Tweet for Democracy: Examining the Monitorial Citizen

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Abstract

In the 2012 US presidential election, there was concern about voter turnout. Since Obama for America's use of social media during 2008 Presidential elections, there has been growing speculation of social media becoming a medium for re-engaging citizens in politics. Hence, social media's role in political engagement and the nature of political engagement were examined via three analyses of Twitter data (i.e. network posting frequency, sentiment analysis, and social network analysis) and one survey study. The results showed that Twitter's impact on political engagement is simply about spreading awareness — it still depends on whether open-minded, and politically and civically interested users see the politically relevant tweets.

1   Introduction

During the Presidential Elections of 2012, even though overall voter turnout decreased, the voter turnout of United States youth and minorities remaining historically high (Morris, 2012). According to Pew Research Center's *Demographics of Social Media Users*, social media usage is associated with higher levels of youth and minority participation. A greater percentage of social media users are young adults between the ages of 18-29; a greater percentage of African Americans and Hispanics are more likely to use social media than Whites; and a greater percentage of African Americans are more likely to use Twitter (Duggan and Brenner, 2013; Smith and Brenner, 2012). Our studies focused on the concept of the monitorial citizen as a more accurate representation of the nature of voters in the Presidential Election of 2012. Monitorial citizens are citizens who participate in politics when they feel that something requires attention or may become threatening (Zaller, 2003, p.118). Therefore, the historically high voter turnout of United States youth and minorities may reflect the perception of a need to address political issues important to these groups or perception of a threat in the past election (Morris, 2012). The concept of monitorial citizens may explain the contradiction between the presence of "slacktivists," those who are passively engaged online via social media, and those who effectively use social media in their political engagement (Klafka, 2010 in Breuer and Farooq, 2012, p.4). We propose that during politically significant times (e.g., elections) social media would reflect and facilitate the arousal of monitorial citizens through activity frequency, sentiment, network characteristics, and offline political engagement.

2   Method

Twitter was used due to its popularity as a social media medium, the presence of hashtags that are used to organize conversations, and its use alongside political events (e.g. communication of opinions during Presidential Debates via #debates, political fact checkers such as @poltifact and @factcheckdotorg) [Casserly, 2012; Memmot, 2012]. The dataset used was purchased from GNip, a social media data provider. The data was filtered to only provide Twitter communications (tweets) during the week before the Presidential Elections 2012 (October 31, 2012 to November 5, 2012), in the English language, from users located in United States, and containing the following hashtags to ascertain the relevance of the tweet to the Presidential Election of 2012: #Election2012, #Obama, #Romney. Gephi was used to conduct the network analysis and calculate social network metrics: the Connected Components calculation identified unique Twitter communities within the large dataset, the Average Path Length calculation was used to determine the extent to which users tend to be connected with each other, the Average Degree calculation determined the number of interactions between users, the Eigenvector Centrality calculation determined whether users tended to interact with popular users, and the Average Clustering Coefficient calculation determined whether users preferred to interact with specific users.

