University of Groningen

I Click, Therefore I am

Esteve Del Valle, Marc; Wanless-Berk, Alicia; Gruzd, Anatoliy ; Mai, Philip

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2018

[Link to publication in University of Groningen/UMCG research database](#)

CHAPTER 8

I CLICK, THEREFORE I AM: PREDICTING CLICKTIVIST-LIKE ACTIONS ON CANDIDATES' FACEBOOK POSTS DURING THE 2016 US PRIMARY ELECTION

Marc Esteve Del Valle, Alicia Wanless-Berk, Anatoliy Gruzd and Philip Mai

ABSTRACT

Facebook "likes" are often used as a proxy of users' attention and an affirmation of what is posted on Facebook (Gerodimos & Justinussen, 2015). To determine what factors predict "likes," the authors analyzed Facebook posts made by the campaigns of Hillary Clinton, Bernie Sanders, and Donald Trump, the top three candidates from the 2016 US primary election. Several possible factors were considered, such as the types of posts, the use of pronouns and emotions, the inclusion of slogans and hashtags, references made to opponents, as well as candidate's mentions on national television. The results of an ordinary least-squared regression analysis showed that the use of highly charged (positive or negative) emotions and personalized posts (first-person singular pronouns) increased "likes" across all three candidates' Facebook pages, whereas visual posts (posts containing either videos or photos) and the use of past tenses were liked more often by Hillary Clinton and Bernie Sanders' followers than by Trump's followers. Television mentions boosted likes on Clinton

and Sanders' posts but had a negative effect on Trump's. The study contributes to the growing literature on digitally networked participation (Theocharis, 2015) and supports the emerging notion of the new "hybrid media" system (Chadwick, 2013) for political communication. The study also raises questions as to the relevance of platforms such as Facebook to deliberative democratic processes since Facebook users are not necessarily engaging with the content in an organic way, but instead might be guided to specific content by the Facebook timeline algorithm and targeted ads.

INTRODUCTION

Social media's short existence has been marked by a turbulent reputation in politics. From the outset social media was viewed as a possible channel for engaging people in politics (Utz, 2009). Social media was quickly adopted by civil society activists to organize and coordinate protests, positioning it as a possible tool for democratization (Abul-Fottouh, 2018; Eltantawy & Wiest, 2011; Gruzd & O'Bright, 2017; Gruzd & Tsyganova, 2015; White et al., 2015). The potential did not escape the notice of politicians and their supporters, who adopted social media to engage voters during elections (Esteve Del Valle, 2015a ; Gruzd & Roy, 2014; Pilkington & Michel, 2012). The 2016 US presidential election might well be viewed as a turning point for the role of social media in elections, given the revelations around the use of Facebook by strategic communication firms like Cambridge Analytica (Osborne & Parkinson, 2018). For politicians, social media is another channel to reach and sway the voting masses, increasingly using communication strategies that blur the line between persuasion and manipulation (Wanless & Berk, 2017). For the electorate, engaging with politicians via social media presents a form of online political participation (Ceron & Curini, 2018; Esteve Del Valle & Borge Bravo, 2017; Halupka, 2014; Lilleker et al., 2017). Public participation, in the form of deliberation free from coercion (Dryzek, 2000) remains a strong component of functioning democracies (Zuñiga et al., 2012). Understanding how voters are engaging online with political messaging, and which social media platforms are enabling possible manipulation of popular opinion are particularly important in the lead-up to an election.

One of the most basic forms of voter online engagement is a phenomenon coined as "clicktivism," which refers to the online action that one can perform to express their support toward a cause or a candidate by clicking a "like" button or retransmitting a message. Although it is still widely debated whether "clicktivism" is a legitimate form of political engagement (Halupka, 2014, 2018), knowing what the masses liked or shared online creates an opportunity for social media researchers, pollsters, political strategists, and mainstream media to learn what

issues resonate with the public (Rossini et al., 2017) and what are the most effective ways to engage one's supporters. The tracking of what people do online is providing a wealth of data that can then be used to target audiences with highly personalized messaging.

Broadly speaking, online behavioral advertising tracks user activity across the Internet to build individual profiles for the purpose of marketing (Boerman, Kruikemeier, & Zuiderveen Borgesius, 2017). Facebook has proven to be particularly useful in computationally modelling user profiles, with one algorithm being able to understand a person better than one's own family after analyzing just 150 likes made by that user on the social networking platform (Youyou, Kosinski, & Stillwell, 2015). Such data can be combined with techniques in another field, behavioral economics, that aims to understand the emotional, cognitive, and psychological factors underlying human decision making (Thaler, 2016). Political candidates and their communication staff can also use such information and techniques to refine their social media strategies in highly targeted and persuasive ways (Kreiss & McGregor, 2018).

Indeed, in support of their bids for the US presidency, candidates Trump, Cruz, and Carson all engaged Cambridge Analytica (Vazquez & Murphy, 2018), a firm purporting to offer services such as behavioral advertising by applying behavioral economics to political messaging (Nix, 2016). Although data analytics were also widely used during the 2012 presidential elections (Bimber, 2014), Cambridge Analytica reportedly took tactics to the next level by employing these techniques to refine their social media strategies and psychologically target the electorate (Grassegger & Krogerus, 2018). At the time of writing this chapter, details continue to emerge on how Cambridge Analytica acquired and used Facebook data on 50 million user profiles to influence voters during the 2016 US presidential election (Cadwalladr & Graham-Harrison, 2018). The effectiveness of such an approach is still being questioned (Allen & Abbruzzese, 2018), which makes deepening our understandings of voter engagement online so imperative.

We use the 2016 US primary election as a case to investigate the continuously evolving form of networked political participation (Theocharis, 2015) empirically. Primaries are distinct from general elections, since they are "intraparty, multiple and serial" elections (Kendall, 1998, p. 2). In a primary election, candidates must appeal to multiple audiences (such as party leaders, elected officials, and public supporters) simultaneously. Because of this need to satisfy multiple stakeholders with competing interests and to get an edge on the competition, primary candidates are more likely to adopt novel campaign methods, and use new, often untested, technology to reach their supporters and raise money. Historical examples of the use of Information and Communication Technologies (ICTs) in the context of American primaries can be found in Roosevelt and Taft's use of the telegraph during the 1912 primary which enabled them to track their opponents and respond to their attacks faster than ever before (Corcoran & Kendall, 1992). Similarly, Eisenhower's use of television advertisements to increase public visibility during the 1952 presidential primaries helped him increase his advantage over other candidates (Barkin, 1986).

