Chapter 6
Sentiment Analysis and Summarization of Facebook Posts on News Media

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ABSTRACT

Social media has become part of daily life in the modern world. News media companies (NMC) use social network sites including Facebook pages to let net users keep updated. Public expression is important to NMC for making valuable journals, but it is not cost-effective to collect millions of feedback by human effort, which can instead be automated by sentiment analysis. This chapter presents a mobile application called Facemarize that summarizes the contents of news media Facebook pages using sentiment analysis. The sentiment of user comments can be quickly analyzed and summarized with emotion detection. The sentiment analysis achieves an accuracy of over 80%. In a survey with 30 participants including journalists, journalism students, and journalism graduates, the application gets at least 4.9 marks (in a 7-point Likert scale) on the usefulness, ease of use, ease of learning, and satisfaction with a mean reliability score of 3.9 (out of 5), showing the effectiveness of the application.

1. INTRODUCTION

Social media life with mobile apps has belonged to most humans these days. Social media such as Facebook and Twitter facilitates people to get connected because of their popularity (Zúñiga et al., 2012). In April 2021, Facebook was ranked as the most popular social network site (SNS) worldwide (Statista, 2021). Facebook page (or simply page) is universally applied by many different types of organizations with their special purposes. Under the trend of page, every company branches a team to concentrate on maintaining pages for spreading its journals to and interacting with the public.

SNS has a pro-social effect that helps people get news and encourages individuals' social capital and improves their civic engagement and political participation (Zúñiga et al., 2012). News media companies (NMC) report their journals to the public through periodical publication and broadcasting. Meanwhile, NMC has applied page as a platform to reach their audience and make them connected. NMC shares posts with the abstract of their journals or discussion topics of social issues on their pages. It helps their followers to keep in touch with news, and brings opportunities for them to give opinions, express feelings, and start discussions. It is beneficial to reflect the views from different issues since both NMC and the public can listen to the voices from the public. Public expression also leads NMC to continue to make valuable journals. Pages may help to keep news values and then benefit NMC, the public, and the societies.

The NMC can listen to the voices of their page followers efficiently so that they have ideas on how they should report while keeping news values. News should be accurate and objective, and also be concise, clear, and balanced (Wahl-Jorgensen & Hanitzsch, 2009). With the help of summarized contents, NMC has their directions to report transferable journals for their audience.

Their followers' horizons can be broadened to see what social issues happen and different aspects in their communities exist. It encourages them to be humbler and more responsible for their societies. It is attractive for the public to care about issues from their neighborhood to the world. They will be more confident to share their thoughts, try to understand others, and think more for justice, without following the trend blindly or being selfish. Different classes of people and government officials are counted as individuals of the public. SNS use for news encourages individuals' willingness to join and participate in civic and political activities (Zúñiga et al., 2012).

The convenience of the Internet encourages people to express themselves. However, NMC or the public can't listen to too many voices and think objectively within a limited time. It is cost-ineffective to be performed humanly. There are many pages analytic tools that are useful for NMC pages to realize their followers. Even though, none of them is beneficial for keeping news values because they are mainly

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