3   Results

3.1   Study 1

We examined the frequency of tweets posted daily leading up to the election to determine whether Twitter users perceived a sense of urgency and hence posted more. We found that Twitter activity steadily increased from October 31st to November 4th. Furthermore, Twitter activity almost doubled from November 4th to November 5th, the day before the election. We compared the tweet frequency of the swing states to the tweet frequency of the United States overall. We found that Twitter users located in the eight battleground states (out of the fifty states) generated 28% of the overall tweets, a significantly large proportion of Twitter communications (CNN Wire, 2012). Our findings support the association of greater posting frequency with greater political participation because the battleground states (i.e., Colorado, Florida, Iowa, New Hampshire, Nevada, Ohio, Virginia, and Wisconsin) had some of the highest voter turnouts (CNN Wire, 2012). Study limitations included the limited analysis time frame.
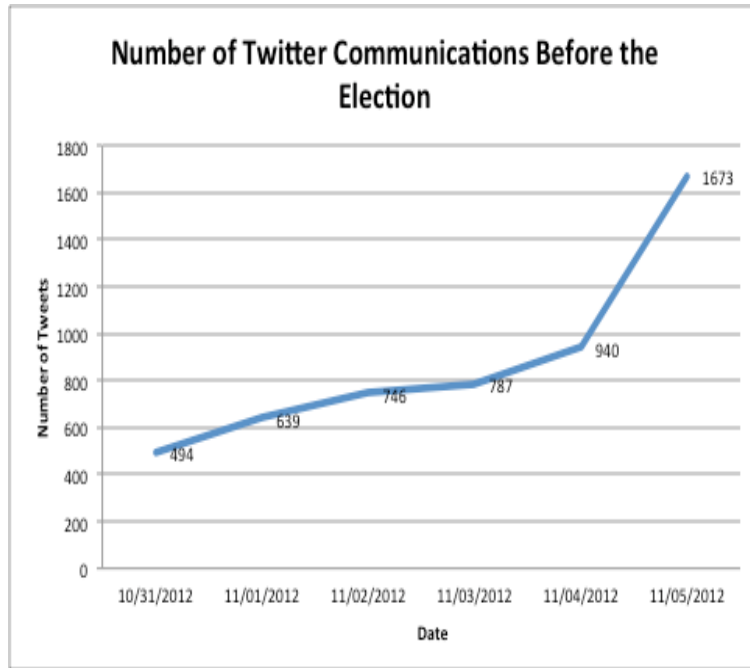
Figure 1: The number of Twitter communications that took place six days prior to the 2012 presidential election.
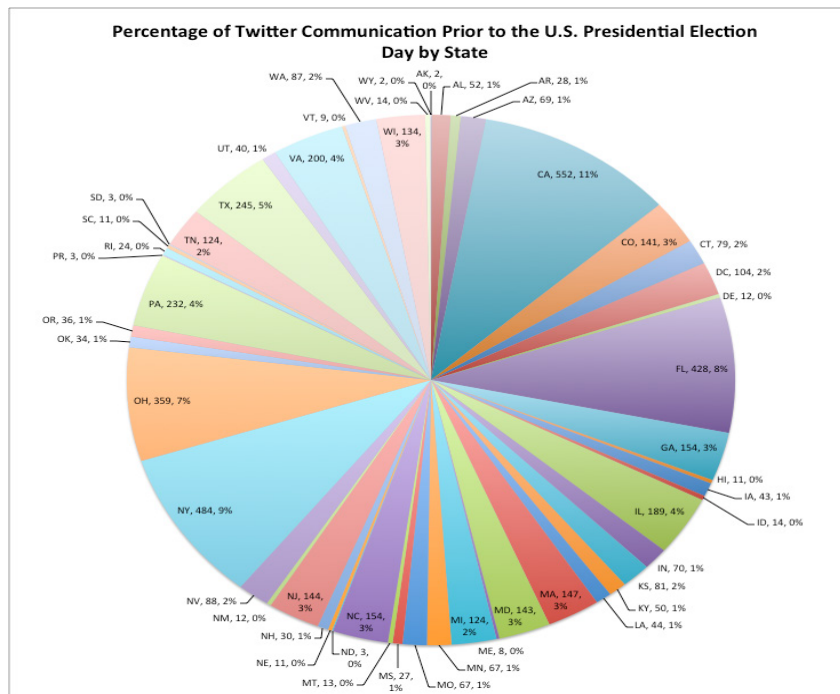

Figure 2: The percentage of Twitter communication six days prior to the 2012 presidential election by state.

3.2   Study 2

In the field of social media and politics, there has not been a study that applies sentiment analysis to the study of political engagement. (e.g. Gayo-Avello, 2012, Choy et al., 2011). We examined the relationship of tweet sentiment expressed on Twitter and political engagement. Three types of sentiment were used in this