This research analyzes a popular ICT of our time – Facebook, and specifically Facebook posts made by the US primary candidates Hillary Clinton, Bernie Sanders, and Donald Trump from February 1, 2016 to July 28, 2016. We ask what, in a "hybrid media system" (Chadwick, 2013), causes some posts made by a political campaign to gain higher rates of "likes" (a proxy for "clicktivist" engagement). To explain the variability of the number of likes in the candidates' Facebook posts, we examine a number of predictors related to the content of the posts and the hybridity of the media system in which the primary elections took place.

We specifically excluded candidates who participated in the primaries but dropped out early from the race. Only those candidates whose campaign lasted until their respective national conventions (Hillary Clinton, Bernie Sanders, and Donald Trump), that is, the natural end of the primary campaign cycle, were included. We made this decision to ensure consistency and uniformity in our data set and the subsequent analyses. This decision gave us an opportunity to explore data for a slightly longer period. It also gave us a chance to see how candidates' Facebook posting behaviors might have changed as the race tightened and how their followers interacted with the campaign's Facebook posts over the length of the primary contest.

BACKGROUND

Clicktivism and Political Participation

Political participation refers to behavior aiming to influence government action and policy making (Verba, Schlozman, & Brady, 1995). The popularity of social media has created new possibilities for political engagement. Indeed, Facebook users who posted supportive and positive messages to a political candidate's wall during the 2006 US midterm election were found to perceive themselves as friends of that politician (Sweetser & Lariscy, 2008), suggesting many users might see Facebook interactions as a form of political participation.

Facebook users can also like and share candidate posts, which may be broadly described as a "parasocial" interaction, when a social media user interacts with others online "as if they are present and engaged in a reciprocal relationship" (Labrecque, 2014, p. 135). Such light-weight interactions can be used to understand individuals' preferences toward a campaign as well as their level of engagement with campaign's posts (Larsson, 2014, 2015). The assumption is that "the number of likes implies exposure, attention, and some sort of affirmation, ratification, or endorsement of what is posted" (Gerodimos & Justinussen, 2015, p. 117).

In the context of political communication, parasocial interactions contribute to a widely debated phenomenon called "clicktivism" (Halupka, 2018; Karpf, 2010; Lim, 2013). Some scholars see clicktivism as a lazy alternative to political engagement (Mozorov, 2009). Pavia (2011) and Skoric (2012) highlight the ineffectiveness of clicktivism and draw a clear line between traditional forms of political participation and new forms of online engagement. White (2010) uses

the term to criticize what they consider an inferior form of political participation, and Lee and Hsieh's (2013) ideas of clicktivism focus on the exercise by individuals of moral justification rather than considering the action a form of political participation.

On the other hand, Halupka (2014, 2018) argues that technology is facilitating the emergence of new forms of online political participation such as clicktivist-like actions. Though these new forms of participation do not require as much effort as those of the traditional political participation, they still are political acts, and as such they should be considered a form of political participation. For example, Esteve Del Valle (2015b) and Borge and Esteve Del Valle (2017) used clicktivist-like actions as a proxy to study how political parties in Catalonia engage with their followers on Facebook.

Facebook in a Hybrid Media System

Facebook was chosen for this study as it represented the biggest proportion of Americans on a social networking site with 79% of Internet users (68% of all US adults) using Facebook in 2016 (Pew Research Center, 2016). In addition, the US presidential elections topped the list of most talked about topics on Facebook (both globally and in America) (Facebook, 2015). While social media content is not widely viewed as credible by politically interested consumers of it (Ceron, 2015; Johnson, 2014), news shared by well-known trusted opinion leaders on Facebook has been found to influence audience perceptions (Turcotte, York, Irving, Scholl, & Pingree, 2015). Likewise, political journalists have equated social media content with public opinion (Anstead, 2014).

Our analysis of Facebook will be conducted through the lens of the hybrid media analytical approach (Chadwick, 2013, p. 23). In a contemporary hybrid media system, the Internet and social media are continuously interacting with and being influenced by mass media such as television or newspapers and vice versa. In particular,

> the boundaries between older and newer media are always porous, as the disruptions caused by the emergence of newer media are gradually working their way through the institutions of the previously dominant print and broadcast media system. (Chadwick, 2013, p. 22)

Following this perspective, in addition to examining types and linguistic properties of political messages on Facebook, we will also use instances of the audiences' exposure to news about the candidates on television as a potential predictor of the clicktivist-like behavior of the candidates' Facebook followers.

The Many Ways to Analyze Political Facebook Content

There are many ways to analyze Facebook posts. This study considers several possible variables drawing from existing social media and communications research. The first focuses on the types of posts made to Facebook, which have been found to affect engagement rates. Posting videos and photos to Facebook has been found to increase engagement rates for a variety of organizations including

political parties (Borge & Esteve Del Valle, 2017) as well as academic institutions (Valerio, José Herrera-Murillo, Villanueva-Puente, Herrera-Murillo, & Rodríguez-Martínez, 2015). Given these findings, this study analyzed some of the most common Facebook post types including image, video, link, and status update.

A second stream of research has focused on the linguistics characteristics of the posts as a way to influence user response (Ahmadian, Azarshahi, & Delroy, 2017; Jordan & Pennebaker, 2017). Persuasive language has been found to influence the number of likes and comments a Facebook page received in past campaigns, such as in the 2012 US presidential election (Bronstein, 2013). A linguistic analysis of Obama's Facebook page during the 2012 campaign revealed that posts representing ethos (credibility) and pathos (emotion) enjoyed higher rates of engagement, including likes, shares, and comments, than posts without such content (Gerodimos & Justinussen, 2015).

A candidate's use of pronouns can denote the speaker's attitude, social status, gender, and intent (Wilson, 1990). The use of the first-person plural pronoun "we" has also been found to create a sense of group identity, but it also positions the speaker as part of a distinct set of people apart from that of another (Helmbrecht, 2002). The manipulation of personal pronouns is a subtler approach to persuasion, having a more subliminal effect on target audiences (Lakoff, 1992). The flexible use of pronouns enables politicians to subtly position themselves differently depending on the situation. For example, a study of State of the Union speeches by George W. Bush and Barack Obama revealed that the use of "I" positioned the speaker as an individual, "you" could be intended generically or to speak to the audience, "we" invoked collectiveness or shared responsibility, and "they" distanced the speaker from another group of people (Håkansson, 2012). Building on previous research in this area, this study considers the use of positive and negative emotions, the past and future grammatical tenses, as well as the use of personal pronouns, to determine whether any of these variables influence engagement rates.

