Chapter 19
CommuniMents:
A Framework for Detecting Community Based Sentiments for Events

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ABSTRACT

Social media has revolutionized human communication and styles of interaction. Due to its effectiveness and ease, people have started using it increasingly to share and exchange information, carry out discussions on various events, and express their opinions. Various communities may have diverse sentiments about events and it is an interesting research problem to understand the sentiments of a particular community for a specific event. In this article, the authors propose a framework CommuniMents which enables us to identify the members of a community and measure the sentiments of the community for a particular event. CommuniMents uses automated snowball sampling to identify the members of a community, then fetches their published contents (specifically tweets), pre-processes the contents and measures the sentiments of the community. The authors perform qualitative and quantitative evaluation for a variety of real world events to validate the effectiveness of the proposed framework.

INTRODUCTION

Social media applications provide easy and effective ways for communication, sharing of opinions and exchange of information. These applications enable people to communicate with a large and diverse set of people for different purposes. For example, people may communicate and share their problems directly with their representatives in government and parliament. They may also give their opinion and show their sentiments on social problems, events, political movements, and government policies. Active participation of a large number of users results in abundance of information, and most of this information is unstructured and unmanageable. The huge amount of information in social media leads to the problem of "Social media information overload" (Bright et al., 2015). Social media information overload and the diversity of information create difficulties and challenges in information processing, presentation and analysis (Batrinca and Treleaven, 2015, Schuller et al., 2015).

In social media, the information which is created, shared and exchanged has importance for the public, news agencies, governments, oppositions and political parties because this information contains public opinion and sentiments. News agencies these days often select the subject of talk shows and the trends of news as per opinion and sentiments of public in social media. The government may also be able to benefit from the social media while making policies and taking decisions about the country and the general public, as users on social media discuss and express their opinions about the government policies, decisions and its governance with their friends, colleagues, and community. Through the effective monitoring and analysis of social media posts, government may make their policies and take decisions in a more informed way (WeGov, 2016).

Nowadays many communities, e.g. lawyers, politicians, journalists, doctors, and researchers are aware about the importance of social media and they use social media services to express their opinions on various issues in their daily lives (Manaman et al., 2016). Among these communities, the journalist community actively participates in discussions on social media like twitter, and expresses its opinions about the events occurring in the surroundings. Journalists and media also have an influential role on government policies and they affect the mindset of the public, which also effects the election results (Takahashi et al., 2015, Bekafigo and McBride, 2013). Journalists are using social media services increasingly (Zubiaga et al., 2013) to gather the news about the major events.

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