TWITTER IN POLITICS: THE CONTENT AND CONVENTIONS BEHIND CANDIDATES TWEETS

By

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Abstract

This study was designed to determine how political candidates use Twitter. The tweet analysis considered both content of the tweets and the use of technical Twitter functions. A total of 1347 tweets were analyzed from 10 candidates participating in Kentucky elections. Using a list of rules adapted from other studies, tweets were categorized. The results show that certain content categories and technical conventions are embraced by some candidates while others exclude them. This suggests that Twitter use may be influenced by the biographical history of the candidate, the candidate's familiarity with Twitter, and the circumstances of the campaign.

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Statement of Purpose

The purpose of this study was to analyze the elements of political candidates' social media use within the context of Twitter by categorizing tweets based on content and the use of technical conventions. This helped clarify characteristic differences in Twitter use between candidates in Midwest elections. Candidates' tweets from a U.S. Senate race, a U.S. House race, a couple Kentucky Senate races, and a few Kentucky House races were all analyzed to determine how many tweets mentioned certain campaign-related categories and used certain technical conventions. The results of this study helped highlight the idea that different characteristics can impact how candidates tweet.

Twitter in Politics: The Content and Conventions Behind Candidates' Tweets

Introduction

Context

Each day, individuals from all over the world go online and log into Twitter, gaining access to content from different individuals with unique backgrounds; all the user has to do is choose to follow another. This relatively new communication medium provides an interesting opportunity for politicians and candidates. Not only can they reach a wide audience and expand word-of-mouth campaigning, but they can connect with their constituents and voters with more personal messages. Furthermore, this can be done with a minimal cost. While campaign advertising on media such as television can be a financial drain, using a Twitter account simply requires a device and Internet access.

Justification of study.

After the emergence of television, the use of political ads has been a source of numerous studies. However, research on the use of Twitter in the political realm has been slow. Studies considering candidates' use of Twitter, such as the ones cited in this study, usually consider the amount of tweets, how long the candidate has had a profile, and the number of followers, but few studies seek to determine what messages the candidates send to those followers.

Considering this aspect of candidates using Twitter is important if researchers are to determine the potential influence and impact of a campaign on Twitter. President Barack Obama received attention for his online campaign strategy in 2008 and 2012 with some crediting his election to the success of that initiative. If such influence can stem

from applications on the Internet such as Twitter, understanding how candidates tweet is essential to determining what makes an online campaign successful.

Statement of problem.

This study set out to find further results regarding this innovative campaign strategy. The study was designed to address the following question: What characterizes the tweets from candidates for political office?

Review of Literature

Numerous studies have explored the realms of politics, analyzing the content and effects of media coverage and advertisements. However, a whole new area has emerged as Internet advertising and social media campaigns have increased. Drew and Weaver (2006) recognized the significance of the Internet and decided to incorporate it into their study on the importance of media in the 2004 presidential election. Expanding upon their previous research, the authors sought to measure attention and exposure to media to find correlations between these and knowledge, interest, and intention to vote. They found that those who searched for and paid attention to campaign information on the Internet were more knowledgeable about the candidates' issue positions. This combination of Internet exposure and attention also was correlated with campaign interest and served as a predictor of knowledge. Drew and Weaver also found that this study was the first of theirs, since 1988, to show a "significant direct relationship of exposure and attention to Internet campaign information with knowledge of candidate issue positions or interest in the campaign" (p. 33). With Twitter having been introduced in 2006, one wonders whether this added to an increased opportunity for potential voters to connect to politics.

Some studies such as one conducted by Groshek and Al-Rawi (2013) have analyzed the content of politicians' Facebook pages, media that could connect to voters, but have only considered tweets with a specific political hashtag from various users. While Facebook is still a popular social networking site, politicians can use Twitter to reach more potential voters. Vergeer, Hermans, and Sams (2011) sought to determine this possible significance of Twitter in connecting voters with politicians. Within their multifaceted study, the researchers sought to determine whether disadvantaged candidates, such as those running on a third party ticket or those in a party that lost seats in the previous election, were more active on Twitter, connecting with the idea that exposure to information can assist with knowledge of candidates. They also set out to determine whether the frequency of tweets or amount of followers corresponded to votes, relating to the idea that attention to this information impacts voters. Their results mostly demonstrated that the more disadvantaged or struggling candidates were more active and had larger networks. However, more followers did not significantly correspond to more votes. The authors suggest that those most active on Twitter are those who have lost seats or need to garner more support. Therefore, Twitter is an effective tool for directly connecting to voters in order to establish recognition and build a base for a campaign.

