

Twitter Style: An Analysis of How House Candidates Used Twitter in Their 2012 Campaigns

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ABSTRACT This article examines how House candidates used Twitter during the 2012 campaign. Using a content analysis of every tweet from each candidate for the House in the final two months before the 2012 election, this study provides a snapshot of House candidates' "Twitter style." In particular, this article shows that incumbents, Democrats, women, and those in competitive races tweet differently than challengers, Republicans, minor party candidates, men, and those in safe districts.

The use of social media in political campaigns has become commonplace since Barack Obama used Facebook and Twitter extensively to raise funds for his campaign in 2008. Some individuals attributed Obama's success in 2008 to his social networking ability (Williams and Gulati 2008). As Tumasjan et al. (2010) describe, "after the rise of candidate websites in 1996, e-mail in 1998 (the Jesse Ventura campaign), online fund-raising in 2000 (the John McCain campaign), and blogs in 2004 (the Howard Dean campaign; Gueorguieva 2007), Twitter has become a legitimate communication channel in the political arena as a result of the 2008 campaign" (178).

Twitter, which began in 2006, has become a valuable tool for politicians to communicate with their followers. For those politicians who do not have large sums of money to spend on campaign commercials, tweeting allows them to discuss their political agenda in 140 characters or less for free. Tweets are highly visible on the politician's message board and can be linked to other boards as well through the use of hashtags and re-tweets. For politicians wanting to reach out to young voters, Twitter is the ideal platform because those who use Twitter on a daily basis tend to be under 30 years old (Pew Research Center 2013).

In the past few years, some researchers have turned to Twitter to get a sense of the political mood of the electorate (Pear Analytics 2009; Skemp 2009; Tumasjan et al. 2010). Few have examined how politicians use this social networking site; those who have examined

politician tweets have limited their research (e.g., taking a small sample of senators or governors or selected the tweets when there were few Twitter users) (Glassman, Straus, and Shogan 2010; Golbeck, Grimes, and Rogers 2010; Lassen and Brown 2011).

This article examines how House candidates used Twitter in the 2012 campaign. A content analysis of every tweet from each candidate for the House in the final two months before the 2012 election reveals House candidates' "Twitter style." In particular, this article examines whether incumbents, Democrats, women, and those in competitive races tweet differently than challengers, Republicans, men, and those in safe districts.

PREVIOUS TWITTER RESEARCH

Mayhew (1974) argued that members of Congress (especially in the House) are constantly seeking reelection, and so they look for any avenue that will publicize their platforms and activities. Because of this, political candidates should flock to social networking sites that are free and allow members to communicate directly with their constituents. Research on how members of Congress use the Internet and social networking sites, however, shows that members differ greatly in their desire to "go online." For instance, Williams and Gulati (2006, 2009) examined the use of Facebook by members of Congress and found great variance between members.

Twitter emerged on the scene as a political tool during the 2008 election. That year, Barack Obama used the social networking site extensively to promote his election, and many researchers credit his use of Twitter to his win (Williams and Gulaiti 2010). Although some research on how members of Congress use Twitter has been completed (Amman 2010; Glassman, Straus, and Shogan 2010; Golbeck, Grimes, and Rogers 2010; Lassen and Brown 2011; Parmelee and Bichard 2011), this research has focused primarily on which members are most likely to adopt Twitter. Lassen and Brown (2011), for instance, try to determine why some members of Congress have

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Twitter accounts while others do not. Their findings show that members of the minority party were more likely to have accounts and use them than members of the majority party. Amman (2010) also finds that members of Congress are more likely to use Twitter when they are in competitive races.

