The Nature of Politicians' Tweets During a Disaster

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Social media networks, photo sharing applications and microblogs have become valuable and beloved communication tools over the last ten years. A distinctive characteristic of social networking sites is the prominence of user presence and user-generated content. Although social media users generally communicate about their own personal lives or to share information and knowledge about specific events, news, and so on, social media use has gradually permeated the communications agenda of non-media (politician) and media (news) subdivisions.

Government officials use social media for a variety of purposes, including campaigning, advocating policies and fundraising. Public officials use of social media has institutional benefits as well. Social media use increases confidence between citizens and government by making legislative process more accessible (Mickoleit, 2014). In addition, social media has become valuable tool for officials to communicate with the public in a disaster. Previous studies suggest social media networks offer the most efficient method of the crisis principle of "telling it all and telling it now and telling the truth", along with sharing information widely and quickly (Graham, Avery & Park, 2015).

Social media has changed communication during a crisis because it allows for easily accessible minute to minute updates. Disaster relief organizations and politicians utilize "the Internet to relay large volumes of information more effectively" than other methods (Paul, 2001). Social media allows users to get information during a disaster and to communicate with others also experiencing it. Everyone has access to social media and can be constantly informed of disaster zones, shelters and other useful information during a crisis.

This study examines the way that governmental actors use social media networks during times of crisis to help organize disaster relief efforts, communicate with key officials and the public, raise their political profile, or achieve other aims.

Tweets from various Florida politicians during a two-week span after Hurricane Irma hit were chosen as the unit of analysis for this study. Individual tweets were manually categorized and programmed into SPSS. Each tweet was classified as: action-oriented, partisan, policy, credit-claiming, informational, constituent service, expression, reference institution and other. A single tweet could identify as multiple types. Then the type of tweet was measured against other variables such as type of politician, age and gender of politician, party, and number of likes and retweets.

The majority of tweets by Floridian politicians in this two week period were informational; they gave constituents practical yet vital information such as updates on road closures, shelter locations, and so on. The second most popular type of tweet was expression – either positive (praying for victims) or negative (criticizing the other party members of not doing their job). Tweets categorized as informational and expression also received the most interaction on Twitter, measured by retweets and likes. Republicans tweeted more informational and credit-claiming tweets than their Democratic counterparts. Democrats tweeted more action-oriented information and mentioned more policies than Republicans. The governor tweeted the most information, likely because of his large following.

Politicians and Social Media

During the last few years, both federal and state government officials and offices have relied heavily on social media applications to communicate with the public and the news media. All federal agencies and most individual politicians use social media sites to communicate information. Local politicians can have a broad range of followers; the mayor of Miami Beach who was affected by Hurricane Irma has over 12,000 followers. The spike in government agencies and individual politicians using social media can be attributed to President Obama's "Open Government Initiative" (Obama, 2009). The Obama Administration distinctly defined information as a public resource that must be shared with citizens.

Social media serves some important governmental purposes in a democracy. It provides a cheap, fast and effective way of sharing information with the public and the press, allowing more transparency and access to government actions. It presents more direct access to the public, not just mediated by the press and expanded number of people who have access to information. It facilitates collaboration of citizens and public comment. All federal agencies utilize social media accounts as a way to demonstrate transparency and increase the public's trust in government. Politicians' use of social media has changed the model of representation as it allows for up-to-the-minute communication between politicians and constituents. "Social media has introduced the concept of 'iterative' representation and real time, constant accountability of Members to constituents" (Straus, Williams, Shogan & Glassman, 2016). It subjects politicians to consistent accountability. Some politicians employ social media to conduct virtual "town hall" meetings that scholars can quickly examine, gauge and evaluate. The development and expansion of democratic representation and decision-making relies on social media since yields the most abundant and encouraging data. "Iterative representation" demonstrates a new type of representation within government wherein criticisms and praises are constantly observed, assessed and analyzed. Politicians are intermediaries in the government that bring news and other useful information to the public via social media networks. As a result, government usage of social media provides the opportunity to assimilate information and opinions from civilians, increases transparency by sharing information and allows for the direct collaboration of citizens and government.