Similar to this article and the authors' further studies, many researchers focus on political Twitter use in regards to voters' connection to the candidates. Therefore, the studies incorporate voters' impressions and candidates' activity and network size in relation to votes. However, as Drew and Weaver (2006) mention, "communication measures such as frequency of interpersonal discussion of elections and exposure to

differing viewpoints might help predict knowledge…and interest in a campaign" (p. 38). Twitter's personalized feel and ability to easily reach out to others may play a role in knowledge and interest during campaigns, but this may be dependent on the way candidates use Twitter and communicate with constituents and voters. This concept shows that determining the ways in which candidates tweet is important.

To understand how candidates may be using Twitter, one must understand what users look for and communicate when logging on to Twitter, since a candidate must connect with voters. In a study considering medical tweets, Sullivan et al. (2011) sought to determine what users are seeking or intending to communicate when they tweet about concussions, a condition resulting from head trauma. The authors found that users predominantly tweet about concussions by sharing news followed by personal information or situations. They suggest that Twitter has the potential to be an influential broadcast medium. This conclusion as well as their solid content coding categories can be applied to the political realm. Their categories, including personal information, news, and advertising, can be connected to categories used in another study.

Golbeck, Grimes, and Rogers (2010) studied everyday Twitter use by U.S. Congress members, focusing on the content they communicate to the public. They found that most tweets were informative with 72 percent including links. These types of tweets were followed by tweets that discussed the person's unofficial activities and location. The authors studied Congress' Twitter use when adoption was in its early stages. Therefore, they speculate that Twitter is a medium for sharing known information and promoting positions, ideas, and events that also allows opportunities for communication innovation

(Golbeck, Grimes, & Rogers, 2010, p. 1610). Similarly, when Glassman, Straus, and Shogan (2011) analyzed tweets from U.S. Congress members, they found that most tweets concerned policy, a category included in informational tweets by Golbeck, Grimes, and Rogers. However, the types of tweets politicians use may vary depending on whether they are campaigning or currently in office. For example, Golbeck, Grimes, and Rogers found that only 2.9 percent of tweets requested action and only 7 tweets mentioned fundraising. If a politician is campaigning, these types of tweets would be expected more frequently. Therefore, it is necessary to differentiate between campaign tweeting and tweeting while in office.

While the tweets analyzed in those studies concerned politicians in office, Evans, Cordova, and Sipole (2014) analyzed tweets from those campaigning for the U.S. House of Representatives. They coded tweets into eight categories, finding that factors such as incumbency, party affiliation, and gender influence tweet content. Tweets were more often placed in the personal category with campaign tweets coming in second. Campaign tweets were considered to be those linking to campaign videos and referencing speeches and events. The authors assert that their analysis shows most candidates used Twitter to campaign. However, their other findings differ from a study analyzing how presidential candidates use Twitter, suggesting that Twitter use may vary depending on the level of office sought.

Conway, Kenski, and Wang (2013) studied the content of tweets and activity levels during the 2012 presidential primary elections. They adapted the content categories used by Golbeck, Grimes, and Rogers to campaign-related tweets. They found that many

tweets utilized links, hashtags, and the convention of mentioning other users. Most tweets fell into the elections issues category, followed by those tweets referencing campaign support. This shows that there is a difference in Twitter use during an election versus while in office. The authors suggest that politicians could use Twitter to draw attention to their candidacy and attract news media; however, the researchers believe that politicians may not be at this point, choosing to follow instead of lead (Conway, Kenski, & Wang, 2013, p. 1607). These results are similar to those obtained in a study by Adams and McCorkindale (2013). However, their study was conducted early in the campaign, focusing on the primaries as well. This leaves room for more analysis in Twitter use during the months leading up to the general election, like that of Evans, Cordova, and Sipole.