Collecting data on who uses Twitter and how often they use it is the first step in understanding how members of Congress use Twitter. The second step is determining what the tweets mean. This is the most difficult part about evaluating how members of Congress use Twitter, and there is little research in this area. Golbeck et al. (2010), Glassman et al. (2010), and Haber (2011) present multiple ways of classifying the content of congressional tweets. Golbeck et al. (2010) find that how members of Congress use Twitter is similar to how their offices would communicate through other media. Golbeck et al. (2010) coded 200 tweets from each member listed on TweetCongress in 2009 (ranging from 69 members to 159 at the end of their study). Their primary finding was that members of Congress tweet informational messages most often and spend some time directly communicating with their followers (7.4% of the total tweets). Glassman et al. (2010) find that the content of tweets differs depending on whether members of Congress are in session or are in recess. When Congress is in session, the majority of their tweets tend to be about policies, and when in recess members use more “district” tweets (referring to projects in their home districts). Haber (2011) presents the most extensive analysis of member’s tweets and shows that party identification matters (Democrats and Republicans tweet differently) and competitive Senate races have more negative tweets.

Because research has shown that the majority party typically is followed more by traditional media than the minority party, and the minority party uses Twitter more often (Lassen and Brown 2011), we expect that Democrats will rely more on Twitter.

Missing from the current literature is a comprehensive overview of how members and challengers in House races use Twitter. Most studies have only examined tweeting from members of Congress (Glassman, Straus, and Shogan 2010; Golbeck, Grimes, and Rogers 2010; Lassen and Brown 2011). The two studies that have examined Twitter use during an election, by following both incumbents and challengers, have only examined members from the Senate (Amman 2010; Haber 2011). The reason for a lack of research on House members and their competitors is the sheer size of the House. In 2012, for instance, more than 1,100 individuals were running for seats in the House. It is easier to follow and code the tweets of one-third of the Senate (with their competitors). It is also easier to code the tweets of current members of the House than to find all of the Twitter pages from their competitors because in many races incumbents face two or more challengers.

This study examines the Twitter style of candidates (both incumbents and challengers) running for US House of Representatives during the 2012 election. In terms of having a Twitter account, one might expect that minority party members would be more drawn to Twitter than majority group members. At the time of our study, Democrats were the minority party in the House. Because research has shown that the majority party typically is followed more by traditional media than the minority party, and the minority party uses Twitter more often (Lassen and Brown 2011), we expect that Democrats will rely more on Twitter. We also expect that third-party candidates will rely on Twitter more than Democrats or Republicans, given their minority status in the legislature.

We also expect that female candidates will tweet more often and differently than male candidates. While some research in the 1990s showed that women were less likely to use attack advertising (Witt, Paget, and Matthews 1994), recent scholarship has shown that women and men are similar in their use of negative ads and general campaigning style (Bystrom and Kaid 2002). Given that women are more likely to have Twitter accounts and tweet more often than men (Beevolve 2012), we expect that female candidates will be more likely to adopt and use Twitter more frequently. We also expect that the content of female and male candidate tweets will be similar overall.

We also examine the effect of competitiveness on tweeting. Because competitive races increase the amount of information (both positive and negative) that citizens are exposed to (Goldstein and Freedman 2002), we expect candidates in competitive races will tweet more often and more negatively than those in safe districts. On the one hand, in previous research on Twitter adoption, Lassen and Brown (2011) show that electoral marginality has no effect on adoption and usage. On the other hand, Amman (2010) and Haber (2011) find that senators are more likely to tweet if they are in competitive races. We expect that being in a race deemed competitive by political experts will have an impact on Twitter use. Differing from Lassen and Brown (2011) in our definition of competitiveness and sample, we expect significant differences between those in safe and unsafe districts.

Finally, we investigate the effect of incumbency on candidates’ Twitter style. Some research on Facebook use suggests that incumbents

have more friends but challengers spend more time updating their status (Williams and Gulati 2010). Given these findings, we expect that incumbents will have more followers on Twitter but challengers will be more active. Research has also shown that incumbents are more likely to engage in positive campaigning while challengers are more likely to use negative campaigning (Benoit 2004). Therefore, we expect that challengers will be more likely to “attack” their opponent on Twitter.