Individual politicians can bypass the media by using their own social media outlets to provide the public with messages directly from themselves (Hong and Kim 2016). "As of January 18, 2013, all 100 U.S. Senators had a Twitter account" (Sharp, 2013). Political scientist David Mayhew stated that the primary goal of legislators of re-election and all their communications are categorized by: advertising, credit-claiming and position taking. (Mayhew, 1974). Advertising occurs when a Congressman tries to build favorable name recognition within the district. With social media, legislators' names and opinions can be recognized and read worldwide, expanding their chance of recognition. Credit claiming refers to actions which promote the belief that the member is the person responsible for desirable results. Social media lets elected officials post about the good work they are doing, governmentally-related or not, to gain good press and credit amongst constituents. Position taking is a public announcement of a Congressman's stance on a particular issue. Again, within social media, politicians can share bills they contributed to and boast about laws they voted for. There are differing mobilization strategies of politicians' use of social media, and politicians can use this platform to mobilize and engage people, make a statement or take a position on a specific issue (Zavattaro, et al. 2015). Arguably, social media has made it easier than ever for politicians to engage in all three aspects of re-election activity identified by Mayhew. Politicians can also use social media to raise their platform and take stances on issues while

encouraging voters to get active and participate in the political process. Young people from a broad range of existing political and civic groups use social media for sharing information, mobilization, and increasingly, to redefine political action and political spaces. (Vromen, Xenos & Loader, 2015). Online social networks are valuable for political participation because they increase the opportunity of connecting politically with others.

A downside of relying on social media for information is the potential for hacking, trolls and the spread of "fake news." Many trending topics on social media sites have sprung from false stories, and people share them as the truth. Another risk of government adopting and using public social media networks is unwanted attention to certain operations (Mergel, 2016). Each interaction on social media administered by a representative of government must be consistent, trustworthy and void of flaws. Information being viewed and spread on social networking sites is highly polarized. Further, social media can give a wider audience to extreme messages. Politicians with extreme ideological positions and therefore more extreme messages than their moderate peers have larger online readership and followers on Twitter (Hong, Sounman & Kim, 2016). These extreme messages are amplified through social media's "echo chamber" wherein people are exposed to information, ideas or beliefs by communication and repetition inside a distinct system.

Disasters and Social Media

The biggest difficulty in assessing disasters is communication. Information translated to people regarding natural disasters differs from man-made disasters such as industrial accidents and chemical explosions (Scanlon, 1998). People have used traditional forms of mass media to distribute information about natural disasters until the recent emergence of social networking sites. The Internet has emerged as a new field of disaster information and investigation (Paul, 2001). As recent media and communication technology becomes more popular and commonplace within society, disaster administration and operation transforms. In recent years, disaster communication has deviated from a one-way to two-way exchange of ideas, particularly with officials and agencies (Paul, 2001). Online users can respond directly to disaster-related messages posted by organizations and government officials. The internet provides people with immediate and constant information and updates concerning a disaster.

Social media's arrival has increased the use of online media in disaster circumstances. Paul (2001) noted the limited amount of interactivity of sixty-four disaster relief home pages. Social media has expanded the ability of government officials, the media and the public to take advantage of reciprocative information. Vieweg, et. Al, note that the use of microblogging through sites such as Twitter, has increased dramatically in disaster communication.

Social media allows people another source of communication during disasters. Initially, social media sites were not seen as official sources of news and accurate information but this has changed thanks to Twitter's verification process. Twitter's Help Center states that "the blue verified badge on Twitter lets people know that an account of public interest is authentic", so people can confirm that information they are receiving from news and government sources is trustworthy (Twitter, 2017). During a crisis, communicators of all sorts are increasingly using social media to distribute pertinent and timely messages.