Many studies have been conducted to analyze the connection between the media and politics. Recently, as Twitter has emerged as a solid medium, research has expanded into this area, mainly focusing on network size, frequency of tweets, and impact on voters. Few studies have considered the content of tweets; however, this area may strongly influence voters. As Adams and McCorkindale (2013) state, Twitter can help individuals, such as candidates for political office, “engage and build relationships” with potential voters (p. 357). President Obama, one considered to have run a successful social media campaign, currently has 72.7 million followers. Ted Cruz, Donald Trump, Hillary Clinton, and Bernie Sanders, candidates for the 2016 presidential election have one million, 7.5 million, 5.9 million, and 1.9 million followers respectively. This provides these political candidates with the ability to transmit a message directly to numerous

individuals with minimal cost. Therefore, it is important to explore the realm of political content in candidates' tweets.

Statement of Research Questions

After a review of previous studies and their results, the researcher sought answers to the following research questions:

RQ_1: Do candidates use Twitter primarily to communicate issues, share campaign media, to promote campaign events, or to call followers to act?

RQ_2: Do candidates use Twitter's structure to post personal tweets or interact with followers?

RQ_3: Are most campaign-related tweets native to the candidate and his/her campaign or retweets/modified tweets?

RQ_4: How often do candidates use technical conventions such as @ and # on Twitter? RQ_5: How often do candidates include links, photos, graphics, audio, or video?

RQ_6: What is the relationship between:

RQ_{6a}: candidate's age and the number of tweets sent?

RQ_{6b}: candidate's gender and the number of tweets sent?

RQ_{6c}: candidate's party affiliation and the number of tweets sent?

RQ_{6d}: candidate's incumbency and the number of tweets sent?

RQ_{6e}: level of office sought and the number of tweets sent?

Method

Tweets posted from September 1 to November 4, 2014, of 10 candidates running in the state of Kentucky were included in this study for a total of 1347 tweets. Races were selected by considering the margin of victory as well as whether the candidates on either side had a Twitter account. Official Twitter accounts for those already in office were excluded. Candidates from the U.S. Senate, one U.S. House district, two Kentucky Senate, and three Kentucky House races were considered. All candidates in the U.S. Congress races had Twitter accounts during the 2014 campaign. One candidate in the considered Kentucky Senate races did not have Twitter accounts during the campaign while three candidates in the Kentucky House races did not have accounts. Three of the candidates were female, and two were of minorities. Detailed biographical information on the candidates in the selected races can be found in Appendix A.

Coding Categories

Using adaptations of content categories developed by Conway, Kenski, and Wang (2013) and Evans, Cordova, and Sipole (2014), analyzed tweets were sorted into the following categories. The complete coding rules can be viewed in Appendix B.

Content and Keyword Categories.

Campaign Issue: Any reference to important election issues such as the economy, health care, or foreign affairs; does not include references to different groups of people.

Campaign-Related Media: Any reference to campaign-related media including advertisements, endorsements, news stories, and public opinion polls.

Campaign Event: Any reference to a campaign event including rallies, speeches, or debates; excludes simple references to crowds or presence in a location.

Call to Act: Any reference to support given or needed including donations, volunteers, votes, or retweets.

Office-Related: Any reference to events, votes, or other items native to the office.

User Interaction: Any reference to events, votes, or other items native to the office.

Personal: Tweets "like those one might see on a Facebook page" including family photos, comments about heading to church services or family events, references to national holidays or memorials, spiritual or inspirational messages, quotes or other matters not political in nature.

Obama: Any mention of Obama, Barack, the president, @POTUS, or @BarackObama.

Democrats: Any reference to Democrats, the Democratic Party, or liberals.

Republicans: Any reference to Republicans, the Republican Party, or conservatives.

Opponent: Any reference to the candidate's opponent.

Other: Any reference to another political figure.

Technical Categories.

Photo: The inclusion of a still photograph.

Audio: The inclusion of a stand-alone audio clip; excludes audio that also accompanies a video clip.

Video: The inclusion of a video clip including or not including audio.

Graphic: The inclusion of a static graphic image, including a photo altered to have text, objects, or other images.

Link: The inclusion of a live link to a web site, not including the link that references the tweet itself.

Hashtag: The inclusion of a hashtag used as a Twitter content organizer.

At: A reference to a specific Twitter user using the @ convention

Retweet: Indicated by RT at the beginning of the tweet.