DATA AND METHOD

The data for this study come from a comprehensive content analysis of every tweet by US House candidates in the two months before the 2012 election. In total, 67,119 tweets were coded for 1,119 individuals.¹

We developed a four-step content analysis strategy. First, we identified the Twitter pages to code. To do this, we visited the candidates’ websites that usually displayed a Twitter link on their homepage. If this link was not provided, we performed a Google search of the person’s name and district with the word “Twitter.” TweetCongress.org was also helpful in finding the Twitter pages of current representatives. If individuals had multiple Twitter accounts, then the Twitter page associated with the candidate’s campaign was coded.²

Second, we hand-coded the tweets. Following in the footsteps of Haber (2011), tweets were coded as either “Attack,” “Campaigning,” “Mobilization,” “Issues,” “Media,” and “User Interaction.” We also added a few categories: “Attack Other,” “Personal,” “Obama” “Romney.” A description of the coding scheme is given here:

- “Attack” tweets were those when the individuals directly attacked or criticized their opponents. “Attack Other” tweets attacked the opposing party or the opposing party’s president. For instance, on October 20, Eric Swalwell (D-CA 15) tweeted “Surprise! Another candidate event and & another absence for Pete Stark. Does he know there’s an election or want the job?” This tweet was coded as an “attack.” On November 5, Jim Reed (D-CA 1) tweeted “I’m all for low taxes. GOP’s anti-tax religion has gotten so fundamentalist they see no other needs or priorities.” This is an example of an “attack other” tweet.
- “Media” tweets were those that the candidate referenced any media that discussed the candidate. Usually these tweets referenced MSNBC, Fox News, the *Daily Show*, the *Colbert Report*, and local television stations. Candidates regularly linked articles, videos, or blog posts about them to their tweet. Wayne Winsley (R-CT 3) tweeted “Tune in now to hear my interview with Vinnie Penn <http://www.iheart.com/#/live/453/?autoplay=true>” on September 27. The link was of his radio interview that day.
- When the candidate tweeted about where they had been, linked videos that their campaign had made, and referenced speeches given to groups, these were coded as “campaign” tweets. Most of these tweets serve as a bulletin board to their followers. For instance, Martha Roby (R- AL 2) tweeted “We had a great time at our “Meet with Martha” event in Tallassee! Thanks Noah & Pam Griggs for hosting us at Cafe1220 pic.twitter.com/iyAuru1” on October 16.
- “Issue” tweets referenced an important campaign issue, such as abortion, the economy, gay marriage, health care, terrorism, and gun rights.³ Luis Gutierrez (D-IL 4) said on October 15 “As I told a group of Arizona #DREAMers on Friday—the fight for #immigration reform as just begun.” Because this tweet was about immigration, it was coded as an “issue” tweet.
- “Mobilization” tweets tried to get citizens involved in some way in the campaign. These tweets usually asked citizens for donations or asked citizens to vote. These tweets became more frequent closer to Election Day. Bobby L. Rush (D-IL 1) tweeted on September 18 “You can request an absentee ballot for the Nov. election beginning on September 27, 2012. More info at <http://go.usa.gov/rFPA> #VoteReady.”
- “Personal” tweets were like those one might see on a Facebook page. These usually involved family photos, comments about heading to church services, tweets referencing September 11, and were sometimes about nothing in particular. For instance, on October 7, Terry Phillips (Independent-CA 23) tweeted “JUST ONE BREATH: Valley fever vaccine stalls after early promise - <http://BakersfieldCalifornian.com> <http://www.bakersfieldcalifornian.com/archive/x1903885972/JUST-ONE-BREATH-Valley-fever-vaccine-stalls-after-early-promise>.” The news story linked to this tweet had nothing to do with Terry Phillips’ campaign.
- “User Interaction” tweets were those when the candidate responded to a person or follower. These tweets use the “@” sign before the other user’s name. This is a way of personally interacting with their Twitter followers. For instance, Mark Pocan (D-WI 2) tweeted “@tarrjoe @TammyBaldwinWI Apparently not!” on September 6. This is an example of a candidate directly communicating with a follower (in this case, users tarrjoe and TammyBaldwinWI).

