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Presidential Communication in the "Twittersphere": A Functional Network Analysis of President Trump's Direct Messaging

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This study examined President Donald J. Trump's "Twittersphere." It was a multimethod functional analysis of Trump's ego network (him and the people he follows, mentions, retweets, and replies to) of 741 tweets and retweets in his first year of office. The findings indicate that President Trump tends to tweet about, retweet, and mention (tag) himself, his government, conservative media, and family more than people of opposing political ideologies and the liberal media. More than a third of his tweets and retweets were positive self-acclaims, especially about his character, his government, his family, and conservative media. Policy matters appeared to be of secondary concern.

Keywords: President Trump, Twitter, functional analysis, social network analysis, ego network

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Online social networks have revolutionized human communication and interactions beyond physical space and geography (Castells, 2015; Himelboim, McCreery, & Smith, 2013; Lieberman, 2014; McCormick, 2016). Today, Twitter is a big name in political communication and politicians use it to directly communicate with their target public without any traditional media filters (Lee & Xu, 2018; Suhay, Bello-Pardo, & Maurer, 2018). President Donald Trump has become one of the most popular stars on Twitter who has maintained a daily routine of tweeting and re-tweeting on a variety of subjects in which he tags his people of interest. A typical example is that on March 13, 2018, the international community and news media learned through the President's habitual early-morning tweets that he had dismissed his Secretary of State, Rex Tillerson (Gaouette, Collins, & Merica, 2018). Tillerson had just returned from a diplomatic trip to Africa about an hour earlier, and reportedly read about his firing on Twitter like everyone else. Similarly, on November 24, 2019, President

Trump used Twitter to attack Marie L. Yovanovitch, the former United States ambassador to Ukraine, as she testified in the president's impeachment inquiry (Savage & Shear, 2019).

This study explored President Trump's Twitter ego network in relation to his tweets' functions and subjects. In social network analysis (SNA), an ego network consists of "a single actor (ego) together with the actors (alters) connected to the ego, and all of the links among those alters" (Everett & Borgatti, 2005, p. 31). In order for the ego to be informed and connected to important sources of information, he/she needs to have direct connections with people or nodes from different backgrounds and demographics (Granovetter, 1983; Wasserman & Faust, 2009). A personal account on Twitter is a good example of an ego network, in which the owner is the ego, and the followers and follows are the actors or alters.

With more than 80 million followers on his Twitter account (as of May 2020), President Trump only follows 46 people (his family members and close associates). This means while Trump can only see the content of those 46 Twitter accounts, his tweets are exposed to more than 80 million followers some of whom often retweet and respond to those tweets. That is when the structure of his Twitter ego network and the functions and subjects of his tweets become important.

Using social network analysis and Functional Theory of Political Campaign Discourse, the purpose of this study was to examine how President Trump uses Twitter to communicate his thoughts and opinions with the world in relation to the people he is surrounded with on Twitter and with what functions and subjects. In other words, we examined President Trump's Twitter use and how he associates himself with other people and subjects in his ego network on Twitter.

The functional theory of political campaign discourse suggests that political advertising spots have three foundational functions: acclaim, attack and defense on the topics of policy and character (Benoit, 2019; Lee & Benoit, 2004). Acclaim refers to positive words, symbols, statements or messages to enhance one's reputation (Benoit, Blaney, & Pier, 2000). Attack consists of negatives words, symbols, statements or messages than emphasize the opponents' weak points and disadvantages (Evans, Smith, Gonzales, & Strouse, 2017; Lee & Benoit, 2004). Defense refers to words, symbols, statements or

messages that disprove attacks of the opponents (Benoit & Stein, 2005). These three functions (acclaim, attack and defense) are related to the subjects of policy (one's past accomplishments, plans, and goals) and character (the public perception of the politician, his/her perception of him/herself, his/her abilities, and other personal qualities, attributes and ideals) in messages (Lee & Benoit, 2004; Benoit, 2019).

Previous studies have used functional theory in studying political advertising spots, debates, speeches and other forms of political communication in live tweeting during Presidential primary debates (Heim, 2016) and political candidates' Facebook platforms (Evans et al., 2017; Shen & Benoit, 2016). This study adopted a different approach in two main ways. First, it focused on the tweets and retweets of a sitting President of the U.S. to systematically examine the functions and subjects of those tweets and retweets. Second, this study examined the composition of President Trump's "Twittersphere" or ego network to explore who are the targets in his tweets and re-tweets.

The time frame of the study was from November 8, 2016 (the presidential election day when he was declared the winner of the election) to January 20, 2018 (one-year anniversary of his presidency). The NodeXL Pro software program was used to retrieve the Twitter data from President Trump's personal Twitter account.

LITERATURE REVIEW

Online Social Networks and the Concept of Ego Network

The growth of social media such as Twitter has facilitated and expanded opportunities for political communication used by politicians to communicate their messages to their target public (Arceneaux & Weiss, 2010; Himelboim et al., 2013; Lieberman, 2014; Suhay et al., 2018). Social media allow individuals to both frame and spread their own content in addition to building and maintaining relationships and getting involved in self-presentation activities (Boyd & Ellison, 2007; French et al., 2012). Not only do people use social media to take part in socio-political discussions, but also to form such discussions by creating, sharing, and spreading information online (Arceneaux & Johnson, 2013; Castells, 2015; Himelboim et al., 2013; Himelboim, Smith, Rainie, Shneiderman, & Espina, 2017; Muralidharan, Rasmussen, Patterson, & Shin, 2011; Williams, Terras, & Warwick, 2013). These political discussions do not exist free of social