Modified Tweet: Indicated by "@....." in tweet, usually preceded by text and MT or RT

Procedures

Tweets were downloaded using a Python script with a tweepy plug-in. According to Python's website, the program is "a programming language that lets you work quickly and integrate systems more effectively" (Python). By using the language to type commands in a script, one can run the script to complete a task or achieve a specific result. An initial Google search yielded results for a website with a script template to download all of one Twitter user's tweets (yanofsky). In the early lines of the script, a plug-in called tweepy was mentioned along with the site for download.

After both tweepy and Python were downloaded, the script had to be adapted and personalized. Reading through the instructional documents on tweepy.org identified the next steps. This involved obtaining a consumer key and secret from the Twitter API. Once the information was obtained, it was plugged into the script. Also, directions to call

for the system path to import tweepy had to be added into the script. To download tweets, the user's Twitter handle was typed into the relevant section of the script, and the program was ran. This was done for each candidate.

To begin analysis of our data, simple percentages were calculated from the coded tweets to answer the research questions. Furthermore, while coding the tweets, the researcher took note of qualitative differences between the candidates' tweets overall, focusing on the unique nature of Julie Raque Adams' tweets.

Results

RQ_1: Do candidates use Twitter primarily to communicate issues, share campaign media, to promote campaign events, or to call followers to act?

Out of the 1347 total tweets, 10.91 percent mentioned campaign issues, 10.62 percent shared campaign media, 13.36 percent promoted campaign events, and 21.23 percent called followers to act. Alison Lundergan Grimes focused on calls to act in her Twitter campaign with 31.85 percent of her tweets including a call to act. Events comprised 16.31 percent of Grimes' tweets. Campaign media shares comprised 8.92 percent of her tweets, and issues were mentioned in 10 percent of her tweets. Similarly, Mitch McConnell included calls to act in 23.29 percent of his tweets. Issues were in 10.27 percent, media were in 7.53 percent, and events were in 9.25 percent of his tweets. Ron Leach mentioned issues, media, events, and calls to act in 9.76 percent, 29.27 percent, 24.39 percent, and 1.22 percent of his tweets respectively. Several of the candidates did not include any tweets in specific categories.

Brett Guthrie and Dean Schamore did not mention issues, Siddique Malik did not promote any campaign events, Jason Steffen did not call followers to act, and Joe Choate only promoted events, not including issues, media, or calls to act. Of these candidates, 63.16 percent of Guthrie's tweets mentioned events, 46.43 percent of Malik's tweets mentioned issues, and 57.14 percent of Choate's tweets provided event information. Steffen mentioned issues in 41.18 percent of his tweets and media in 47.06 percent of his tweets. Jenean Hampton's tweet content composition was as follows: issues 3.33 percent, media 10 percent, events 13.33 percent, and calls to act 6.67 percent. Schamore tweeted

about media and events equally with only one call to act. Julie Raque Adams focused on issue in 5.52 percent of tweets, media in 3.31 percent, events in 1.66 percent, and calls to act in 3.31 percent of tweets.

RQ_2: Do candidates use Twitter's structure to post personal tweets or interact with followers?

Overall, 7.57 percent of tweets were personal, and 7.5 percent involved user interaction. Six of the candidates did not interact with users in their tweets, while one candidate did not post any personal tweets. Percentages for each candidate can be seen below in Table 1.

Table 1

Summary Results of Personal and User Interaction Tweets

	Personal	User Interaction
Grimes	3.23	9.69
McConnell	1.37	5.14
Leach	2.44	0
Guthrie	5.26	0
Hampton	13.33	0
Malik	1.79	12.50
Adams	36.46	8.84
Steffen	0	0
Choate	14.29	0
Schamore	15.38	0

RQ_3: Are most campaign-related tweets native to the candidate and his/her campaign or retweets/modified tweets?

Of all the combined tweets, 38.23 percent were not purely native to the campaign; 33.85 percent were retweets, and 4.38 percent were modified tweets. The percentage of non-native tweets for each candidate using Twitter can be found in Table 2.

Table 2
Summary Results of Non-Native Tweets

	Retweets	Modified Tweets	Total
Grimes	28.62	4.38	37.38
McConnell	48.63	0.34	48.97
Leach	7.32	0	7.32
Guthrie	0	0	0
Hampton	20.00	3.33	23.33
Malik	12.50	0	12.50
Adams	56.35	0	56.35
Steffen	5.88	0	5.88
Choate	42.86	0	42.86
Schamore	23.08	0	23.08

RQ_4: How often do candidates use technical conventions such as @ and # on Twitter?