Last, we also considered the use of campaign slogans and hashtags. In political campaigns, slogans are viewed as an important tool to help connect with an audience and frame the way a candidate is discussed (e.g., "Make America Great Again"). A slogan can "be a phrase, a short sentence, a headline, a dictum, which intentionally or unintentionally, amounts to an appeal to the person who is exposed to it to buy some article, to revive or strengthen an already well-established stereotype, to accept a new idea, or to undertake some action" (Sherif, 1937, p. 450). More than just a simple statement, slogans are the embodiment of a political platform resonating with the target audience's culture and needs (Cwalina & Falkowski, 2013). According to Sherif (1937), slogans also "imply a value judgment" (p. 450) and are used to "arouse people to high patriotic, [or] religious ardor" (p. 451), while also luring in those who do not dig too deeply into campaign platforms. Given the weight assigned to slogans in political campaigns, this study considered the role of such phrases in social media engagement, in part to ascertain if such communication techniques transcend from offline to online platforms.

Initially a user-driven convention on Twitter (Chadwick, 2010; Messina, 2007), Facebook adopted hashtagging in 2013 (Facebook, 2013). Hashtagging helps organize massive amounts of information around key topics, identified by the addition of a "hash" symbol (#) in front of a term. Increasingly, political hashtags are used to cover political events, such as #iranelection which was the top trending news event on Twitter in 2009 (Chowdhury, 2009), and more recently the use of trending hashtags by the "Remain" and "Leave" campaigns during the UK Brexit referendum (Grčar, Cherepnalkoski, Mozetič, & Novak, 2017; Khatua & Khatua, 2016). During the 2016 US primary electoral contest, political slogans were also turned into hashtags by all three candidates analyzed, thus this form of campaign messaging was also included as a variable to be examined in this study.

As shown in the next sections, the explanatory power of our regression models (adjusted *R*-squared values) is relatively low for all three candidates; however, the models show that several factors such as the use of first-person singular pronouns, emotionally charged words (either positive or negative), and television mentions are significant predictors in explaining users' clicktivism behaviour on Facebook pages of all three candidates.

DATA COLLECTION

We collected all posts made by the three candidates (Hillary Clinton, Bernie Sanders, and Donald Trump) to their respective campaign's Facebook pages between February 1, 2016 and July 28, 2016. The period was chosen as it represents the primary election campaigning period, from the Iowa caucus (February 1, 2016) to both the Republican (July 18–21, 2016) and Democratic (July 25–28, 2016) National Conventions. We chose to analyze data from these three candidates for these periods because unlike other candidates in the race, they stayed in the primary electoral contest till the very end. This longer period provided our study with additional data and helped to increase the reliability of the research. This also gave us the opportunity to study possible changes, if any, to the interactions and engagements between these candidates and their Facebook followers throughout the different stages of the primary electoral contest.

The posts were collected using Netlytic, a cloud-based platform designed for collection and analysis of publicly available social media posts (Gruzd, 2016). The data sets were collected by querying Facebook's public Application Programming Interface (API) on an hourly basis during the primary period. At the end, we collected three different data sets, one for each candidate, containing a total of 3,702 public posts. During the period of data collection, Hillary Clinton's political campaign made a total of 1,415 posts (~38%), Bernie Sanders' political campaign made 894 posts (~24%), and Donald Trump's political campaign made 1,393 posts (~37%).

To provide additional context, page level statistics were collected manually on a weekly basis from each of the three candidate's campaign Facebook pages, including rates of "People Talking About This Page," "Total Page Likes," and "New Page Likes." Facebook defines "Likes" as the number of users who liked a page, whereas "People Talking About" measures the number of users who created

a story about that page, including posting on the page wall, engaging with posts, mentioning that page, writing a recommendation, or confirming to attend an event posted by that page (Darwell, 2012).

METHODS

The three candidates' data sets containing Facebook campaign posts and corresponding follower likes were exported and analyzed using the Linguistic Inquiry and Word Count program or LIWC (Pennebaker, Boyd, Jordan, & Blackburn, 2015). For each post, LIWC measures the prevalence of various psychologically meaningful categories of words based on its empirically grounded dictionaries (Tausczik & Pennebaker, 2010). The data sets were then uploaded and processed using the Statistical Package for the Social Science (SPSS) software. Ordinary least-squared (OLS) regression analyses were employed to ascertain the factors that might help to explain post engagement (i.e., the number of likes) by each candidate's Facebook page visitors. Table 1 shows the independent variables included in the models.

As shown in Table 1, the types of post characteristics analyzed in this study can be broken into two broad groups: content-based and non-content-based. For the purposes of this study, we measured the following content-based dimensions available in LIWC: *Personalization* – measured by the frequency counts of the posts containing the first-person singular pronouns (e.g., *I, me, mine*); *Cohesiveness* – measured by the frequency counts of posts containing the first-person plural pronouns (e.g., *we*, *us*, *our*); *Temporal outlook* – measured by the frequency counts of posts containing words related to either the past (one of 341 words such as *ago*, *did*, *talked*) or future (one of 97 words such as *may*, *will*, and *soon*), both analyzed separately; *Emotional tone* – measured by the frequency counts of posts containing words expressing either positive emotions (one of 620 words such as *love*, *nice*, and *sweet*) or negative emotions (one of 744 words such as *hurt*, *ugly*, *nasty*).

Table 1. Dimensions and Independent Variables.

Dimensions	Content-Based Independent Variables	Non-Content-Based Independent Variables
Personalization	FirstPersonSingularPronouns (I, me, mine, my)	
Cohesiveness	FirstPersonPluralPronouns (We, our, us)	
Temporal outlook	Past; future	
Emotional tone	Positive; negative	
Campaign slogan hashtags	Hillarycampaignhashtag Berniecampaignhashtag Trumpcampaignhashtag	
Opponent candidate	Bernie; Hillary; Donald Trump	
Post type		Status update, link, photo, or video
Media coverage		Mentions of candidates on TV

In addition to the four linguistic dimensions available in LIWC by default, we added a custom dimension to count the frequency of posts containing campaign slogan hashtags: #ImWithher for Hillary Clinton's campaign; #FeelTheBern and #NotMeUs for Bernie Sanders' campaign; #MakeAmericaGreatAgain and #CantStumpTheTrump for Donald Trump's campaign. Although other hashtags were also used by the candidates; we only included the most popular ones based on the frequency of occurrence.