The use of the Internet and social media by the news media has become a crucial necessity of disaster coverage, mitigation and relief. Paul (2001) states an example where the direct use of the Internet by an online newspaper helped save lives during a disaster. During the floods in Grand Forks, North Dakota of 1997, online bulletin boards, e-mail and video clips on the local

newspaper's website helped people to share information and contact friends and family members. More generally, social media has been efficient and useful in notifying its users and followers with up-to-the-minute information on a developing crisis (Vieweg, Hughes, Starbird, & Palen, 2010). Following the recent disastrous hurricanes that hit Texas and Florida, major news organizations began engaging social media to quickly distribute news items and information (Silverman, 2017). Several major news networks set up pages on their websites with minute-to-minute updates of information.

An escalation in network news coverage of natural disasters, resulted in more persistent and larger donations from private citizens (Simon, 1997). Studies have shown that news media not only enhanced awareness of the disaster, but also impacted people's motive to donate (Oosterhof, Heuvelman, & Peters, 2009). News platforms often included links with their messages on social media to donate to victims of Hurricanes Harvey and Irma during the critical time of initial destruction. Donations were also influenced by the kind of news that gained majority of the attention. A study by Brown and Minty (2008) demonstrated that donations for victims of the Rwanda Genocide in 1994 began to decrease as the media coverage started to focus more on the O. J. Simpson Trial. Among the general public of the United States, news coverage of disasters commonly garners more attention than any other issue (Robinson, 2007). The 2017 hurricanes dominated the news cycle for a few weeks after each initial impact.

Mass-mediated disaster communication generally consists of disaster warning messages and of mass media news coverage of disasters. Disaster warnings usually originate from official government agencies such as the US Federal Emergency Management Agency (FEMA) and are disseminated through mass broadcast channels (such as radio and television). FEMA lists three goals of the government during a crisis as providing service, achieving outcomes and stimulating participation (FEMA, 2017). Providing service includes emergency medical services and organizing plans for people affected by disasters. Achieving outcomes includes "designing and developing mitigation measures; developing and executing emergency management plans; and coordinating or supporting the restoration of critical public utilities and services" (FEMA, 2017). Stimulating participation involves government's direct call for aid from private citizens and organizations or institutions. Public participation in social media is the bridge between the means and the end when the emergency management community and the public work together.

Traditionally, during times of crisis citizens rely on information provided by official public information officers (PIO) of several government agencies. "The primary responsibility of a PIO is to communicate correct, up-to-date information concerning the status of emergency incidents to the media, members of the public, and other directly or indirectly affected stakeholders" (Hughes & Palen, 2012). However, with the incensement of popularity and reliability on SNS to gain information, these officials had to shift their platform to provide relevant messages to people suffering in a crisis such as a hurricane. PIOs now have less time to construct statements to be released into the public, as social media functions on its timeliness.

FEMA outlines five levels of successful crisis communication via social media: monitor, command/control, coordinate, cooperate and collaborate. During the monitoring stage, emergency managers view messages streaming through social media, focusing on one-way communication from the public. This allows emergency managers to see how the public communicate during a disaster. The command/control stage "involves one-way communication to the public intended to inform, convince, compel, or instruct" (FEMA, 2017). This stage aims to disseminate timely and accurate information to the public. Coordination involves starting a conversation with other online users in order for the public and emergency managers to have a shared understanding of the

situation. This can include emergency managers correcting a rumor being spread on social media. The cooperation stage requires more direct communication between individuals or groups and emergency managers, allowing for the sharing of resources, such as sharing videos from people directly affected. The final stage of collaboration occurs when the public and government have a shared understanding and knowledge of the situation and prompts action.