The symbol #, known on Twitter as a hashtag, was included in 60.73 percent of all tweets. The majority of these tweets were sent by Grimes and McConnell. Percentages of hashtags and at symbols used by the candidates can be found in Table 3.

Table 3

Summary Results of the Inclusion of # and @

	#	@
Grimes	80.15	57.85
McConnell	90.07	68.49
Leach	0	9.76
Guthrie	0	0
Hampton	6.67	26.67
Malik	8.93	37.50
Adams	13.26	67.40
Steffen	5.88	88.24
Choate	28.57	57.14
Schamore	0	23.08

RQ_5: How often do candidates include links, photos, graphics, audio, or video?

Links were included in 28.88 percent of the tweets. Percentages of the tweets for each link category can be found in Table 4. Graphics were in 19.97 percent of the tweets, and photos were posted with 17.45 percent of the tweets sent. None of the candidates included audio in their tweets, and only Adams and McConnell included videos, with Adams posting one and McConnell posting two.

Table 4

Summary Results of Link Types

Link Type	% of Tweets
Facebook	6.16
YouTube	4.31
Instagram	1.48
Campaign Website	4.38
News Site	7.42
Crowd-Funding Site	0.97
Other Site	4.16

RQ_6: What is the relationship between candidate characteristics and the number of tweets sent?

Table 5 contains candidate characteristics and the number of tweets sent. The reference to candidate type considers whether the candidate is an incumbent (I), a challenger (C), or a participant in an open-seat race (O).

Table 5

Summary Results of Candidate Characteristics and Number of Tweets Sent

	Gender	Party	Age Group	Type	Office	# of Tweets
Grimes	F	D	25-35	C	US Senate	650
McConnell	M	R	66+	I	US Senate	292
Leach	M	D	56-65	C	US House	82
Guthrie	M	R	46-55	I	US House	19
Hampton	F	R	56-65	C	KY House	30
Malik	M	D	56-65	O	KY Senate	56
Adams	F	R	36-45	O	KY Senate	181
Steffen	M	D	36-45	O	KY Senate	17
Choate	M	D	36-45	C	KY House	7
Schamore	M	D	46-55	O	KY House	13

Analysis/Conclusion

Interpretation of Results

In response to the first research question, candidates tweeted to call followers to act and to promote events more than they tweeted about issues and shared campaign-related media. To get one's message to reach individuals using Twitter, those individuals much choose to follow the person. Therefore, Twitter's main benefit for political candidates is the engagement of supporters. By calling followers to act, the campaign is asking those who believe in the candidate to support his or her campaign in some way or to spread the individual's message. Promoting events on Twitter is also a viable option because the tweets are reaching those who would be interested in attending. The candidate or his or her campaign can write a brief statement asking followers to donate or promoting the next campaign rally. This makes sense for Twitter where each post can only be 140 characters. If a candidate is trying to appeal to a skeptical audience, they most likely will not be able to sway them with an issue position communicated through an application with a restraining character limit. However, candidates should not completely avoid mentioning campaign issues on Twitter.

Tweeting about a candidate's stance on an issue allows for a dialogue between the candidate and potential voters. Using Twitter's structure, a user can easily reply to a tweet. If a candidate responds to concerns from potential voters, the Twitter user may feel as though the candidate is truly running for office to serve the people. Yet, the results for the second research question show that candidates do not utilize this function of Twitter often. Potential voters have few opportunities to communicate with political candidates

without some type of barrier. They must take the time to call and talk to someone with the campaign; if they want to talk to the candidate, they may have scheduling issues. If they write a letter, it may take several days or weeks to get a response. While individuals may be able to talk to candidates at events, they are sacrificing time waiting for others to have conversations. On the other hand, a potential voter can easily type a reply to a candidate on Twitter. If the candidate then takes advantage of this, he or she will be able to engage with more possible constituents. This is similar to the idea behind the use of personal tweets; the candidate appears to be a normal person that can relate to the voters. However, candidates in this study, with the exception of Adams, do not use these often.