The final content-based dimension included any *mentions* of political opponents. A custom dictionary was created in LIWC to detect and count posts containing the first name mentions of Hillary, Bernie, and Donald across the candidates' posts. For the case of Donald, we decided to include both, "Donald" and "Trump" because an exploratory analysis suggested that more references to the candidate included his surname ($n = 2,658$) than his first name ($n = 2,156$).

The two *non-content-based dimensions* were *Post Type*, a nominal variable to differentiate between one of the four possible types (1 – link, 2 – status, 3 – photo, 4 – video), and *Media coverage,* a numerical variable representing the number of times each candidate was mentioned on Al Jazeera America, Bloomberg, CNBC, CNN, Comedy Central, FOX Business, FOX News, LinkTV, or MSNBC. The latter variable was created based on publicly available data provided by the GDELT Project (GDELT, 2016).

Finally, we used the total number of likes per post as our dependent variable to represent users' engagement with campaign posts. As expected, the Q–Q plots showed that for the three candidates the distribution of the variable "likes per post" was positively skewed, meaning a few posts received most of the attention (likes), which is a relatively common finding (Hogan, 2011). The Skewness (Clinton = 5.19; Sanders = 3.16; Trump = 3.74) and Kurtosis (Clinton = 41.36; Sanders = 13.55; Trump = 29.80) values corroborated the non-normal distribution of this variable. Hence, the dependent variable ("likes per post") was transformed into normal variables by performing logarithmic transformations.

RESULTS

While the adjusted *R*-squared values, representing the explanatory power of the regression models, for the three candidates were low (0.093 for Hillary Clinton; 0.129 for Bernie Sanders; and 0.029 for Donald Trump, respectively), several statistically significant predictors indicate that some factors can predict variability in post engagement as measured by the number of likes. The use of first-person singular pronouns and emotions (either positive or negative) were found to increase post likes across all three candidates' Facebook pages. Television mentions boosted likes on Clinton and Sanders' posts, whereas such media coverage had a negative effect on Trump's. The results of the regression models for the three candidates can be found in Table 2.

The following two predictors are consistently significant across all three data sets: personalization and emotional tone. Specifically, the use of the first-person singular pronouns (such as *I*, *me*, *mine*) significantly predicts the number of likes

Table 2. Results of OLS Multiple Regression.

	Hillary Clinton	Bernie Sanders	Donald Trump
Personalization	0.098 (0.001)*	0.101 (0.006)*	0.087 (0.003)*
Cohesiveness	0.050 (0.003)	–0.017 (0.004)	0.013 (0.003)
Positive emotion	0.149 (0.002)**	0.173 (0.003)**	0.155 (0.001)**
Negative emotion	0.059 (0.004)*	0.095 (0.005)*	0.082 (0.003)*
Past	0.083 (0.003)*	0.073 (0.006)*	0.029 (0.003)
Future	0.001 (0.006)	0.009 (0.006)	0.023 (0.003)
Campaign Slogan Hashtags	0.016 (0.024)	0.057 (0.025)	0.044 (0.004)
Opponent Mention: Hillary		0.033 (0.023)	–0.006 (0.004)
Opponent Mention: Bernie	0.031 (0.023)		0.030 (0.007)
Opponent Mention: Trump	0.015 (0.005)	0.127 (0.012)**	
Post type	0.168 (0.000)**	0.149 (0.000)**	0.012 (0.010)
Media coverage	0.104 (0.010)**	0.163 (0.000)**	–0.062 (0.000)*
Constant	3,698 (0.38)**	3,861 (0.43)**	4,688 (0.39)**
Adjusted R^2	0.093	0.129	0.029
N	1,415	894	1,393

Note: This shows the standardized coefficients (beta) and the standard errors (parentheses).
*$p < 0.05$; **$p < 0.001$.

across all three candidate models (Clinton: $\beta = 0.098$; Sanders: $\beta = 0.101$; Trump: $\beta = 0.087$). The results also show that the use of positive emotions (Clinton: $\beta = 0.149$; Sanders: $\beta = 0.173$; Trump: $\beta = 0.155$) and negative emotions (Clinton: $\beta = 0.059$; Sanders: $\beta = 0.095$; Trump: $\beta = 0.082$) are associated with an increased number of likes on posts by all three candidates.

The next three predictors (Past Tense, Post Type, and Media Coverage) are also significant but not in all three data sets. In regard to using past tense, while in the case of Hillary Clinton and Bernie Sanders (Clinton: $\beta = 0.083$; Sanders: $\beta = 0.073$) campaign posts using the past tense are positively associated with a high number of likes, for Donald Trump there is no significant association. As for the post type dimension, visual posts (photos or videos) are significantly positively associated with the number of likes for the campaign's Facebook posts of Hillary Clinton and Bernie Sanders (Clinton: $\beta = 0.168$; Sanders: $\beta = 0.149$), but not for those of Donald Trump's. And when using the media coverage variable to predict the number of likes, Hillary Clinton and Bernie Sanders' mentions in national media are positively associated with the number of likes on their campaign posts (Hillary: $\beta = 0.104$; Bernie: $\beta = 0.163$), but Donald Trump's mentions on national TV channels are negatively associated with the number of likes on his campaign's posts (Donald Trump: $\beta = 0.062$).

When analyzing our results, we also uncover the most influential predictors for each candidate. In the case of Hillary Clinton, the most influential predictors are Post Type ($\beta = 0.168$) and Positive Emotion ($\beta = 0.149$). For Bernie Sanders, the most influential predictors are Positive Emotion ($\beta = 0.173$) and Media Coverage ($\beta = 0.163$). For Donald Trump's campaign posts, the use of Positive Emotions ($\beta = 0.155$) and the use of first-person pronouns (Personalization: $\beta = 0.087$) are the most influential predictors in explaining the clicktivist-like actions of his

Facebook followers. The next section will provide further interpretation and context for these striking results.