study through the usage of Affective Norms for English Words (ANEW) list: urgency (arousal), efficacy (dominance), and valence [Bradley and Lang, 1999]. Vis-à-vis the concept of the monitorial citizen, it was expected that tweets in the swing states would contain a greater urgency sentiment. From analyzing the standardized residuals of the sentiment found among all of the voting states, there were no patterns of statistically significant instances of any of the categories of urgency, valence, and efficacy, which occurred in the battleground states. However, many of the solid states (e.g. New York, California, Texas, Alabama, Louisiana), which also had some of the lowest voter turnout, lacked significant sentiment (CNN Wire, 2012; 2012 Election Maps, 2012). Study limitations included the accuracy of the sentiment rating (e.g. literal scoring may not detect sarcasm in tweets) and the limited time frame examined.
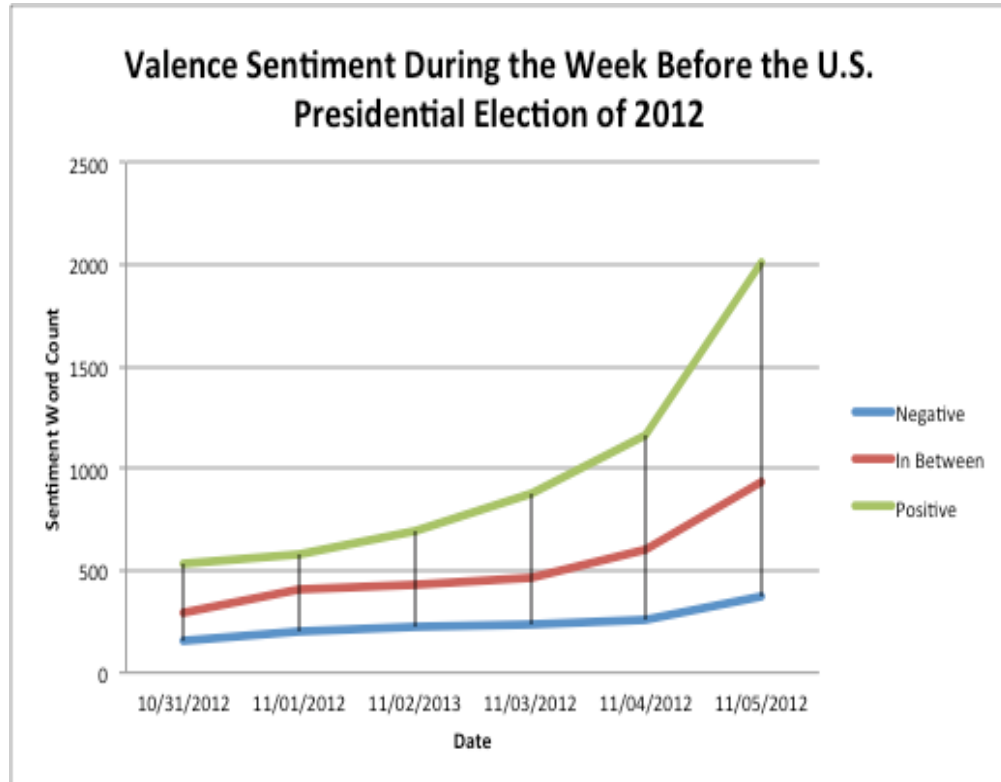

Figure 3: The Valence Sentiment six days prior to the 2012 presidential election in the U.S.
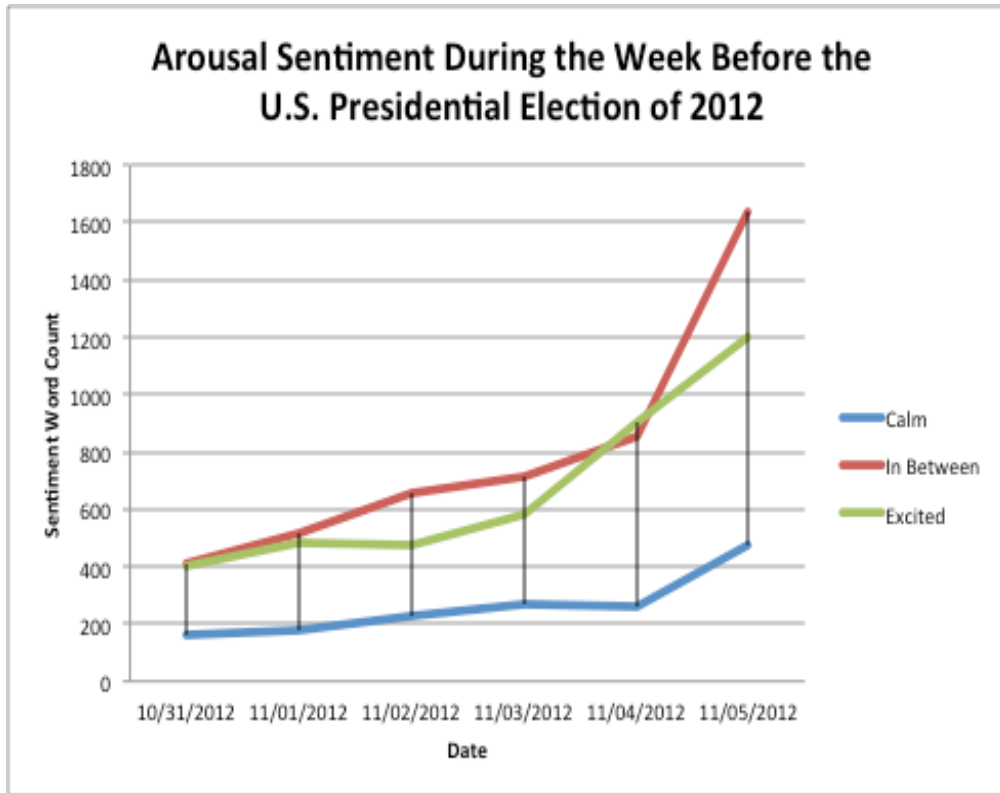
Figure 4: The Arousal Sentiment six days prior to the 2012 presidential election in the U.S.
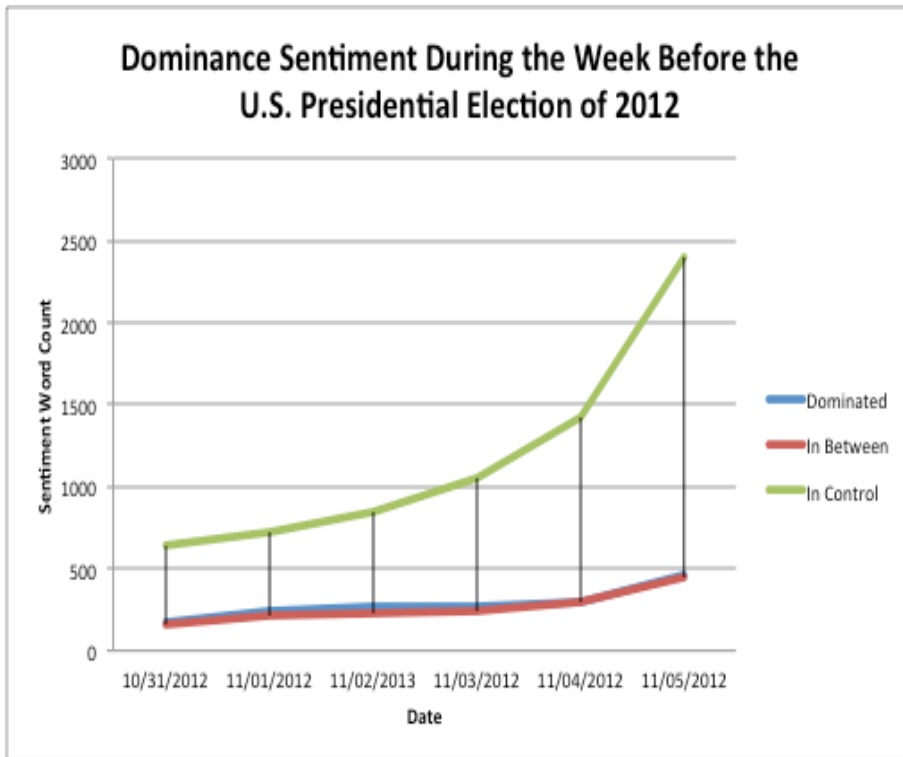
Figure 5: The Dominance Sentiment six days prior to the 2012 presidential election in the U.S.

