the search results. Numerous parts of the writings produced are redundant or uninteresting. As a result, text resources must be condensed and compressed more frequently. Summarizing by hand is a time-consuming and labor-intensive process. Manual summarizing such a massive amount of textual material is incredibly challenging for humans (Vilca & Cabezudo, 2017). TTS is the most essential solution to this problem. The purpose of a TTS arrangement is to harvest a synthesis that condenses the most important thoughts first from the main raw material together into a short amount of room while avoiding repetition (Moratanch & Chitrakala, 2017). Users can easily grasp the essential ideas with TTS systems without having to read the entire file (Nazari & Mahdavi, 2019).

Consumers will profit from the automatically created digests because it will accept their time and attempt. "A successful summary distills the most relevant information from multiple sources (or streams) to offer an abbreviated copy of the old albums for a specified user(s) and task(s)," (Maybury, 1995) defined an autonomous synopsis. A summary is a text created by one or more readers that conveys the essential meaning of the source concisely and understandably. It is now upwards of 50% of the original text(s), and it is typically much less "according to number (Radev et al., 2002). It can be used with speech, multimodal papers, hypertext, and other types of content." Only the most important information will be included in the produced synopsis, which should be smaller than the input text (Gambhir & Gupta, 2017).

TTS systems are divided into two types: solitary-document and multiple-document summing systems. The prior constructs the synopsis beginning the textual content, whereas the latter constructs it from a collection of documents. TTS systems are created using exploration and production, abstractions, or hybrid text summarising approaches. The extractive approach develops the summary by selecting the most fundamental sentences from the core raw material. The summarization method turns the input text into such an attempt to bridge the gap before providing a summary based on words and phrases that are different from the previous text phrases. A hybrid technique is created by combining the abstractive summarising processes. As shown in Figure 1, the following procedures make up the overall framework of a TTS system. (Gupta & Lehal, 2010) provides sorting data of the actual letter using

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