- To see whether Democrats or Republicans were more likely to reference their presidential candidate, we also coded for the number of times each candidate mentioned Obama and Romney in their tweets.

As you might imagine, many tweets fit the multiple categories described here. Tweets were coded in two (or more) categories only when they interacted with other people or included references to Obama or Romney. If the tweet was a media tweet that also discussed issues, the tweet was only coded as a media tweet. If the tweet could be coded as a campaign tweet and an issue tweet, it was only coded as an issue tweet.

Third, we coded candidates’ gender, party, and incumbency status. Finally, we coded for whether the person was located in a race deemed “competitive” by the Cook Political Report. Any race listed as a “toss-up” or “leaning Republican” or “leaning Democratic” by the Cook Political Report on September 13, 2012, was coded as competitive. This is an improvement over other studies examining competitiveness. Earlier work has used margin of victory as a proxy of competitiveness. Our measure was taken at the beginning of the coding cycle because decisions are made early during a campaign as to whether more or less money will be used, and we were hoping to see whether candidates will “tweet” differently if they are listed as being in competitive races.

FINDINGS

Who Uses Twitter?

Most candidates for the US House in 2012 had a Twitter account. For information regarding the percentages of women, men, Republicans, Democrats, third-party candidates, those in competitive and safe districts, incumbents and challengers who had Twitter and were tweeting in 2012, see table 1.

In general, women, major-party candidates, those in competitive races, and incumbents were more likely to have Twitter accounts than men, third-party candidates, those in safe races, and challengers.⁴ To see the effects of gender, party, competitiveness, and incumbency, we calculated a logit model for whether the person had a Twitter

Table 1
Percentage of Candidates with Twitter Accounts

	AVERAGE
Women	82.2
Men	65.5
Democrats	81.1
Republicans	84.8
Third Party	25.2
Competitive	79.5
Non-Competitive	66.7
Incumbents	89.6
Challengers	57.6

Table 2

Logit Model of Twitter Adoption

	COEFFICIENT
Women	0.84 ** (0.23)
Third	-2.30 ** (0.18)
Competitive	0.84 ** (0.25)
Incumbent	0.99 ** (0.12)

Standard errors are reported in parentheses.

N = 1,119, ** $p \leq .01$.

Pseudo R² = 0.26.

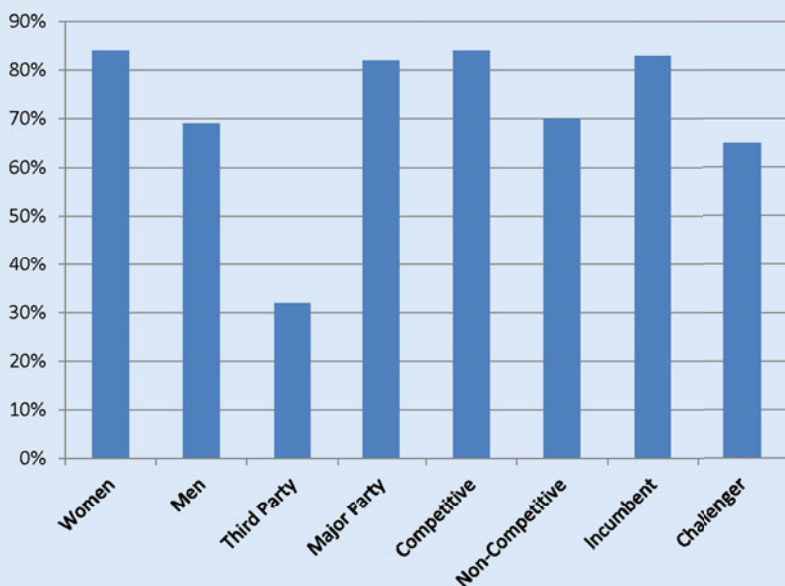
account. The results displayed in table 2 show that women, major-party candidates, those in competitive races, and incumbents are significantly more likely to have Twitter accounts after controlling for the other candidate characteristics.