DISCUSSION

Trump's campaign stood out from the two Democratic Party candidates in several ways. Of the three data sets analyzed, the Trump campaign was nearly devoid of significant predictors as to why posts on his page enjoyed engagement from followers – and yet, Trump was the only candidate to have posts that garnered more than 240,000 likes from Facebook users. On average, Trump's campaign Facebook posts garnered (72,147 likes), two and half times more than Sanders' (28,563 likes), and nearly four times more than Clinton's (18,703 likes).

Trump could be enjoying more likes on his campaign Facebook posts simply because he is a celebrity. Past research has shown that having more friends on Facebook increases audience perceptions of social and physical attractiveness, as well as extroversion and approachability (Scott, 2014). This could possibly encourage more people to like Trump's page and posts. Thus, engagement on Facebook pages might just be a numbers game, enshrining a "rich-gets-richer" system where only the most followed get noticed.

Another possible explanation of Trump's ability to garner more likes might be the campaign's strategy to de-professionalize the electoral campaign. Previous research in other countries (Casero-Ripollés & López-Rabadán, 2016; Enli, 2017) shows how political amateurs' use of simple messaging tactics on social media was effective in spreading their candidates' political messages.

This study shows that the use of emotions (either positive or negative) was one of the main predictors of the number of likes on the candidates' Facebook posts. This corroborates the results obtained by Gerodimos and Justinussen (2015), which showed a positive correlation between the use of emotions and the number of likes on Facebook. Personalized posts (first-person singular pronouns) were also found to be positively associated with the clicktivist-like behavior of the candidates' Facebook followers. This is in line with previous findings of pre-social media research on political engagement (Lakoff, 1992).

One of the most interesting results from our research is the association between the candidates' mentions on US television channels and the clicktivist-like behavior of their Facebook followers. The observed association provides empirical evidence of a functioning "hybrid media system" (Chadwick, 2013).

However, some factors that we expected to be associated with the clicktivist-like behavior ended up not being statistically significant or being significant only for some of the candidates. For example, we expected to find a positive association between the use of the first-person plural pronouns (*Cohesiveness Dimension*), but our models did not show it. The case for the mentions of opponents shows similar results, since we only found an association between the mentions of Donald Trump by Bernie Sanders and the number of likes on candidates' Facebook pages. Given how important slogans are to campaigns (Cwalina & Falkowski, 2013; Sherif, 1937), it was also surprising how poorly they performed as a predictor

of likes on posts. This finding raises questions as to the relevance of slogans in modern campaigning on Facebook and warrants further research.

Furthermore, our data showed that visual posts (containing photos or videos) were positively associated with the number of likes for the Clinton and Sanders' campaign posts, but not for those of Trump's. This is a puzzling finding. Considering previous research (Borge & Esteve Del Valle, 2017; Esteve Del Valle, 2015b), we would expect that people would be more likely to engage with visual posts than with text-only posts. If that was the case, then we would generally expect the post containing visuals would also predict the number of likes for Trump's posts as well. To understand this result, we broke down each of the three candidates Facebook postings by post types – video, photo, status update, or link (Fig. 1). The Trump campaign postings were more evenly distributed between the four post types, whereas both the Clinton and Sanders' campaigns posted very few status updates, in favor of more photo, video, and link posts. Thus, if it is true that only the most dedicated supporters are engaging with Trump's posts, it is possible that for Trump's campaign, post types would have no predictive value if posts are liked regardless of whether they contain any media or are text-only. Future research is needed to confirm this supposition.

Last, we expected to find an association between the use of past and future tenses, but we only found the use of past tenses to be positively associated with the clicktivist-like behavior of Hillary Clinton and Bernie Sanders' Facebook followers, but not for those of Trump's, likely because Trump had no political past to talk about, and/or to be "liked" by his followers.

The limited explanatory power of our regression models brought us to reflect on the role that the Facebook timeline algorithm might have played in curating what candidates' posts Facebook users actually saw and when. Despite having liked a candidate's page, Facebook controls what content posted by a campaign will appear in a follower's timeline or feed. Facebook uses an algorithm to curate content for subscribers based on what the social networking giant thinks a user
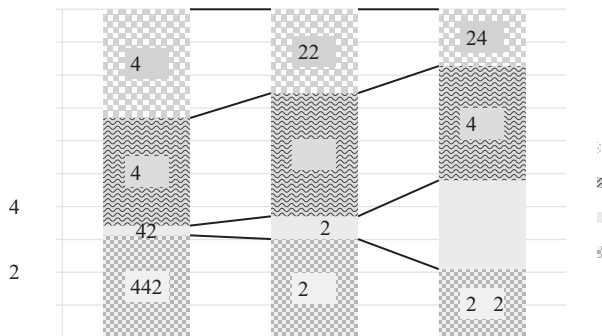

Fig. 1.   Different Types of Candidates' Facebook Posts.

will want to see (Facebook, 2014). Changes to the Facebook timeline algorithm have been a point of contention for those working in the communications industry. As some industry research estimates, the percentage of followers seeing page content in their feeds had dropped from 16% in 2012 to just 6% in 2014 after yet another series of changes to the Facebook timeline algorithm (Manson, 2014). This means that a very small percentage of followers of a candidate's Facebook page will be exposed to campaign content in their feeds, which can partly explain such low rates of post engagement. Given how the Facebook news feed algorithm works based on user's past viewing and engagement history, it is possible that only those most dedicated followers of campaign's page are seeing all of the content posted by the candidate's page they support. This limitation, of only showing "relevant" content, as determined by Facebook's algorithm to the most ardent and dedicated amongst one's Facebook followers, could skew any predictive models, as the followers are not necessarily engaging with the content in an organic, democratic way, but instead might be guided to specific content by the Facebook timeline algorithm. Such restrictions raise questions as to the relevance of social media platforms such as Facebook to modern political processes in democratic societies. If the social networking giant decides what sort of content a user wants to see, this can influence user perspectives (Epstein & Robertson, 2015) and places considerable power in the hands of Facebook, a private actor, to sway elections. Such content curation are likely examples of what Miller (2017) refers to as the rise of "phatic communion" in social media that may limit the potential of social media to support and foster social change.

Despite these challenges, the role of emotions remains a key driver in engagement, with positive and negative emotions increasing likes on posts by all three campaigns. Likewise, the traditional media (e.g., television coverage) exerts influence over social media engagement, having a positive impact on both the Sanders and Clinton campaigns, and a negative effect on Trump's.