In some cases, blogs have become more dependable and reliable sources of information than conventional forms of media due to bloggers' accessibility to timely information (Johnson & Kaye, 2004). Distressed and stranded people affected by 2017 Hurricane Harvey in Texas directly were also using social media outlets to get other people to help them in their situations. The author cites one incidence where a user on the neighborhood app NextDoor wrote that they were stranded on the roof along with their address when one other user responded that they were on their way with a canoe. Emergency management consultant Rob Dudgeon stated, "this is a situation where technology and accepted norms of communication are outpacing government's ability to manage" regarding masses of people using social media to gain the attention of unofficial volunteers to help in their time of need (Silverman, 2017). While news sources were constantly disseminating information about the devastating effects of both hurricanes, online social media users came to action to assist those directly affected in the areas.

During disasters, individual politicians engage social media in an attempt to have better control and improve management of a crisis. In an analysis of local government crisis communication, Graham, Avery and Park (2015) found both the extent of social media use and the number of social media tools used were positively related to the officials' crisis management. "The level of social media use was positively associated with the officials' ability to control the crisis" (Graham, Avery & Park, 2015). Social media offers the most efficient method of communicating correct information in a timely manner. Crises such as the 2017 hurricanes demonstrated immediate need for dissemination of accurate information for victims of the natural disaster.

Although published research about government and politicians' use of social media exists, none focus specifically on what messages they relay to constituents during a disaster. Research about social media during a crisis tends to focus on disaster organizations and their interactions with people experiencing it. This research study attempts to bridge the gap and focus specifically on politicians and their use of Twitter during a natural disaster, using 2017 Hurricane Irma and Florida politicians as its sample. How are politicians using Twitter during a disaster or crisis?

Research Design

This study attempts to fill the gap in research by coding individual tweets by Senators, Congressmen and local officials such as mayors and council members. Nature of tweet is considered based on Mayhew's categories of communication: advertising, credit-claiming and position taking. Other variables include type of elected official, political party, gender, age and number of retweets and likes.

In this study, content analysis is applied to categorize tweet information types to determine major uses of Twitter during disasters by different types of politicians. I hypothesize that the lower status a politician is (local), the more action-oriented the tweets will be. The higher ranking a politician is, the more likely he/she is to tweet expressions and partisan statements. A content analysis will be performed on the Twitter tweets of the governor, 2 Florida Senators, its 27

members of the House of Representatives, 21 State Legislatures and 20 local politicians during the first two weeks following Hurricane Irma. September 10, 2017, the day the hurricane struck Florida, through September 24, 2017, was the selected timeframe because the hurricane received maximum coverage during these dates.

The actual text of the tweet will be entered so that future researchers are able to use this database for analytical purposes. The tweets will be organized by each politician's name. Information about every politician such as gender, race and election year will be entered. The unit of analysis will be the number of retweets, likes and replies each tweet receives. Each tweet will be coded by what type of information each individual was disseminating based on Mayhew's model. The dependent variables that will be coded with each tweet are action-oriented, partisan statement, credit-claiming, policy action, constituent service, expression of criticism, expression of support, reference to institution and other. These eight categories adequately measure and describe motivation for re-election, and will be able to sufficiently explain the nature of politicians' tweets during a disaster. In this case, the disaster is a hurricane that hit the coast of Florida in September 2017.

I will use Twitter's advanced search feature to go through and manually enter each tweet text from all the politicians during the selected timeframe. Then, both politician type and tweet information types are coded to generate comparisons among type of politician, gender, race, and election year. It will then be determined how many tweets of each specific type exist, and what type of politician tweets those more than others. The validity and reliability of this method would be improved if more than one coder was working on this exploration. Some tweets may fit into multiple categories, and will be coded as such.

To summarize, I believe that the local representatives will tweet more informational and action-oriented tweets than those in a position with more constituents (such as Senator). I do not think there will be much difference in nature of tweet between gender. I hypothesize that Republicans will tweet more credit-claiming and partisan tweets while Democrats will tweet more about policy and expression. Informational tweets will likely receive the most interaction in the forms of retweets and likes because people want everyone to be properly informed.