and ideological beliefs and values even though online networks are independent of geographic and time boundaries (French et al., 2012). Studies have shown that people often use social media to create virtual communities, conversations and discourses, often with people like them (birds of a feather flock together) (Himelboim et al., 2013; McPherson, Smith-Lovin, & Cook, 2001). The ability to network with like-minded people create some new dynamics in political discourse that bring into question the importance of diversity of thoughts and information flow in political discourse (Brandt et al., 2014; Crawford et al., 2013; Wetherell et al., 2013). The power dynamics in online social networks is similar to the power dynamics in the offline world even though online social networks are less hierarchal than offline social networks. In other words, a few people are more powerful and popular by having the highest number of connections or followers, sharing, and replies, all of which count as incoming or in-degree ties, while the majority of the network members do not have many in-degree connections (Kumar, Novak, & Tomkins, 2010; Lusher & Ackland, 2011; Meraz, 2009; Szell, Lambiotte, & Thurner, 2010). As a result, power is unevenly distributed among participants in a given social network platform (Adamic, Lukose, Puniyani, & Huberman, 2001; Barabási, 1999). According to Castells (2009), power involves asymmetrical relationships in which some actors influence decisions made by other members of their group. In Twitter networks, actors who possess such power and influence are said to have in-degree ties with other actors who follow, retweet and mention them. Those actors who mainly follow, retweet and mention others are then described as having out-degree relationships with the leading actors (Lieberman, 2014). This power structure is unidirectional, as the lead actors' relationship with followers, re-tweeters, and people who just reply is not reciprocal. In this regard, a few dominant and popular actors gain the highest number of followers, retweets, and mentions on Twitter (Cha, Haddadi, Benevenuto, & Gummadi, 2010; Romero, Galuba, Asur, & Huberman, 2011; Wilson, Boe, Sala, Puttaswamy, & Zhao, 2009).

Currently, the 10 most popular Twitter users are Barack Obama (118 million followers) followed by Justin Bieber (111.7 million), Katy Perry (108.4 million), Rihanna (96.9 million), Taylor Swift (86.1 million), Cristiano Ronaldo (85 million), Lady Gaga (81.4 million), President Trump (80.4 million), Ellen DeGeneres (80.1 million), and Ariana Grande (74 million). These popular Twitter users follow a very small number of users and

entities they already know—family, friends, co-workers, and very few admirers. This means that these popular users are only exposed to the content of users who are like them, not a vast amount of information from diverse groups of people and entities. In contrast, millions of people see tweets from these celebrities in their own timelines, and often passively retweet, like (favorite), or reply to these tweets (Cha et al., 2010; Romero et al., 2011). Stieglitz and Dang-Xuan (2013) found that emotional tweets are more likely to be retweeted than those that are neutral. These ties help popular people like President Trump and celebrities have strong "ego networks," a concept referring to a social relationship where an actor (ego) is connected to several actors (alters) in a web of links (Everett & Borgatti, 2005; Granovetter, 1983). This network includes the ego, his or her contacts, and the contacts associated with the ego's contacts (Granovetter, 1983). In such networks, the ego may have friends who know one another as well as acquaintances who do not know each other (Kadushin, 2012).

Social network theory suggests that existence of a variety of relationships is very important in the ego network for the better and smoother flow of information (Granovetter, 1973; Wasserman & Faust, 2009). This is so because direct connections with people from different backgrounds and demographics are beneficial to the ego because he or she has access to diverse social groups, and information which generally boosts the ego's social capital (Granovetter, 1973). In other words, close friends and family members are not powerful sources of information in an ego network, because they have similar thoughts, opinions, and sources of information as the ego (Burt, 1992; Wasserman & Faust, 2009). This is why in social networks, weak ties (those different from us whom we do not know much) are more important and valuable than strong ties (those like us whom we know very well), especially when it comes to relationships and diffusion of information, innovation, and so forth (Granovetter, 1973; Kadushin, 2012).

President Trump is a good example of a popular ego on the Twitter network. With the more than 80 million followers, he only follows 46 people who include his family members (Melania, Ivanka, Eric, Donald Jr., and Tiffany Trump), the White House high-profile staff members, Trump hotels and other family businesses, a few celebrities, conservative media hosts and shows, and popular social media admirers. Figure 1 is a representation of Trump's ego network on Twitter in May 2020