CONCLUSION

In the age of social media, political participation can take multiple forms; with clicktivism being one of them. In this study, we analyzed the clicktivist-like behavior of the Facebook followers of Hillary Clinton, Bernie Sanders, and Donald Trump throughout the 2016 US primary election contest. Specifically, we wanted to know what factors could cause a post to be "liked" by the candidates' Facebooks followers. We collected a total of 3,702 posts made by the three candidates to their respective campaign's Facebook pages between February 1, 2016 and July 28, 2016, and employed the OLS regression analysis to discover the factors explaining post engagement (i.e., the number of likes) by candidate's Facebook followers using content-based factors (e.g., use of pronouns, emotions and hashtags) and non-content-based factors (type of post and media coverage) as predictors of the likes on the politicians' posts.

We discovered that the personalization of the posts (use of the first-person singular pronouns) and the use of emotions (either positive or negative) increased

likes across all three candidates' Facebook pages. Visual posts were also found to increase the number of likes for Hillary Clinton and Bernie Sanders, but not for Donald Trump. Along the same lines, the use of the past tense in posts was found to be positively associated with the clicktivist-like behavior of Hillary Clinton and Bernie Sanders Facebook followers, but not for those of Donald Trump.

Our data provides empirical evidence of a functioning "hybrid-media system" (Chadwick, 2013), such that television mentions boosted likes on Clinton and Sanders' posts, whereas such media coverage had a negative effect on Trump's.

In sum, predicting what sort of Facebook posts engage followers remains elusive. This might partly be explained by the limitations imposed by the Facebook timeline algorithm, which aims to only put algorithmically curated content (i.e., content automatically selected and displayed to users by a computer program based on a variety of social signals), into the newsfeeds of those users who would likely be interested in such content (Berman & Katona, 2016). Such limitations could cause a sort of flat-lining effect, whereby those highly engaged users 'like' every post to show support with little variance. Such restrictions on content delivery also raise questions around the relevance of platforms such as Facebook as a gage for political participation.

ACKNOWLEDGMENTS

REFERENCES

Abul-Fottouh, D. (2018). Brokerage roles and strategic positions in Twitter networks of the 2011 Egyptian revolution. *Policy & Internet* , *10*(2), 218–240.

Ahmadian, S., Azarshahi, S., & Delroy, L. P. (2017). Explaining Donald Trump via communication style: Grandiosity, informality, and dynamism. *Personality and Individual Differences, 107*, 40–53.

Allen, A., & Abbruzzese, J. (2018). Cambridge Analytica's effectiveness called into question despite alleged Facebook data harvesting. *NBC News*. Retrieved from https://www.nbcnews.com/politics/politics-news/cambridge-analytica-s-effectiveness-called-question-despite-alleged-facebook-data-n858256

Anstead, N. (2014). Social media analysis and public opinion: The 2010 UK general election. *Journal of Computer-Mediated Communication, 20* , 204–220.

Barkin, S. M. (1986). Eisenhower's secret strategy: Television planning in the 1952 campaign. *European Journal of Marketing, 20*(5), 18–28.

Berman, R., & Katona, Z. (2016). *The impact of curation algorithms on social network content quality and structure* (SSRN Scholarly Paper No. ID 2848526). Rochester, NY: Social Science Research Network. Retrieved from https://papers.ssrn.com/abstract=2848526

Bimber, B. (2014). Digital media in the Obama campaigns of 2008 and 2012: Adaptation to the personalized political communication environment. *Journal of Information Technology & Politics*, *11*(2), 130–150.

Boerman, S., Kruikemeier, S., & Zuiderveen Borgesius, F. J. (2017). Online behavioral advertising: A literature review and research agenda. *Journal of Advertising*, *46*(4), 363–376.

Borge, R., & Esteve Del Valle, M. (2017). Organization still matters: Parties' characteristics, posting and followers' reactions on Facebook. *International Journal of E-Politics*, *8*(1), 30–49.

Bronstein, J. (2013). Like me! Analyzing the 2012 presidential candidates' Facebook pages. *Online Information Review, 37*(2), 173–192.

Cadwalladr, C., & Graham-Harrison, E. (2018). Revealed: 50 million Facebook profiles harvested for Cambridge Analytica in major data breach. *The Guardian*. Retrieved from https://www.the-guardian.com/news/2018/mar/17/cambridge-analytica-facebook-influence-us-election

Casero-Ripollés, A., & López-Rabadán, P. (2016). Old and new media logics in an electoral campaign: The case of Podemos and the two-street mediatization of politics. *The International Journal of Press/Politics*, *21*(3), 378–397.

Ceron, A. (2015). Internet, news, and political trust: The difference between social media and online media outlets. *Journal of Computer-Mediated Communication*, *20,* 487–503.

Ceron, A., & Curini, L. (2018). e-Campaigning in the 2014 European elections: The emphasis on valence issues in a two-dimensional multiparty system. *Party Politics*, *24*(2), 105–117.

Chadwick, A. (2013). *The hybrid media system: Politics and power*. Oxford: Oxford University Press.

Chadwick, H. C. (2010). A new perspective on Twitter hashtag use: Diffusion of innovation theory. In *Proceedings of the ASIST annual meeting*, October 22–27, Pittsburgh, PA, USA.

Chowdhury, A. (2009). *Top Twitter trends of 2009* [Blog Post]. Retrieved from https://blog.twitter.com/2009/top-twitter-trends-of-2009

Corcoran, P. E., & Kendall, K. E. (1992). Communication in the first primaries: The "voice of the people" in 1912. *Presidential Studies Quarterly*, *22*(1), 15–29.

Cwalina, W., & Falkowski, A. (2013). Cultural context of the perceptual fit of political parties' campaign slogans: A Polish case. In K. Gouliamos, A. Theocharous, & B. Newman (Eds.), *Political marketing: Strategic campaign culture* (pp. 132–155). New York, NY: Taylor & Francis.

Darwell, B. (2012). *'People talking about this' defined* [Online Article]. Retrieved from http://www.adweek.com/socialtimes/people-talking-about-this-defined/273447

Dryzek, J. S. (2000). *Deliberative democracy and beyond: Liberals, critics, contestations*. Oxford: Oxford University Press on Demand.