Results

Overall, 1,058 tweets were categorized from a total of thirty-seven individual legislators' accounts during the two-week time period of September 10 to September 24, 2017. Although the original intention was to measure the tweets from twenty mayors in areas impacted by Hurricane Irma, many did not have their own personal Twitter accounts or did not have any tweets written during the two-week period. Rather than have their own personal accounts, some cities had Twitter accounts but these were not coded or analyzed. Each tweet was individually coded with the date it was posted, name of the legislator, gender of legislator, race of legislator, race of legislator, election year, political party of legislator, number of retweets, number of likes, number of replies, and then assigned a tweet type based on eight categories. The eight categories of tweets were action-oriented, partisan, policy, credit-claiming, informational, constituent service, expression (of support or criticism, which were independently coded), reference of institution and other. The other category consisted of tweets that did not fit into any category such as bible verses, birthday wishes, and so on.

Table 1 shows the quantitative features of tweets. The most popular kind of tweet was informational, with 29.1% of all tweets coded fitting into this category. This result was expected,

as people accessed Twitter in order to gain information right after the hurricane hit. The second most popular tweet type was expression at 18.6%. The third most popular tweet type was credit claiming, which resulted in 14.8%. The least popular type of tweet was partisan statements at 2.1%, which was also expected as partisanship was not as important to discuss during this time period. However, an interesting finding within partisanship is that female legislators tweeted more partisan statements than males. This is contradictory to previous research which suggests that males are more combative and aggressive, insinuating more partisan statements coming from them.

Table 1: Overall Volume of Tweet Type

		Percent
Tweet Type	Action Oriented	6.9%
	Partisan Statement	2.1%
	Policy	7.8%
	Credit Claiming	14.8%
	Informational	29.1%
	Constituent Service	4.0%
	Expression	18.6%
	Reference Institution	10.6%
	Other	6.1%
Total		100.0%

Table 2: Tweet Type Gender Comparison

		Female	Male
Tweet Type	Action Oriented	15.3%	5.2%
	Partisan Statement	8.0%	0.9%
	Policy	15.3%	6.2%
	Credit Claiming	9.1%	16.0%
	Informational	17.0%	31.5%
	Constituent Service	4.0%	4.0%
	Expression	22.7%	17.8%
	Reference Institution	1.7%	12.4%
	Other	6.8%	6.0%
Total		100.0%	100.0%

In conjunction with the prevalence of informational tweets, they also dominated the number of retweets; 40% of all tweets with retweets from 1001 and over were informational. Additionally, another 40% of all tweets with retweets over 10001 were expression coded tweets, with many of those offering sympathy for victims and expressing support for the volunteers, institutions, national and international support during the time of Hurricane Irma.

Republicans and Democrats had different frequencies of tweet types. As seen in Table 4, while the two parties had similar rates of tweeting informational things, Republicans were more likely

to reference institutions while Democrats were more likely to discuss policy. The policy feature can be explained by the DACA debates in Congress that were occurring within the period of time discussed, as Democrats wanted to disseminate information criticizing the proposed bill.

Table 3: Number of Retweets Based on Tweet Type

		0-50	51-100	101-500	501-1000	1001-5000	Total
Tweet Type	Action Oriented	7.6%	3.7%	5.5%	17.6%	0.0%	6.9%
	Partisan Statement	2.5%	0.7%	1.4%	0.0%	0.0%	2.1%
	Policy	8.5%	6.6%	6.2%	0.0%	0.0%	7.8%
	Credit Claiming	14.5%	18.4%	15.1%	5.9%	0.0%	14.8%
	Informational	27.6%	33.1%	32.2%	35.3%	40.0%	29.1%
	Constituent Service	3.8%	3.7%	4.8%	5.9%	0.0%	4.0%
	Expression	20.0%	8.1%	19.9%	23.5%	40.0%	18.6%
	Reference Institution	9.5%	18.4%	10.3%	0.0%	0.0%	10.6%
	Other	6.0%	7.4%	4.8%	11.8%	20.0%	6.1%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 4: Tweet Type Party Comparison