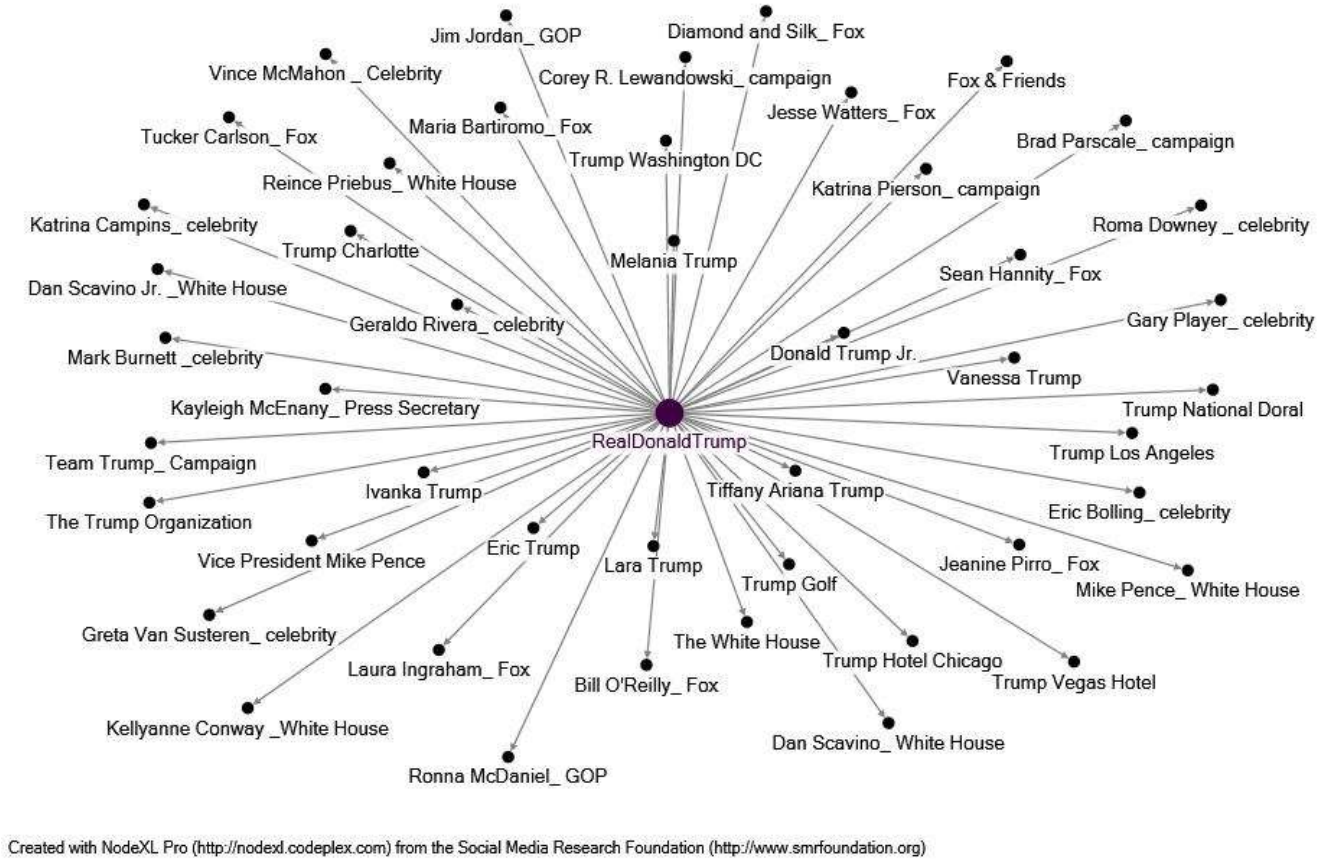

Figure 1. President Trump's Ego Network on Twitter. Trump is at the center of the network with his out-degree ties to people and entities he follows on Twitter.

In addition to following and being followed, Twitter networks are structured based on direct ties with retweeting and mention and vice versa (Lee & Xu, 2018; Suhay et al., 2018). For instance, thousands of people make direct connections with President Trump on Twitter by retweeting his tweet, mentioning him in their own tweets, and replying to his tweets. This function enables people to directly establish a connection with people beyond their following and follower network.

The Functional Theory of Political Campaign Discourse

The Functional Theory of Political Campaign is an adaptation of the Functional Theory of Political Campaign Discourse (Benoit, 1999; Benoit, 2019), which suggests that political messages have three foundational utility values: acclaim, attack and defense on the topics of policy and character (Benoit, 1999). Acclaims "are utterances that are intended to enhance the reputation of the speaker" (Benoit, 2000, p.113). Attacks "are

negative utterances that emphasize an opponent's disadvantages" (Lee & Benoit, 2004, p. 69). Defenses are utterances that refute attacks (Benoit, 2019; Benoit, Stein & Hansen, 2005). Essentially, defenses are best used for image or reputation restoration (Benoit, 2019). The theory recommends the application of these three functions to the subjects of policy and character. Generally, policy refers to a politician's past accomplishments, and future plans and goals. On the other hand, character is about the public perception of the candidate, and generally deals with leadership ability, and other personal qualities, attributes and ideals (Benoit, 1999; Benoit 2019).

Overall, the theory asserts that although attacks are easier to fabricate and instantaneously draw attention, acclaims appear to be a more reliable instrument to rally voters in the sense that in the long run voters tend to detest the mudslinging that is imbued in attacks (Benoit et al., 2000; Benoit, 2019). Defenses, on the other hand, are the least used essentially because any candidate who spends more time and resources on defense of his or her policies and character inadvertently pulls himself or herself off message (Lee & Benoit, 2004).

This approach has been used in a variety of political communication research such as the examination of political debates in France, the United Kingdom, Taiwan, Finland and Poland; in political campaign advertising; in political party affiliation and campaigns; and in political conventions (Benoit, Wen, & Yu, 2007; Benoit & Benoit-Bryan, 2014; Dudek & Partacz, 2009; Isotalus, 2011). Political communication studies on social media use have equally adopted this approach. Typical examples are Heim's (2016) study on live tweeting during Presidential primaries debates and Shen and Benoit (2016), who examined political candidates' Facebook platforms. Although these studies content analyzed tweets, they largely reflect the traditional research method of classifying tweets in political advertising spots, debates, speeches and other forms of political communication.

With its explanatory power, this theory is suited for this study that is designed not just as a classificatory content analysis of President Trump's tweets, but more importantly to explain the functions of those tweets, or how and why he utilizes them, and identify their main recipients in his inner circle.

Research Questions

Overall, political communication research on social networks, in particular Twitter, has focused on the networks and shared contents among network members (Himelboim et al.; 2013; Lee & Xu, 2018; Lieberman, 2014; Suhay et al., 2018; Williams et al., 2013). Although the functional approach research has been in social media research before, they have largely followed the traditional research method of classifying tweets in political advertising, debates, speeches and other forms of political communication (Heim, 2016; Shen & Benoit, 2016). To our knowledge, there is no research on the relationships between network structure and functions and subjects of tweets, which limits our ability to suggest research hypotheses. Therefore, six research questions will be asked to address the research problem.

As mentioned earlier, President Trump's Twitter account is ego-central with more than 80 million followers and only 46 follows that include family members, government officials, Trump businesses, FoxNews and Associates, and a few celebrities. This means he does not see tweets from the over 80 million followers who are his in-degree ties—through following and who often retweet, mention, and reply to him—making him more central and important with those in-degree ties (Cha et al., 2010; Romero et al., 2011; Wilson et al., 2009). In contrast, since President Trump is only exposed to information from a small group of like-minded strong ties on Twitter, he does not have a lot of choices for retweets, which lowers his level of out-degree/relationships as well as exposure to a variety of information sources and actors (Lieberman, 2014). Hence, research question 1 asked about his retweets and mentions.