Third-party candidates were significantly more likely to use attack tweets than Republicans, and they were more likely to attack Republicans, Democrats, Romney, and Obama than either of the two major parties.

Predicted probabilities (figure 1) show that women were 15% more likely to have Twitter accounts than men; major-party candidates were 50% more likely to have Twitter than third-party candidates; candidates in competitive races were 14% more likely to have Twitter; and incumbents were 18% more likely to have Twitter than challengers.⁵

Figure 1

Predicted Probabilities—Twitter Adoption



What Do Candidates Tweet About?

First, we calculated the average number of each type of tweet for candidates running in the 2012 House races. The averages are given below in figure 2. Those who did not have a Twitter account and did not tweet during the last two months of the campaign were excluded.⁶ Candidates who use Twitter have on average 4,139 followers. They also used approximately 88 tweets on average over the last two months of the campaign.

Candidates spend approximately one-third of their time on Twitter not talking about their campaigns at all, with 29% of the tweets falling in the “personal” category. These tweets were about items not related to their campaigns, such as reflections on the September 11 attacks, pictures of their family and friends, and football games. Candidates also had more mobilization tweets than attack or attack other tweets. On average, candidates only attacked their opponents about five times, and they only attacked the opposing party or presidential candidate four times.

Candidates spent considerable Twitter time communicating with their followers in the last two months of the election. On average, candidates sent out 13 personal interaction tweets (15% of their total tweets).⁷

Party

Democrats and Republicans were very similar in their approach on Twitter in the 2012 election (table 3). They had similar numbers of followers and tweets. Democrats had on average 4,420 followers and tweeted 84 times, while Republicans had 4,577 followers and tweeted 81 times. The way that they tweeted was also similar.

While Democrats were more likely to use attack tweets, the difference was not statistically significant. Republicans were, however, significantly more likely to attack the Democratic Party and President Obama than Democrats were to attack the Republican Party or Romney. In particular, Republicans were significantly more likely to mention Obama by name (4.47 times on average) than Democrats (2.32 times on average).

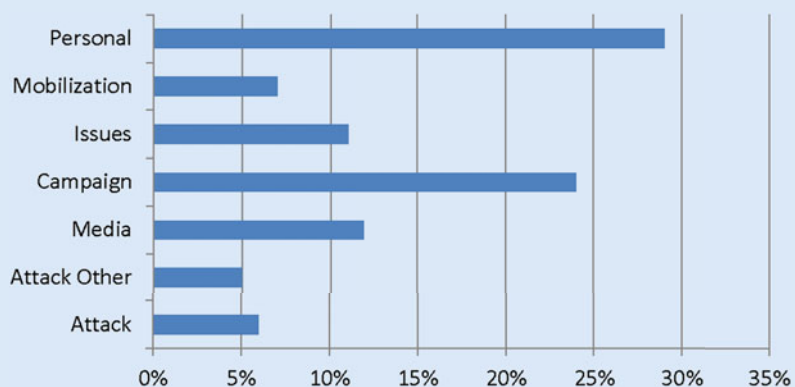
Republicans and Democrats were similar in all other regards. They both used media tweets around 10 times, campaign tweets around 21 times, mobilization tweets around six times, and personal tweets 23 times. They were also just as likely to mention important issues in American politics. While Democrats were more likely to interact with other users on Twitter, the difference was not significant.

In Twitter use, third-party candidates, however, are very unique. Those who had Twitter accounts were more aggressive than the major party candidates. They had significantly fewer followers (only 606 on average), but tweeted considerably more (136 times on average).