3.3   Study 3

A macro-level analysis involving Twitter users and their connections to other Twitter users was conducted via Gephi, a social network visualizer, to examine the presence of social capital in Twitter. In Twitter, connections within the network can occur via retweets of a user's post, a user mention in a post, and a direct reply to a user. However, social network metrics indicated the lack of a strongly connected network. For instance, the average degree, which indicates the number of users other users were connected to, was 0.207. Thus, on average, users interact (replied to, retweeted, or mentioned) with less than one user. Limitations included were the limited analysis time frame and lack of geographical tweet data to examine political engagement across states.

3.4   Study 4

We assessed political engagement and Twitter usage among college student populations from students of California, New Mexico, Pennsylvania, New York, and Alabama. With permission, we adapted Vitak and colleague's (2011) survey on Facebook use and political engagement for this study. Of the 89 survey respondents, 39 respondents were Twitter users. Only Twitter users were assessed. Pearson's product-moment correlation tests were performed to test for significant correlations between voting in 2012 and the 74 questions asked of the respondents. Self –reported voting behavior was significantly correlated with the following: an interest in politics ($r = 0.424$, $p = 0.007$). Disagreement with the statements "I can learn a lot from people with backgrounds and experiences that are different from mine" ($r = -0.279$, $p = 0.085$) and "I think it is important to get involved in improving my community ($r = -0.346$, $p = 0.03$) showed significant negative correlations with voting. Results indicated that interest, open-mindedness, and a belief in civil participation encouraged political engagement. No significant associations between Twitter use and offline political engagement were found. Study limitations include the low response rate and the survey's restriction to the college student population.

4   Conclusion

Twitter's impact on political engagement may depend on how often the tweets are generated and whether the tweets are be seen by open-minded, and politically and civically-interested users. Hence, the relationship between greater use of social media and greater political engagement may be that greater social media use allows the dissemination of information to people, who may be interested or alarmed by the information. Since the voter turnout of United States youth and minorities has remained historically high, it is possible that despite a lack of an expected connected social network and offline political engagement--which involves more time to cultivate-- social media reflects and rouses a short term fervor that often engages the monitorial citizen. Future work should examine the following aspects of activities across all major social media platforms during politically significant times: types of user-generated content (e.g. comments, web links, RTs), the demographics of social media users (e.g. location, ethnicity, age), sentiment in user-generated content, and social network characteristics of interactions. A more comprehensive view of social media's role in political engagement can be gleaned from such studies. Altogether such studies can reveal crucial patterns that lead to the clearer understanding of social media's role in political engagement.

5   References

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