RQ1: How did President Trump structure the out-degree ties of his ego network in tweets and retweets?

According to the functional theory of political campaign discourse, political messages consist of functions such as acclaim, attack, or defense often focus on subjects or topics of policy and character of one's self, in-groups, or opponents (Benoit, 2019; Benoit et al., 2005; Shen & Benoit, 2016). Thus, research questions 2 and 3 asked:

RQ2: What were the main functions of President Trump's tweets and retweets?

RQ3: Which principal subjects did President Trump address in his tweets and retweets?

As mentioned earlier, no research exists on the relationships between functions and subjects of tweets with someone's ego network. Thus, the following research questions asked:

RQ4: What were the main functions of President Trump's tweets and retweets in relation to his out-degree referencing to people and organizations?

RQ5: Whom did President Trump mainly reference in his tweets and retweets and on what subjects?

RQ 6: What were the main functions of President Trump's tweets and retweets in relation to the subjects of his messages?

METHODS

This was a multimethod study of President Trump's Twitter network and functional analysis of his tweets and retweets. The NodeXL Pro software program was used to retrieve the Twitter data on January 21, 2018. This software is a powerful tool for social network analysis, which imports the structure of networks created on social media into an Excel sheet and facilitates data visualization and analysis (Himelboim at al., 2013; Himelboim at al., 2017).

Altogether, we retrieved 3,200 tweets and retweets from October 20, 2016 to January 21, 2018. However, given the parameters we set for this study, our sample of President Trump's activity on Twitter consisted of 2,938 tweets and retweets from November 8, 2016 (Presidential the election day) to January 20, 2018 (one-year anniversary of his presidency). Since the focus of this study was on ego network, only retweets and tweets with the mentions or tagging starting with the sign "@," were included in the study, resulting in a total of 741 tweets and retweets. While a retweet was only counted as one out-degree tie, every mention or tag was counted as an out-degree connection—meaning a single tweet can create several out-degree ties based on the number of mentions or tags.

There were three levels of analysis in this study. First, Trump's out-degree connections (retweets and mentions) were analyzed based on the type of content of tweet (coded as 1) and retweet (coded as 2). Tweets were also analyzed based on categories of out-degree (people or entities) mention or references and were coded as: 1) Family

(Trump's wife, children and their partners), 2) government (The White House, Congress, senate, military, FBI, state level governments), 3) follower (those who identify as Trump supporters and follower), 4) conservative media (FoxNews and other entities and individuals associated with it, media that identify as conservative or right wing), 5) liberal media (all media outlets that identify as liberal, leftwing, objective, or non-conservative) (Shor, van de Rijt, Ward, Askar, & Skiena, 2014), 6) GOP (members of Republican party), 7) Dems (members of Democrat party), 8) business (companies and people associated with business), 9) celebrity (sports figures, singers, musicians, and other popular people), 10) international affairs (presidents, prime ministers, international NGOS, the UN, ambassadors, diplomats, and international political leaders), 11) self (realdonaldTrump and POTUS), 12) other (everything that doesn't fit the above eleven categories). NodeXL Pro software was used to illustrate the categories of out-degree connections in Trump's ego network.

The second level of analysis examined the functions of Trump's tweets based on functional theory of political campaign discourse. All 741 tweets and retweets were content analyzed for their functions and subjects. Functions were measured in four categories as: acclaim, attack, defense, and other (Benoit, 1999). Acclaim refers to a positive comment or statement that includes praise, commendation, compliment, applaud, extol, and cheer. Attack refers to a statement with a negative emphasis on something or someone including words such as criticize, oppose, object to, strike, invade, condemnation. Defense refers to resistance against something or someone and justifying one's own ideology, action or behavior. Acclaim was coded as 1, attack as 2, defense as 3, and everything else as other (coded as 4). The subjects were measured in three categories: policy, character, and other. Policy refers to discussions on government and other institutions, plans and strategies, guidelines, and other public decision-making issues. Character refers to discussions on a person, or someone's personality, temper, and mentality. The following are examples of different functions and subjects of Trump's tweets. The tweet, "Voters just love me," was coded as acclaim on character. The tweet, "I've always known that crooked Hillary is not the best person to decide our immigration policy," is an attack on the topic Policy. The tweet, "There was no collusion on my part with the Russians" was coded as defense on character.

Tweets with a mixture of acclaim, defense, or attack were coded based on function that was more dominant than the other. For instance, "From @FoxNews "Bombshell: In 2016, Obama dismissed idea that anyone could rig an American election." Check out his statement –Witch Hunt!" was a mixture of attack and defense, but was coded as attack because the attack was more dominant. Similarly, "RT @JacobAWohl: @realDonaldTrump The #MAGA great again movement is WINNING, and the left-wing media can't stand it!" was a combination of acclaim and attack, which was coded as acclaim. The tweet, "The Roger Stone report on @CNN is false - Fake News. Have not spoken to Roger in a long time - had nothing to do with my decision" was coded as defense although it was a mix of attack and defense.

All tweets (N= 741) were coded by one of the researchers. To ensure a level of consistency in coding, the other researcher coded slightly over 10% of the sample (n = 81 for each function and subject). Wimmer and Dominick (2011) recommend using 10% of the sample to establish inter-coder reliability. Cohen's kappa was calculated to measure the inter-coder reliability, or the level of agreement between the coders on each variable (Riffe, Lacy, & Fico, 2014). The kappa coefficients were .839 for Subject and .910 for Function, which showed high levels of reliably between the coders (Fleiss et al., 2003).

The third level of analysis focused on Trump's ego network in relation to the functions of his tweets and retweets. Chi-square analyses were conducted to examine the relationship between his out-degree connections and the content of his tweets and retweets.