Another benefit of Twitter is the concept of a retweet which allows a user to reach people outside of his or her group of followers. This is useful for political candidates who have their followers retweet calls to act or event information. When a candidate is the one retweeting, there needs to be balance. Individuals choose to follow a candidate to see content from them. If the candidate constantly retweets other people, followers may become irritated. Of the tweets in this study, 38.23 percent were retweets. For a few of the candidates, retweets were nearly the majority; for Adams, they were the majority. Candidates need to ensure that retweets do not overwhelm their own voices. The candidates in the present study rarely used modified tweets, but they are a better option than retweets. Using a modified tweet, one can share a tweet while commenting on it, maintaining the presence of the candidate's voice.

While the use of retweets and modified tweets propose knowledge of Twitter, hashtags and the @ symbol suggest a sophisticated Twitter user. Based on the results of

the tweet analysis, Grimes and McConnell know Twitter well. However, both were competing for the highest level of office included in the study. This may be connected with more funding and a larger staff rather than the candidates' knowledge of Twitter. Twitter sophistication can also be demonstrated through the inclusion of photos, graphics, links, audio, and video. Based on previous Twitter use by the researcher, video seems to be a more recent feature that is slowly adopted. Only Adams and McConnell posted videos; this seems to mean that they or their campaigns have more Twitter knowledge than the other candidates. Links may seem to indicate knowledge, but the type of link could show otherwise. Leach almost always linked to Facebook in his tweets; he posted on Facebook and just shared the posts on Twitter. This alludes to the idea that he or his campaign do not know much about Twitter.

Not many conclusions can be drawn in response to the sixth research question. While some trends, such as the idea that females tweet more, are present, other elements do not have enough data. Age may be a predictor, but other factors, such as level of office would need to be controlled. This is not the only validity issue in this study. Since all of the tweets were coded by one individual, fatigue may have impacted analysis of the tweets. Without multiple coders, no intercoder reliability was established, and no numerical predictors can provide insight into possible deviations in interpretations of the coding rules. Also, using total percentages of all the tweets may create a skewed perception since some candidates sent up to 650 tweets while others tweeted as little as seven times. Finally, the sample size is too small and localized to make general conclusions. A larger sample size could be considered in future studies.

When coding the tweets, Adams' style appeared to differ greatly from the styles of the others. She was the only candidate to retweet cat photos, and only 3.31 percent of her tweets called followers to act. To determine the potential reasoning behind this difference, one would need to analyze the circumstances of the race. Further studies should consider the competitiveness of the race when analyzing the differences in Twitter use.

Ultimately, candidates use Twitter in different ways. The results of this study seem to suggest that biographical characteristics are related to the number of tweets, and content and technical categories can serve as an indicator of funding and staff size as well as knowledge of the application. Further research is needed to determine the nature of these relationships and statistical evidence is needed to find correlations.

Reflection

This research project was an individual effort similar to a project I completed as a part of a class. While I enjoy research, conducting a study independently was a challenge, especially when balancing internships, school work, and management in my major. Through the research, I found that several theories I formed about social media throughout my internships are supported in the literature. Twitter and other forms of social media have the potential to change elections. All of this research has connected into my courses in political science as well, specifically in regard to political behavior and engagement.

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Appendices

Appendix A: Candidate Bios

Alison Lundergan Grimes Race: US Senate for Kentucky Birthday: November 23, 1978 Gender: Female Challenger, Democrat Total Votes: 584,698 # of Tweets: 650	Mitch McConnell Race: US Senate for Kentucky Birthday: February 20, 1942 Gender: Male Incumbent, Republican Total Votes: 806,787 # of Tweets: 292
Brett Guthrie Race: US House Kentucky District 2 Birthday: February 18, 1964 Gender: Male Incumbent, Republican Total Votes: 156,936 # of Tweets: 19	Ron Leach Race: US House Kentucky District 2 Birthday: ? Age: 50[1] Gender: Male Challenger, Democrat Total Votes: 69,898 # of Tweets: 82
Jody Richards Race: Kentucky House District 20 Birthday: 02/20/1938 Gender: Male Incumbent, Democrat Total Votes: 6,237 Got Twitter on January 29, 2015	Jenean Hampton Race: Kentucky House District 20 Birthday: May 12, 1958 Gender: Female Challenger, Republican Total Votes: 3,610 # of Tweets: 30
Siddique Malik Race: Kentucky Senate District 36 Birthday: ? Age: 59[2] Gender: Male Open seat, Democrat Total Votes: 16,011 # of Tweets: 56	Julie Raque Adams Race: Kentucky Senate District 36 Birthday: June 11, 1969 Gender: Female Open seat, Republican Total Votes: 31,623 # of Tweets: 181
Jason Michael Steffen Race: Kentucky Senate District 24 Birthday: ? Age: 39[3] Gender: Male Open seat, Democrat Total Votes: 13,547 # of Tweets: 17	Will Schroder Race: Kentucky Senate District 24 Birthday: June 29, 1982 Gender: Male Open seat, Republican Total Votes: 21,792 Does not have Twitter
Joe Choate Race: Kentucky House District 21 Birthday: ? Age: ? Gender: Male Challenger, Democrat	Bart Rowland Race: Kentucky House District 21 Birthday: April 11, 1977 Gender: Male Incumbent, Republican