Eltantawy, N., & Wiest, J. B. (2011). The Arab spring: Social media in the Egyptian revolution: Reconsidering resource mobilization theory. *International Journal of Communication*, *5*, 1207–1224.

Enli, G. (2017). Twitter as an arena for authentic outsider: Exploring the social media campaigns of Trump and Clinton in the 2016 US presidential election. *European Journal of Communication*, *32*(1), 50–61.

Epstein, R., & Robertson, R. E. (2015) The search engine manipulation effect (SEME) and its possible impact on the outcomes of elections. *Proceedings of the National Academy of Sciences of the United States of America*, *112*, 33.

Esteve Del Valle, M. (2015a). YoSoy132 movement: Tweets and votes in the 2012 Mexican presidential election. *Estudios Latinoamericanos, 35,* 105–128.

Esteve Del Valle, M. (2015b). *Are social media challenging politics? Interaction in Catalan parties' Facebook pages and among Catalan MPs' Twitter accounts*. Ph.D. thesis. Retrieved from http://openaccess.uoc.edu/webapps/o2/handle/10609/43801

Esteve Del Valle, M., & Borge Bravo, R. (2017). Leaders or brokers? Potential influencers in online parliamentary networks. *Policy and Internet*, *10*(1), 61–86.

Facebook. (2013). *Public conversations on Facebook* [Press release]. Retrieved from http://newsroom.fb.com/news/2013/06/public-conversations-on-facebook/

Facebook. (2014). *An update to news feed: What if means for businesses* [Press release]. Retrieved from https://www.facebook.com/business/news/update-to-facebook-news-feed

Facebook. (2015). *2015 year in review* [Press release]. Retrieved from http://newsroom.fb.com/news/2015/12/2015-year-in-review

GDELT. (2016). *Presidential campaign 2016: Candidate television tracker* [Website]. Retrieved from http://television.gdeltproject.org/cgi-bin/iatv_campaign2016/iatv_campaign2016

Gerodimos., R., & Justinussen, J. (2015). Obama's 2012 Facebook campaign: Political communication in the age of the Like button. *Journal of Information Technology and Politics*, *12*(2), 113–132.

Gil de Zúñiga, H., Jung, N., & Valenzuela, S. (2012). Social media use for news and individuals' social capital, civic engagement and political participation. *Journal of Computer-Mediated Communication*, *17*(3), 319-336. doi:10.1111/j.1083-6101.2012.01574.x

Grassegger, H., & Krogerus, M. (2018). *The data that turned the world upside down: How Cambridge Analytica used your Facebook data to help the Donald Trump campaign in the 2016 election*. [Online Article]. Retrieved from https://motherboard.vice.com/en_us/article/mg9vvn/how-ourlikes-helped-trump-win

Grčar, M., Cherepnalkoski, D., Mozetič, I., & Novak, P. K. (2017). Stance and influence of Twitter users regarding the Brexit referendum. *Computational Social Networks*, *4*(1), 6.

Gruzd, A. (2016). Netlytic: Software for automated text and social network analysis. Retrieved from http://Netlytic.org

Gruzd, A., & O'Bright, B. (2017) Big data and political science: The case of VKontakte and the 2014 Euromaidan Revolution in Ukraine. In L. Sloan, & A. Quan-Haase (Eds.), *The SAGE handbook of social media research methods* (pp. 645–661). London: Sage Publication.

Gruzd, A., & Roy, J. (2014) Investigating a political polarization on Twitter: A Canadian perspective. *Policy and Internet*, *6*(1), 28–45.

Gruzd, A., & Tsyganova, K. (2015). Information wars and online activism during the 2013/2014 crisis in Ukraine: Examining the social structures of Pro- and Anti-Maidan groups. *Policy and Internet*, *7*(2), 121–158.

Håkansson, J. (2012). The use of personal pronouns in political speeches: A comparative study of the pronominal choices of two American presidents. Retrieved from http://lnu.diva-portal.org/smash/get/diva2:531167/FULLTEXT01.pdf

Halupka, M. (2014). Clicktivism: A systematic heuristic. *Policy and Internet*, *6*(2), 115–132.

Halupka, M. (2018). The legitimisation of clicktivism. *Australian Journal of Political Science*, *53*(1), 130–141.

Helmbrecht, J. (2002). Grammar and function of we. In A. Duszak (Ed.), *Us and others* (pp. 31–50). Amsterdam: Benjamins.

Hogan, B. (2011). Visualizing and interpreting Facebook networks. In D. Hansen, B. Shneiderman, & M. Smith (Eds.), *Analysing social media networks with NodeXL* (pp. 165–179). Burlington: Elsevier.

Johnson, T. J. (2014). Credibility of social network sites for political information among politically interested internet users. *Journal of Computer-Mediated Communication*, *19*, 957–974.

Jordan, K. N., & Pennebaker, J. W. (2017). The exception or the rule: Using words to assess analytic thinking, Donald Trump, and the American presidency. *Translational Issues in Psychological Science*, *3*(3), 312.

Karpf, D. (2010). Online political mobilization from the advocacy group's perspective: Looking beyond clicktivism. *Policy and Internet*, *2*(4), 7–41.

Kendall, E. (1998). Communication Patterns in Presidential Primaries 1912–2000: Knowing the Rules of the Game. Research Paper R–19, Cambridge, MA : Joan Shorenstein Center on the Press, Politics and Public Policy, John F. Kennedy School of Government, Harvard University.

Khatua, A., & Khatua, A. (2016). Leave or Remain? Deciphering Brexit deliberations on Twitter. In *2016 IEEE 16th international conference on data mining workshops (ICDMW)* (pp. 428–433).

Kreiss, D., Lawrence, R. G., & McGregor, S. C. (2018). In their own words: Political practitioner accounts of candidates, audiences, affordances, genres, and timing in strategic social media use. *Political Communication*, *35*(1), 8–31.

Kreiss, D., & McGregor, S. (2018). Technology Firms Shape Political Communication: The Work of Microsoft, Facebook, Twitter, and Google With Campaigns During the 2016 U.S. Presidential Cycle. *Political Communication*, *35*(2), 155–177. DOI: 10.1080/10584609.2017.1364814

Labrecque, L. I. (2014). Fostering consumer-brand relationships in social media environments: The role of parasocial interaction. *Journal of Interactive Marketing, 28*, 134–148.

Lakoff, R. T. (1992). *Talking power: The politics of language*. New York, NY: Basic Books.