RESULTS

In our data of 741 Twitter posts, 423 (57.2%) were tweets and 317 (42.8%) were retweets. **Research question 1** asked how President Trump structured the out-degree ties of his ego network in tweets and retweets. The data on RQ1 included 741 tweets and retweets and 113 mentions or tags of his tweets (N= 854). As Figure 2 and Table 1 illustrate, Trump's most frequent out-degree references and sources of information were his own government (28.5%), conservative media (21.7%), mainstream media (15.0%), family (8.8%), popular followers (8.3%), GOP (5%), and international affairs (4.6%). Democratic Party (0.4%), business (1.4%), and celebrities (2.5%) were his least referenced/retweeted connections.

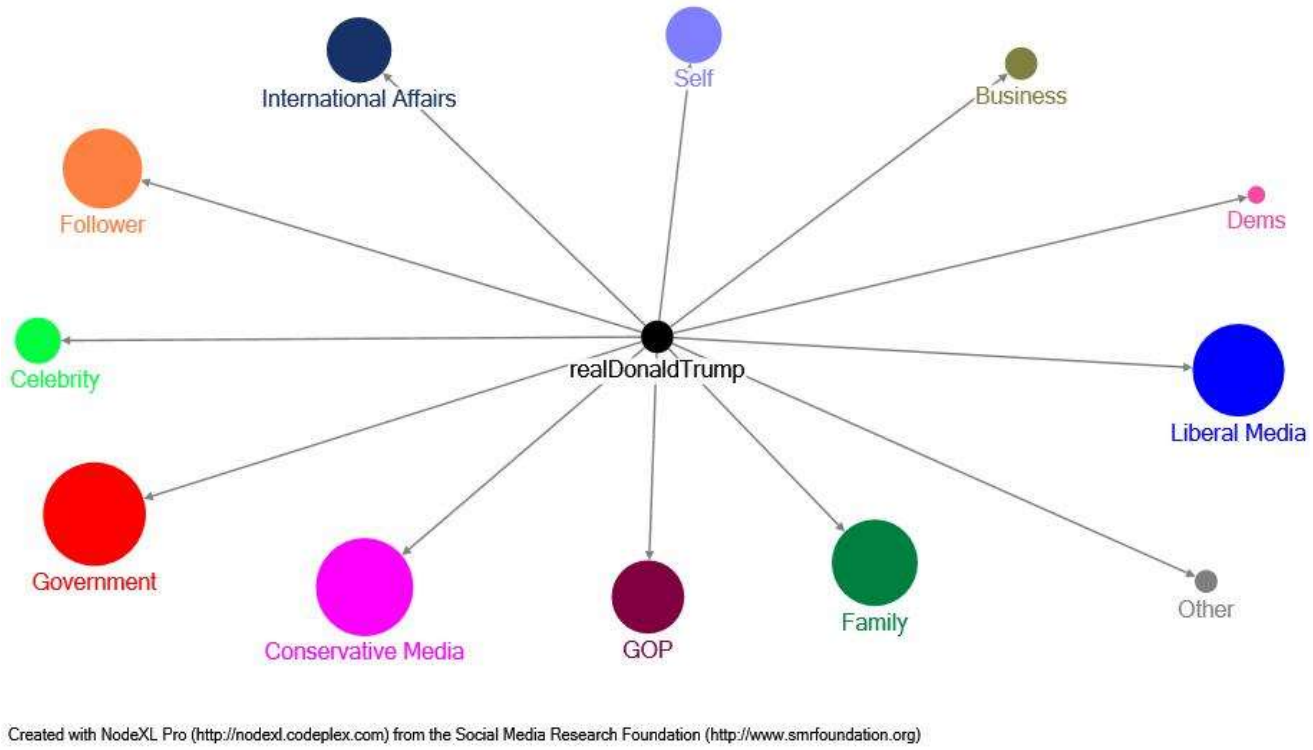

Figure 2. Out-degree ties in Trump's ego network. The color and size of the category represent the frequency of Trump's out-degree ties (retweets and mentions) from the greatest to the least: Red, magenta, blue, green, orange, dark red, dark blue, purple, light green, olive green, and gray.

As Table 1 shows, there were significant differences in President Trump's references (mentioning) in tweets and his retweets of people and organizations ($\chi 2 = 138.435$, $df = 11$, $p < .000$). Trump mentioned his government staff and entities (30.4%) significantly more than retweeting them (25.2%). He retweeted conservative media (27%) significantly more than tweeting about them (18.5%). In contrast, he had significantly more tweets about mainstream media (21.1%) than retweets (4.7%). Trump retweeted his family (14.5%) significantly more than mentioning them (5.4%) in his tweets. Moreover, Trump mentioned international political figures and entities significantly more in his tweets (6.3%) than retweeting them (1.6%). Also, he retweeted himself (4.4%) more than mentioning (2.1%).

Table 1
Out-degree Connections of Trump's Ego Network in Relation to Tweet and Retweet

Category	Type		
	Tweet	Retweet	Total
Family	29 (5.4%)	46 (14.5%)	75 (8.8%)
Government	163 (30.4%)	80 (25.2%)	243 (28.5%)
Follower	20 (3.7%)	53 (16.7%)	73 (8.5%)
Conservative Media	99 (18.5%)	86 (27.0%)	185 (21.7%)
Mainstream Media	113 (21.1%)	15 (4.7%)	128 (15.0%)
GOP	28 (5.2%)	15 (4.7%)	43 (5.0%)
Dems	3 (0.6%)	0 (0.0%)	3 (0.4%)
Business	12 (2.2%)	0 (0.0%)	12 (1.4%)
Celebrity	21 (3.9%)	0 (0.0%)	21 (2.5%)
International Affairs	34 (6.3%)	5 (1.6%)	39 (4.6%)
Self	11 (2.1%)	14 (4.4%)	25 (2.9%)
Other	3 (0.6%)	4 (1.3%)	7 (0.8%)
Total	536	318	854

$\chi^2 = 138.435$; $df = 11$; $p < .000$

It is noteworthy that the data for research question 2-5 only included the 741 tweets and retweets, not the 113 mentions, because the mentions do not have any content to analyze other than the mentioned persons' Twitter name.