		Democrat	Republican
Tweet Type	Action Oriented	11.0%	5.2%
	Partisan Statement	6.8%	0.1%
	Policy	18.2%	3.5%
	Credit Claiming	11.4%	16.3%
	Informational	25.3%	30.7%
	Constituent Service	1.6%	4.9%
	Expression	15.6%	19.9%
	Reference Institution	3.6%	13.5%
	Other	6.5%	6.0%
Total		100.0%	100.0%

Table 5: Tweet Type Legislator Comparison

		Governor	Senator	State Legislator	US Rep	Mayor	Total
Tweet Type	Action Oriented	1.9%	2.2%	0.0%	9.1%	11.5%	6.9%
	Partisan Statement	0.0%	0.0%	0.0%	3.4%	1.8%	2.1%
	Policy	1.5%	3.3%	0.0%	10.6%	11.5%	7.8%
	Credit Claiming	12.0%	30.0%	0.0%	13.9%	15.0%	14.8%
	Informational	39.0%	26.7%	40.0%	26.2%	22.1%	29.1%
	Constituent Service	5.6%	0.0%	0.0%	3.3%	7.1%	4.0%
	Expression	7.5%	21.1%	20.0%	21.6%	27.4%	18.6%
	Reference Institution	27.7%	6.7%	0.0%	5.3%	0.9%	10.6%
	Other	4.9%	10.0%	40.0%	6.5%	2.7%	6.1%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Although I hypothesized that the higher up a legislator was (governor versus mayor), the less informational and more expressive the tweets would be, that was not correct. In fact, 39% of Governor Rick Scott's tweets were informational and provided specific instruction for people of

certain areas. As seen in Table 5, the only type of legislator whose tweets were not mostly informational were senators, whose credit claiming tweets surpassed informational by almost 4%.

Discussion

Overall, this research shows that the dominant type of tweet by politicians during a disaster is informational – messages that people need to adhere to are easily accessible on the Internet. The governor tweeted a lot of area-specific and timely informational updates during this time, possibly because of his large following. Surprisingly, female politicians tweeted more action-oriented and policy centered tweets. Male politicians relayed more information (31.5%) over their female counterparts (17%). Not only were informational tweets the most popular tweet by politicians, they were also the ones with the most engagement by other users. Although expressional and informational tweets tied at percentage (40%) for 1001-5000+ retweets, informational tweets had the most engagement across all retweet categories. Democrats and Republicans did not vary much in type of tweet; their main difference concerned partisan statements where Democrats tweeted 6.8% versus Republicans' .01%.

This research demonstrates how politicians of different ranking use Twitter during a disaster. It showed that Twitter is a powerful and useful tool for relaying information. Politicians mainly used it to share various kinds of information during the two weeks after the initial hit of the hurricane. It proved that during a crisis such as this, politicians all had the common goal of keeping their constituents safe; partisan statements (2.1%) were the least popular type of tweet during this time period. This research contributes to further understanding of politicians and social media.

A limitation of this study was that the dataset was limited to a single topic, Hurricane Irma, and only messages from Florida legislators' personal accounts were analyzed. Another limitation was that some tweets could be categorized into several different classifications, and it was at the discretion of my opinion of which type dominated. Although I could code a single tweet into several categories, I decided that each tweet be allotted up to three separate classifications. Since I was the only one entering the data within the dataset, it is possible I incorrectly categorized or completely missed some tweets due to the volume presented. Further studies should incorporate multiple coders to ensure the data is categorized in a reliable way.

This study aimed to understand the types of tweets politicians tweeted on Twitter directly after a natural disaster occurred. Legislators used several types of messages to their followers. The most prevalent type of tweet was informational, which was expected as people affected by the disaster went to social networks to find out information about what to do from their legislators. Based on the observed research, future research should include a way of measuring tweet fitting within more than one category. It also should include more local politicians, even if they may be from the city's account rather than the legislator themselves. Overall, some findings were expected while others were surprising.

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