Chapter 10
Affective Polarization in the U.S.
Multi-Emotional Charge Analyzed Through Affective Computing

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ABSTRACT

Affective polarization is a phenomenon that has invaded the political arena empowered by social networks. In this chapter, the authors analyze the Capitol riot posts on Twitter. To achieve this, the authors use affective computing introducing the multi-emotional charge combined with statistical analysis based on the t-student test and Welch's t-test. The research questions guiding this study are: How do social media platforms' messages impact on inciting? Do social media platforms' messages with negative emotional charge affect legitimizing of the Capitol protest? Findings identify the significant influence of Donald Trump on Twitter during the Capitol riot. Moreover, data analysis identifies positive and negative emotions towards Donald Trump as well as similarities in the showed emotions of Trump and the audience.

INTRODUCTION

The takeover of the Capitol in January 2021 by supporters of Donald Trump is an unprecedented event that is attributed to the communication by social media platforms - especially Parler - that organized the far-right groups: QAnon, Patriots, ProudBoys, and many others around the disturbances and the inva-

sion of the iconic facilities of American democracy (Prabhu et al., 2021). However, this event is one of many generated in social media, showing polarization and ideological discrepancies. These phenomena sometimes get out of control, inciting the public to carry out real mobilizations or opposing actions between groups to legitimize their ideologies (Munn, 2021).

In this regard, some leaders and groups have generated virtual political and ideological movements, which exacerbate emotions and increase society's polarization, from political campaigns to vaccination measures for the pandemic caused by COVID-19 (Kerr et al., 2021). All this polarization, boosted by social media, has generated a large amount of data that can be analyzed algorithmically, with the support of artificial intelligence techniques. Particularly, in the academic field, the exploitation and understanding of data generated in social media have mostly focused on unimodal sentiment analysis, based on polarity measurement only (Keikhosrokiani & Asl, 2022; Hand & Ching, 2020; Terán & Mancera, 2019). Nevertheless, there is the possibility to perform multimodal sentiment analysis based on different emotional scales, not only on polarity (Poria et al., 2017; Valle-Cruz et al., 2021, 2022), which can be helpful in areas such as marketing, business, and the public sector.

Studies in the political arena have focused on polarity analysis. However, a multi-emotional analysis could provide a richer explanatory quality of the social media audience's emotions, thoughts, and sentiments (López-Chau et al., 2020, 2021). Social media platforms such as Facebook and Twitter have been used to communicate with citizens and the government since their emergence. Social Media platform advantages are synchronous, immediate, low-cost, but above all, viral communication allows for almost instantaneous dissemination of bi-directional government information. This is a double-edged sword for governments; on the one hand, they need to receive feedback from citizens to encourage cooperation and participation. On the other hand, it has exposed governmental errors, bad practices, uncomfortable data, and exposed acts of corruption that were previously hidden.

This governmental communication through social media platforms has changed the way citizens relate to politics. In its beginnings, we saw it when the German pirate party tried to influence the elections (Jungherr et al., 2012). Later, the Arab Spring took off through Facebook and other social media platforms (Arafa & Armstrong, 2016; Passini, 2012). Other cases followed, such as #OccupyWallStreet (Tan et al., 2013) and #Yosoy132 (Treré, 2015), and the gender revolution with #BlackLivesMatter (Ince et al., 2017) and others. More recently, Hong Kong independence fighters and the umbrella revolution (Shen et al., 2020) have used social media, instant messaging, and even gaming applications such as Pokemon Go to organize and communicate their protest worldwide (Vincent, 2019) expressing emotions in a virtual world.

The importance of the study of emotions plays a relevant role in decision-making and a better understanding of social phenomena, as well as political events. Some AI techniques (e.g. convolutional neural, networks and natural language processing) can help advance in this direction (Criado et al., 2021; Valle-Cruz, Criado, et al., 2020). AI techniques have developed different kinds of machines capable of recognizing, expressing, modeling, communicating, and responding to emotional information: this area of knowledge is called "affective computing" (Picard, 2003; Turing, 1950).

The Capitol riot can be analyzed with the Preparatory Media Model, developed by Munn (2021), in three phases: mobilization, incitement, and legitimization:

"Mobilizing occurs through digitally native mechanisms, the same features we use to communicate, to share with others, and to stay informed of events. Digital affordances allow these calls to circulate widely, winning adherents and building inertia. Participants no longer need to commit to being a card-carrying member of a far-right organization but can instead be drawn into a tighter affiliation with radical right

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