Research question 2 asked about the main functions of Trump's tweets and retweets. Overall, there were more of acclaims (69.9%) than attacks (22.6%) and defense (1.9%), with statistically significant differences in the use of those functions ($\chi 2 = 23.132$, $df = 3$, $p < .000$). Table 2 further shows that when the tweets are independently examined, acclaims (72.6%) also outnumber attacks (23%). The same pattern holds for the retweets, with acclaims (66.4%) more than attacks (21.4%). The defense function was the least used in both tweets and retweets (1.9%).

Table 2
Functions of Messages in Trump's Tweets and Retweets

Function	Content Type		
	Tweet	Retweet	Total
Acclaim	307 (72.6%)	211 (66.4%)	518 (69.9%)
Attack	99 (23%)	68 (21.4%)	167 (22.6%)
Defense	8 (1.9%)	6 (1.9%)	14 (1.9%)
Other	9 (2.1%)	33 (10.4%)	42 (5.7%)
Total	423	318	741

$\chi^2 = 23.132$; $df = 3$; $p < .000$

Research question 3 addressed the principal subjects in President Trump's tweets and retweets. There were statistically significant differences in Trump's focus on those subjects in tweets and retweets ($\chi 2 = 16.786$, $df = 2$, $p < .000$) (See Table 3).

Table 3
Subjects of Discussions in Trump's Tweets and Retweets

Subject	Content Type		
	Tweet	Retweet	Total
Policy	114 (27.0%)	126 (39.6%)	240 (32.4%)
Character	242 (61.9%)	150 (47.2%)	412 (55.6%)
Other	47 (11.1%)	42 (13.2%)	89 (12.0%)
Total	423	318	741

$\chi^2 = 16.786$; $df = 2$; $p < .000$

As Table 3 indicates, Trump discussed character (55.6%) issues more than policy (32.4%) concerns. Character issues (61.9%) dominated policy (27.0%) matters in his tweets. In the retweets, character (47.2%) also outweighed policy (39.6%).

Research question 4 was about the relationship between the functions of Trump's tweets and retweets and his out-degree referencing to people and organizations (mentions and retweets). There were statistically significant differences in the functions of his tweets in relation to people and organizations ($\chi 2 = 245.288$, $df = 33$, $p < .000$) (See Table 4).

Table 4
Trump's References to People and Organizations in Relation Functions the Tweets

Category	Function				
	Acclaim	Attack	Defense	Other	Total
Family	65 (12.5%)	2 (1.2%)	0 (0.0%)	3 (7.1%)	70 (9.4%)
Government	170 (32.8%)	8 (4.8%)	2 (14.3%)	25 (59.5%)	205 (27.7%)
Follower	48 (9.3%)	17 (10.2%)	0 (0.0%)	4 (9.5%)	69 (9.3%)
Conservative Media	108 (20.8%)	53 (31.7%)	4 (28.6%)	6 (3.5%)	171 (23.1%)
Mainstream Media	30 (5.8%)	67 (40.1%)	6 (42.9%)	2 (4.8%)	105 (14.2%)
GOP	27 (5.2%)	5 (3.0%)	0 (0.0%)	1 (2.4)	33 (4.5%)
Dems	1 (0.2%)	2 (1.2%)	0 (0.0%)	0 (0.0%)	3 (0.4%)
Business	8 (1.5%)	2 (1.2%)	0 (0.0%)	0 (0.0%)	10 (1.3%)
Celebrity	16 (3.1%)	2 (1.2%)	0 (0.0%)	0 (0.0%)	18 (2.4%)
International Affairs	33 (6.4%)	2 (1.2%)	0 (0.0%)	0 (0.0%)	35 (4.7%)
Self	8 (1.5%)	6 (3.6%)	0 (0.0%)	0 (0.0%)	14 (1.9%)
Other	4 (0.8%)	1 (0.6%)	2 (14.3%)	1 (2.4%)	8 (1.1%)
Total	518	167	14	42	741

$\chi^2 = 245.288$; $df = 33$; $p < .000$

As table 4 shows, Trump's top three acclaims were directed at government (32.8%) (White House, cabinet secretaries, etc.), his allies in the conservative media (20.8%), and members of his family (12.5%). His top three attacks were associated with mainstream media (40.1%), conservative media (31.7%), and his followers (10.2%). However, it is noteworthy that the apparent "attacks" associated with conservative media and his followers, who are his allies, were in fact his retweets of their attacks against his opponents. His top three defenses were against attacks from the mainstream media (42.9%), conservative media (28.6%) and government (14.3%). However, the "defense" was about retweeting the defense by the conservative media and his associates in government, against attacks on him by his opponents.

Research question 5 focused on the association between Trump's out-degree references and the subjects of tweets and retweets. The differences in the subjects vis-à-vis the out-degree references were not statistically significant ($\chi 2 = 32.060$, $df = 22$, $p = .076$).