Larsson, O. (2014). Online all the time? A quantitative assessment of the permanent campaign on Facebook. *New Media and Society*, *18*(2), 274–292.

Larsson, A. O. (2015). Comparing to prepare: Suggesting ways to study social media today – and tomorrow. *Social Media + Society*, *1*(1), 1–2.

Lee, H., & Hsieh, G. (2013). *Does slacktivism hurt activism? The effects or moral balancing and consistency in online activism*. In *Proceedings of the SIGCHI conference on human factors in computing systems*, April 27, Paris, France.

Lilleker, D. G., Koc-Michalska, K., Negrine, R., Gibson, R., Vedel, T., & Strudel, S. (2017). Social media campaigning in Europe: Mapping the terrain. *Journal of Information Technology and Politics*, *14*(4), 293–298.

Lim, M. (2103). Many click but little sticks: Social media activism in Indonesia. *Journal of Contemporary Asia*, *43*(4), 636–657.

Manson, M. (2014). Facebook zero: Considering life after the demise of organic reach [Online Article]. Retrieved from https://social.ogilvy.com/facebook-zero-considering-life-after-the-demise-of-organic-reach/

Messina, C. (2007). Groups for Twitter; or a proposal for twitter tag channels. [Personal Blog] FactoryCity. Retrieved from http://factoryjoe. com/blog

Miller, V. (2017). Phatic culture and the status quo: Reconsidering the purpose of social media activism. *Convergence*, *23*(3), 251–269.

Mozorov, E. (2009). The brave new world of slacktivism. *Foreign Policy.* Retrieved from https://netef-fect.foreignpolicy.com/posts/2009/05/19/the_brave_new_world_of_slacktivism

Nix, A. (2016, September 27). Power of big data and psychographics. In *The 2016 concordia annual summit*, New York. Retrieved from http://bit.ly/2gD8FbL. Accessed on December 29, 2016.

Osborne, H., & Parkinson, H. J. (2018). Cambridge Analytica scandal: The biggest revelations so far. *The Guardian*. Retrieved from https://www.theguardian.com/uk-news/2018/mar/22/cambridge-analytica-scandal-the-biggest-revelations-so-far

Pavia, G. (2011). *From clicktivism to web-storytelling. Audiences from TV politics to Web participation*. Working Paper. Retrieved from https://issuu.com/mediaresearch/docs/cmcswp_0311a

Pennebaker, J. W., Boyd, R. L., Jordan, K., & Blackburn, K. (2015). *The development and psychometric properties of LIWC2015*. Austin, TX: University of Texas at Austin.

Pew Research Center. (2016). *Social networking fact sheet* [Press release]. Retrieved from http://www.pewinternet.org/2016/11/11/social-media-update-2016/#fn-17239-1

Pilkington, E., & Michel, A. (2012). Obama, Facebook and the power of friendship: The 2012 data election. *The Guardian*. Retrieved from https://www.theguardian.com/world/2012/feb/17/obama-digital-data-machine-facebook-election

Rossini, P. G. C., Hemsley, J., Tanupabrungsun, S., Zhang, F., Robinson, J., & Stromer-Galley, J. (2017). Social media, U.S. presidential campaigns, and public opinion polls: Disentangling effects. In *Proceedings of the 8th international conference on social media and society*, New York, NY (pp. 56:1–56:5).

Scott, G. H. (2014). More than friends: Popularity on Facebook and its role in impression formation. *Journal of Computer-Mediated Communication*, *19*(3), 358–372.

Sherif, M. (1937). The psychology of slogans. *Journal of Abnormal and Social Psychology, 32*, 450–461.

Skoric, M. M. (2012). What is slack about slacktivism? *Methodological and Conceptual Issues in Cyber Activism Research,* InterAsia RoundTable, 77–92.

Sweetser, K. D., & Lariscy, R. (2008). Candidates' make good friends: An analysis of candidates' uses of Facebook. *International Journal of Strategic Communication*, *2*, 175–198.

Tausczik, Y. R., & Pennebaker, J. W. (2010). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of Language and Social Psychology*, *28*, 24–54.

Thaler, R. (2016). *Misbehaving: The making of behavioural economics*. New York, NY: WW Norton.

Theocharis, Y. (2015). The Conceptualization of digitally networked participation. *Social Media + Society*, *1*(2), 1–14.

Turcotte, J., York, C., Irving, J., Scholl, R. M., & Pingree, R. J. (2015). News recommendations from social media opinion leaders: Effects on media trust and information seeking. *Journal of Computer-Mediated Communication, 20,* 520–535.

Utz, S. (2009). The (potential) benefits of campaign via social network sites. *Journal of Computer-Mediated Communication*, *14*, 221–243.

Valerio, G., José Herrera-Murillo, D., Villanueva-Puente, F., Herrera-Murillo, N., & Rodríguez-Martínez, M. (2015). The relationship between post formats and digital Engagement: A study

of the Facebook pages of Mexican universities. *RUSC. Universities and Knowledge Society Journal*, *12*(2), 50–63.

Vazquez, M., & Murphy, P. (2018). Trump isn't the only Republican who gave Cambridge Analytica big bucks. *CNN*. Retrieved from https://www.cnn.com/2018/03/20/politics/cambridge-analytica-republican-ties/index.html

Verba, S., Lehman, S., Kay, B., & Henry, E. (1995). *Voice and equality: Civic voluntarism in American politics*. Cambridge, MA: Harvard University Press.

Verba, S., Schlozman, K., & Brady, H. (1995). Voice and equality : *Civic voluntarism in american politics*. Cambridge, Mass.: Harvard University Press.

White, M. (2010). Clicktivism is ruining the left activism, *The Guardian*. Retrieved from https://www.theguardian.com/commentisfree/2010/aug/12/clicktivism-ruining-leftist-activism

White, B., Castleden, H., & Gruzd, A. (2015). Talking to Twitter users: Motivations behind Twitter use on the Alberta oil sands and the Northern Gateway Pipeline. First Monday, *20*(1). DOI: 10.5210/fm.v20i1.5404

Wilson, J. (1990). *Politically speaking*. Oxford: Basil Blackwell.

Youyou, W., Kosinski, M., & Stillwell, D. (2015). Computer-based personality judgments are more accurate than those made by humans. *PNAS*, *112*(4), 1036–1040.