Chapter 25

Gauging Opinions About the Citizenship Amendment Act and NRC: A Twitter Analysis Approach

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ABSTRACT

Today, the advent of social media has provided a platform for expressing opinions regarding legislation and public schemes. One such burning legislation introduced in India is the Citizenship Amendment Act (CAA) and its impact on the National Citizenship Register (NRC) and, subsequently, on the National Population Register (NPR). This study examines and determines the opinions expressed on social media regarding the act through a Twitter analysis approach that extracts nearly 18,000 tweets during 10 days of introducing the scheme. The analysis revealed that the opinion was neutral but tended to a more negative reaction. Consequently, recommendations on improving public perception about the scheme by suitable for interpreting the Act to the public are provided in the paper.

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INTRODUCTION

Social media has emerged as a significant force to reckon with due to the vast and rapid advances in information technology (Charalabidis & Loukis, 2012; Rana et al., 2017). This force has motivated and prompted people to express their opinions on various topics, products, and services. Of the various social

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media platforms today, Twitter has emerged to be a widely used social media micro-blogging platform (Terpstra et al., 2012; Gautam & Yadav, 2014; Arun, Srinagesh & Ramesh, 2017; Suganthi & Geetha, 2017; Iftikhar & Khan,2020) for expressing opinions on various issues now also including political schemes and legislations. Contemporary issues and political debates are found to stir from Twitter's opinions, making it an interesting source with scope for mining and analyzing social media data.

One such burning issue for contemplation is the introduction of the Citizenship Amendment Act(CAA) (Poddar,2018; ET Online,2019; Nath,2019; Chandrachud,2020), which assures granting Indian citizenship to the Hindus and other religious communities like the Sikhs, Buddhists, Jains, Parsis and Christian religious immigrants in India from the three countries namely Pakistan, Afghanistan, and Bangladesh. However, this Act excludes the Muslims from a grant of citizenship, and this drew flak from the Islamic minorities, political parties, and students for granting citizenship based on religious discrimination.

While existing studies (Arun, Srinagesh & Ramesh, 2017; Joseph *et al.*,2017) perform sentiment analysis, the sentiment's variation over a while needs to be examined. This would enable in understanding the varying opinions and the triggering incidents which chronologically alter the opinions. This would enable more informed and dynamic decision-making and governance. Further, by understanding the varying opinions, strategies can be formulated to appease society's concerned and distressed sections. Further, there is a need to examine the overall nation-wide opinion and the state-wise and region-wise impact of a governance scheme to handle the situation better. This would help to formulate strategies at a more granular level by understanding the pain points of the people affected by Act region-wise. This would enable the amendment of the Act to include specific provisions and exceptions, thus favoring the innocent people.

The paper thus presents a dynamic nation-wide and state-wise sentiment distribution and emotion analysis model. The Twitter Application Programming Interface (API) was used for tweet extraction based on keywords related to CAA, NRC, and NPR and for further analysis due to its amenability to textual mining and sentiment analysis (Fang & Zhang, 2015; Panigrahi & Srivastava, 2018; Naiknaware et al.,2019). Thus, the divergent opinions on this topic were proposed to be gauged in the paper through the Twitter platform to identify the loopholes and provide customized recommendations on how the Act can be reframed and conveyed with a more amicable tone to improve public perceptions.

The rest of the paper is thus structured as follows.

A brief literature survey of existing studies in opinion analysis is presented, followed by the data sources and methodology adopted to extract tweets, social media analysis of word frequency, topic, and sentiment mining. The results and discussion section is presented. The implications of the results at both theoretical and practical levels are discussed, and the paper is concluded, providing scope for future research. The references are stated.

LITERATURE REVIEW

The studies conducted in the domain of social media opinion mining are depicted in Table 1.

Figure 1 illustrates the limitations of the existing studies.

Firstly, the existing studies using Twitter are not robust and do not adopt state-of-the-art methodologies on large datasets for validation. A typical state-of-the-art methodology is expected to capture the sentiment at a particular instance of time and analyze the distribution variation over time. While existing studies capture the sentiment during a particular period, the time series analysis of Twitter sentiments

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