Table 5
References of Trump's Twitter Content in Relation to Subject of Tweets

Category	Subject			
	Policy	Character	Other	Total
Family	15 (6.3%)	48 (11.7%)	7 (7.9%)	70 (9.4%)
Government	64 (26.7%)	106 (25.7%)	35 (39.3%)	205 (27.7%)
Follower	26 (10.8%)	35 (8.5%)	8 (9.0%)	69 (9.3%)
Conservative Media	8 (3.3%)	89 (21.6%)	18 (20.2%)	171 (23.1%)
Mainstream Media	64 (26.7%)	58 (14.1%)	10 (11.2%)	105 (14.2%)
GOP	37 (15.4%)	19 (4.6%)	5 (5.65)	33 (4.5%)
Dems	0 (0.0%)	3 (0.7%)	0 (0.0%)	3 (0.4%)
Business	4 (1.7%)	5 (1.2%)	1 (1.1%)	10 (1.3%)
Celebrity	2 (0.8%)	14 (3.4%)	2 (2.2%	18 (2.4%)
International Affairs	8 (3.3%)	25 (6.1%)	2 (2.2%)	35 (4.7%)
Self	9 (3.8%)	5 (1.2%)	0 (0.0%)	14 (1.9%)
Other	2 (0.8%)	5 (1.2%)	1 (1.1%)	8 (1.1%)
Total	240	412	89	741

$\chi^2 = 32.060$; $df = 22$; $p = .076$

Table 5 shows that the top three references in his social network were government (27.7%), conservative media (23.1%), and mainstream media (14.2%). The subjects were dominated by issues related to character (55.6%) more than policy (32.4%).

Research question 6 asked about the functions of President Trump's tweets and retweets in relation to the subjects of his messages and those differences were significant ($\chi 2 = 155.813$, $df = 6$, $p < .000$). Table 6 indicates that there were more acclaims on character issues (77.7%) than on policy (61.3%), but conversely more attacks on policy

(34.6%) than character (18.2%). A greater percentage of his defense was on character (2.7%) than policy (0.8%).

Table 6
Functions of Trump's Tweets in Relation to his Subjects of Discussion

Function	Subject			
	Policy	Character	Other	Total
Acclaim	147 (61.3%)	320 (77.7%)	51 (57.3%)	518 (69.9%)
Attack	83 (34.6%)	75 (18.2%)	9 (10.1%)	167 (22.5%)
Defense	2 (0.8%)	11 (2.7%)	1 (1.1%)	14 (1.9%)
Other	8 (3.3%)	6 (1.5%)	28 (31.5%)	42 (5.7%)
Total	240	412	89	741

$\chi^2 = 155.813$; $df = 6$; $p < .000$

DISCUSSION AND CONCLUSION

Donald Trump has a unique style of Presidential communication and political messaging. Unlike his predecessors, he avidly uses Twitter to announce policy, chastise his perceived opponents, praise and support his allies, promote himself and even dismiss any member of his cabinet or publicly ridicule anyone who may have unwittingly earned his displeasure. In this study the authors examined his use of Twitter, with a focus on determining the manifest functions of his tweets in relation to the structure of his out-degree social network on the platform.

Overall, our analysis primarily locates President Trump at the pivot of an ego network where he, as the main actor, is connected to several actors or followers in a web of links (Everett & Borgatti, 2005). This is evidenced by the fact that he has more than 80 million followers, while he only follows about 46 people. In this type of scenario, principal actors not only dominate the "Twittersphere" social network but are equally prolific in the number of tweets that emanate from them (Castells, 2009; Kumar et al., 2010). President Trump's over 3,200 tweets in our period of study (November 8, 2016 to January 21, 2018) amply demonstrate such dominance and presence.

Perhaps the frequency of President Trump's Twitter messages creates an impression of disorderly tweeting habit. But, our analysis of the out-degree connections in his ego-network suggests the opposite. His messages mostly revolve around government

(28.5%), conservative media (21.7%), liberal media (15%), family members (8.8%), followers (8.5%), GOP members (5%), and international affairs/political figures (4.6%). Three examples in his out-degree network will suffice. On April 19, 2017, he tweeted the following about his government: "Today I signed the Veterans (OUR HEROES) Choice Program Extension & Improvement Act..." Earlier the same month (April 4) he released this tweet that dealt with international affairs: "It was an honor to welcome President Al Sisi of Egypt to the @WhiteHouse as we renew the historic partnership between the U.S. and Egypt." On New Year's Day (2017), he retweeted a family member's (Ivanka) tweet: "RT @IvankaTrump: 2016 has been one of the most eventful and exciting years of my life. I wish you peace, joy, love and laughter. Happy New Year!" In categorizing his out-degree tweets, President Trump paid more attention to tweeting about his government (30.4%) but retweeted more from his allies in the conservative media (27%), led by FoxNews.

Political messaging as well as other forms of messages have intended functions. This accounts for our adoption of the functional theory of political campaign discourse in this study. Our data show that President Trump primarily uses his tweets and retweets to acclaim, cheer, praise and send positive messages (69.9%) than engaging in attacks or vilifying his opponents (22.6%) or for self-defense (1.9%). This tweet of June 9, 2017, exemplifies his acclaim: "Great reporting by @foxandfriends and so many others. Thank you!" Here is an example of an attack in a retweet (August 5, 2017): "RT @RightlyNews: "What's a high priced Clinton attorney doing representing a low level IT staffer for the Democrats?" On defense, he retweeted this (June 30, 2017): "RT @foxandfriends: Jared Kushner didn't suggest Russian communications channel in meeting, source says." This pattern that emphasizes acclaims over attacks and defense supports previous studies which determined that the functional utility of political messages is more about positive messages than attacks or self-defense (Lee & Benoit, 2004).

The subject of Trump's tweets was another area of our inquiry. From a theoretical standpoint, such subjects basically deal with policies (accomplished or planned and general goals) or character (personality/image, leadership and ideals) (Benoit, 1999; Benoit, 2019). Interestingly, President Trump appears to be remarkably enchanted by character and image issues. More than half (55.6%) of the 741 tweets and retweets we analyzed were about character. Policy only accounted for 32.4% of the tweets. This

fascination for image is demonstrated in this retweet of September 17, 2017: "RT @glamourizes: @realDonaldTrump Only true Americans can see that President Trump is making America great. He's the only person who can! Haters are jealous of his success…" and his attacking tweet of June 29, 2017, where he said: "I heard poorly rated @Morning_Joe speaks badly of me (don't watch anymore). Then how come low I.Q. Crazy Mika, along with Psycho Joe, came…." Here is an example of a policy tweet: ".@IvankaTrump will lead the U.S. delegation to India this fall, supporting women's entrepreneurship globally....." (August 10, 2017). We note, however, that on policy issues, he retweets (39.6%) more than he tweets (27%), thus reinforcing our observation that he appears to be more comfortable tweeting about character.