Total Votes: 6,391 # of Tweets: 7	Total Votes: 8,613 Does not have Twitter
Dean Schamore Race: Kentucky House District 10 Birthday: August 19, 1968 Gender: Male Open seat, Democrat Total Votes: 8,099 # of Tweets: 13	Alan Claypool Race: Kentucky House District 10 Birthday: ? Age: ? Gender: Male Open seat, Republican Total Votes: 7,002 Does not have Twitter

Appendix B: Coding Rules

Non-Content Categories

A. CANDIDATE
   a. 1 = Lundergan Grimes
   b. 2 = McConnell
   c. 3 = Leach
   d. 4 = Guthrie
   e. 5 = Hampton
   f. 6 = Malik
   g. 7 = Adams
   h. 8 = Steffen
   i. 9 = Choate
   j. 10 = Schamore

B. GENDER
   a. 1 = Female
   b. 2 = Male

C. PARTY AFFILIATION
   a. 1 = Democrat
   b. 2 = Republican

D. CANDIDATE TYPE
   a. 1 = Incumbent
   b. 2 = Challenger
   c. 3 = Open Seat Race Participant

E. BRANCH OF OFFICE
   a. 1 = United States Senate
   b. 2 = United States House of Representatives
   c. 3 = Kentucky Senate
   d. 4 = Kentucky House of Representatives

F. AGE: The candidate's age at the time of the election
   a. 1 = 25-35
   b. 2 = 36-45
   c. 3 = 46-55
   d. 4 = 56-65
   e. 5 = 66+
   f. 6 = Could Not Be Determined

G. TWEET ID: Tweet number *(provided in spreadsheet)*

H. DATE: Date and time of the tweet *(from candidates' tweet database)*

I. TWEET: The tweet itself *(from candidates' tweet database)*

Content Categories (J-M Must relate to the user's own campaign)

J. CAMPISSUE (Campaign Issue)
   a. Any reference to important election issues such as the economy, health care, or foreign affairs; does not include references to different groups of people
   b. Must refer to a specific issue, not generality
   c. 1 = Present
   d. 2 = Not Present

K. CAMPMEDIA (Campaign-Related Media): Any reference to campaign-related media including advertisements, endorsements, news stories, and public opinion polls
   a. 1 = Present
   b. 2 = Not Present

L. CAMPEVENT (Campaign Event): Any reference to a campaign event including rallies, speeches, or debates; excludes simple references to crowds or presence in a location
   a. 1 = Present
   b. 2 = Not Present

M. CALL TO ACT: Any reference to support given or needed including donations, volunteers, votes, or retweets
   a. 1 = Present
   b. 2 = Not Present

N. OFFICE-RELATED: Any reference to events, votes, or other items native to the office
   a. 1 = Present
   b. 2 = Not Present

O. USER INTERACTION: Any tweet involving a conversation, usually replying to an individual; does not include a simple retweet
   a. 1 = Present
   b. 2 = Not Present

P. PERSONAL: Tweets "like those one might see on a Facebook page" including family photos, comments about heading to church services or

family events, references to national holidays or memorials, spiritual or inspirational messages, quotes or other matters not political in nature
   a. 1 = Present
   b. 2 = Not Present