Based on the evidence in our data, we reached the conclusion that President Trump seemingly uses his Twitter account as a personal mouthpiece to talk more positively and glowingly about his and his allies' characters and image than sharing policy issues with the public.

Out-degree referencing vis-à-vis the functions of his messages was another subject in our inquiry. In other words, how do the functions of President Trump's tweets and retweets relate to the organizations and people to whom he directs his messages? Our response and finding is that President Trump has a clear-cut functional approach in his Twitter messaging. He applauds and cheer-leads himself, his friends and allies but lambastes those he thinks of as his foes. He also defends himself and his supporters. The three main recipients of his encomiums are the government (White House, military etc.) (32.8%), friendly conservative media, especially FoxNews (20.8%) and members of his family (12.5%). He said this of himself, wife Melania, the U.S. embassy staff, and the military and their families in France: "Melania and I were thrilled to join the dedicated men and women of the @USEmbassyFrance, members of the U.S. Military and their families." Again, this is about their character, the President's forte in tweets. He also said this about his vice President and friendly senators on policy: ".@VP Mike Pence is working hard on HealthCare and getting our wonderful Republican Senators to do what is right for the people" (July 14, 2017).

The top focus of his usually vitriolic attacks are the mainstream media (40.1%), the conservative media (31.7%) and his followers (10.2%). For instance, he said this about the

mainstream or unfriendly media: “So they caught Fake News CNN cold, but what about NBC, CBS & ABC? What about the failing @nytimes & @washingtonpost? They are all Fake News!” (June, 27, 2017). An explanation is needed at this juncture, given that some of his critical “attacks” were on face value directed at the conservative media and his followers. We had to do some textual analysis to understand this apparent anomaly, if not a contradiction. What we found was that these critical messages were indeed attacks unleashed on his behalf by the friendly conservative media and his followers. He merely retweeted them. Here are two examples: “RT @foxandfriends: Head of the NYPD union slams Mayor de Blasio for skipping vigil for assassinated cop Miosotis Familia” (July 10, 2017); and “RT @realDonaldTrump: The travel ban into the United States should be far larger, tougher and more specific-but stupidly, that would not be politically correct!” (September 17, 2017).

The major defense was against criticisms from the mainstream media (42.9%). An example is this retweet (October 5, 2017): “RT @FoxNews: Geraldo Blasts 'Fake News' Reports About Trump's Visit to Puerto Rico.”

We also investigated how President Trump aligns the subjects of his tweets with the people and organizations or references in his out-degree network. The top three references in this regard are the government (27.7%), conservative media (23.1%) and mainstream media (14.2%). But, digging deeper, we found that on policy matters, which evidently do not constitute the main focus in his tweets and retweets, he references his government and the mainstream media about equally. When the topic is about character, his preference is to mainly reference his government (25.7%), the conservative media (21.6%) and the mainstream media (14.1%). And on defense issues, the government also has the most share in his references (39.3%), followed by the conservative media (20.2%) and the mainstream media (11.2%).

In this retweet example, there is a reference to government and policy, but it is all about his leadership, which is a character trait: “RT @Reince45: Promise kept. @POTUS exits flawed #ParisAccord to seek better deal for U.S. workers & economy. This WH will always put #American industry first” (June 2, 2017). Another example: “.@LouDobbs just stated that "President Trump's successes are unmatched in recent Presidential history" Thank you Lou!” (April 29, 2017). Against the mainstream media he sees as attacking his

government and character, he tweeted this: "The FAKE NEWS media (failing @nytimes, @NBCNews, @ABC, @CBS, @CNN) is not my enemy, it is the enemy of the American People!" (February 17, 2017).

We postulate that among several, possible interpretations of this referencing pattern in the subject of his tweets and retweets, President Trump might appear to be concerned about the public perception of his government. He makes most of his tweets about his government, praising the conservative media that cheer his administration and excoriating the mainstream media he feels frame his government negatively. As our data suggest, he generally extols his character as well as that of members of his government. All these suggest an undercurrent of probable self-admission that his government needs a better public image than it has.

In sum, although this discussion has already established from our dataset that the functions of President Trump's tweets are primarily to acclaim or applaud more than they are used to attack or defend on the topics of policy and character, we further examined the functions or objectives of those messages in the tweets and retweets as independent variables. Our analysis show that he often acclaimed more in the tweets (72.6%) than in the retweets (66.4%) and also attacked his opponent more in the tweets (23%) than his retweets (21.4%), but defended evenly in the tweets (1.9%) and retweets (1.9%). This pattern again reinforces prior observations in this study that the President essentially uses his tweets to praise himself, his allies and family, and revile his opponents.

Research Limitations and Suggestions for Future Research

While we essentially see this study as identifying and opening up a fresh perspective on Presidential political communication, it had three main limitations. First, this study only analyzed the functions of 741 of President Trump's Twitter messages within a specified period in the out-degree ties of his ego-network. Future research can expand the sample size to a bigger portion of the over 52,000 tweets from President Trump. Second, this study only focused on President Trump's Twitter networking during the first year of presidency. We recommend a longitudinal study of President Trump's ego-network and the functions and subjects of his tweets and retweets over time. Third, this study analyzed Trump's Twittersphere with traditional functions (acclaim, defense, and attack) and subjects (policy and character) of the Functional Theory of Political Campaign

Discourse (Benoit, 1999). Future research can go beyond the traditional categories of functions and subjects by examining the tone and use of power dominance in Trump's tweets. In addition, we recommend an analysis of the people and organizations President Trump follows on Twitter and the structure of their network with him.

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