Technical Categories

Q. PHOTO: The inclusion of a still photograph
   a. Does not include images with text, objects, or other photos overlay
   b. Includes picture collages or "Pic Stitch"
   c. 1 = Still photograph present
   d. 2 = Picture collage/stitch present
   e. 3 = Not Present
   f. 4 = Could Not Be Determined

R. AUDIO: The inclusion of a stand-alone audio clip; excludes audio that also accompanies a video clip
   a. 1 = Present
   b. 2 = Not Present

S. VIDEO: The inclusion of a video clip including or not including audio
   a. 1 = Present
   b. 2 = Not Present

T. GRAPHIC: The inclusion of a static graphic image, including a photo altered to have text, objects, or other images
   a. 1 = Present
   b. 2 = Not Present

U. LINK
   a. The inclusion of a live link to a web site, not including the link that references the tweet itself
   b. A link that is distorted in the download from Twitter API ("http://â€¦" or "http://t.co/0FGcâ€¦" for example) should be coded "Could Not Be Determined"
   c. 1 = Not Present
   d. 2 = Facebook
   e. 3 = YouTube
   f. 4 = Instagram
   g. 5 = Campaign Website
   h. 6 = News Site
   i. 7 = Crowd-Funding Site
   j. 8 = Other Site
   k. 9 = Could Not Be Determined

V. HASHTAG: The inclusion of a hashtag used as a Twitter content organizer
   a. 1 = Present
   b. 2 = Not Present

W. AT: A reference to a specific Twitter user using the @ convention
   a. 1 = Present
   b. 2 = Not Present

X. RETWEET: Indicated by RT at the beginning of the tweet
   a. 1 = Present
   b. 2 = Not Present

Y. MODTWEET (Modified Tweet): Indicated by "@....." in tweet, usually preceded by text and MT or RT
   a. 1 = Present
   b. 2 = Not Present

Keyword Categories (for a positive or negative rating, the tweet must be explicit; neutral will include statements of fact that could be interpreted based on ideology)

Z. OBAMA: Any mention of Obama, Barack, the president, @POTUS, or @BarackObama
   a. 1 = Present Positive
   b. 2 = Present Negative
   c. 3 = Present Neutral
   d. 4 = Not Present

AA. DEMOCRATS: Any reference to Democrats, the Democratic party, or liberals
   a. 1 = Present Positive
   b. 2 = Present Negative
   c. 3 = Present Neutral
   d. 4 = Not Present

BB. REPUBLICANS: Any reference to Republicans, the Republican party, or conservatives
   a. 1 = Present Positive
   b. 2 = Present Negative
   c. 3 = Present Neutral
   d. 4 = Not Present

CC. OPPONENT: Any reference to the candidate's opponent
   a. 1 = Present Positive

b. 2 = Present Negative
c. 3 = Present Neutral
d. 4 = Not Present

DD. OTHER: Any reference to another political figure

a. 1 = Present Positive
b. 2 = Present Negative
c. 3 = Present Neutral
d. 4 = Not Present

Appendix C: CITI Training

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COURSEWORK REQUIREMENTS REPORT*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Hannah Nieman (ID: 4529756)
- **Email:** niemanh@uindy.edu
- **Institution Affiliation:** University of Indianapolis (ID: 473)
- **Institution Unit:** Communication
- **Phone:** (812)569-3281

- **Curriculum Group:** Human Research
- **Course Learner Group:** Group 2.Social / Behavioral Research Investigators and Key Personnel.
- **Stage:** Stage 1 - Basic Course
- **Description:** The social behavioral track is applicable when you conduct epidemiologic, genetic, prevention/ screening, psychosocial and/or quality of life studies.

- **Report ID:** 14648320
- **Completion Date:** 02/21/2015
- **Expiration Date:** 02/20/2017
- **Minimum Passing:** 75
- **Reported Score*:** 89

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED
Belmont Report and CITI Course Introduction	02/21/15
Students in Research	02/21/15
History and Ethical Principles - SBE	02/21/15
Defining Research with Human Subjects - SBE	02/21/15
The Federal Regulations - SBE	02/21/15
Assessing Risk - SBE	02/21/15
Informed Consent - SBE	02/21/15
Privacy and Confidentiality - SBE	02/21/15
Research and HIPAA Privacy Protections	02/21/15
Conflicts of Interest in Research Involving Human Subjects	02/21/15

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

CITI Program
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