Third-party candidates were significantly more likely to use attack tweets than Republicans,

Figure 2

Twitter-Style of All Candidates



and they were more likely to attack Republicans, Democrats, Romney, and Obama than either of the two major parties. They

These results suggest that women are more active Twitter campaigners than men. They not only campaign more on this popular social networking site, but they also are significantly more likely to criticize their opponents.

were also more likely to link stories about them in the media and discuss major American political issues in their tweets than Democrats and Republicans. Third-party candidates used significantly

Table 3

Twitter Style by Party

	DEMOCRAT	REPUBLICAN	THIRD PARTY
Attack ^c	6.4%	5.6%	5.7%
Attack Other ^{abc}	3.5%	5.6%	7.5%
Media ^{bc}	11.3%	12.6%	14.3%
Campaign	25.2%	25.3%	17.7%
Issues ^{bc}	9.8%	11.1%	13.6%
Mobilization	7.8%	7.2%	5.6%
Personal ^{bc}	29.6%	27.3%	31.1%
User Interaction ^{bc}	15.8%	12.2%	20.1%
Obama ^{abc}	2.8%	5.5%	6.4%
Romney ^{bc}	2.4%	2.9%	4.3%

a= Significant difference between Democrats and Republicans, $p \leq .10$.
 b= Significant difference between Third Party and Democrats, $p \leq .10$.
 c= Significant difference between Third Party and Republicans, $p \leq .10$.

more personal tweets, which had nothing to do with the campaign, but they were also more likely to respond to other Twitter users.

Gender

Women candidates had significantly more followers than men on Twitter. Women on average had 6,167 followers, while men had 3,591 followers. Not only did women have more followers, but they also tweeted more often (107 times to 82 times).

Table 4 presents the percentage of time that men and women spent tweeting in each category. Women, on average, tweeted more than men in all but four of the categories. Women were significantly more likely to use attack tweets, campaign tweets, issues tweets, and mobilization tweets.

Women on average attacked their opponent around seven times, while men attacked five times. Women attacked the opposing party and presidential candidate 5.68 times, while men attacked 3.98 times. This is surprising given previous research that found that women and

men had similar campaign strategies (Proctor, Schenk-Hanlin, and Haase 1994). It seems that on Twitter, their campaign styles are very different.

Women also used campaign, issues, and mobilization tweets more often. On average, women used 26.31 campaign tweets, 13.7

Table 4

Twitter Style by Gender

	WOMEN	MEN
Attack+	6.5%	4.4%
Attack Other	5.3%	4.8%
Media	11.5%	12.5%
Campaign*	24.6%	24.0%
Issues**	12.8%	10.2%
Mobilization**	9.1%	6.5%
Personal	26.5%	29.7%
User Interaction	15.2%	14.9%
Obama	4.2%	4.5%
Romney	2.4%	3.1%

+ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$.

Table 5

Twitter Style by Incumbency

	INCUMBENT	CHALLENGER
Attack**	1.3%	8.0%
Attack Other	5.8%	4.6%
Media*	13.5%	11.7%
Campaign**	19.7%	26.2%
Issues	14.9%	9.7%
Mobilization**	5.3%	8.1%
Personal*	35.3%	26.0%
User Interaction**	10%	16.8%
Obama	5.4%	4.0%
Romney*	3.1%	2.8%

** $p \leq .01$; * $p \leq .05$.

issues tweets, and 9.72 mobilization tweets over the two months. Men, in contrast, used fewer campaign tweets (19.72), issues tweets (8.37), and mobilization tweets (5.36). Men did send more personal, media, Obama, and Romney tweets, however.

These results suggest that women are more active Twitter campaigners than men. They not only campaign more on this popular social networking site, but they also are significantly more likely to criticize their opponents.

Incumbency

Incumbents have significantly more followers on Twitter. On average, incumbents had approximately 7,383 followers, compared to only 1,613 for challengers.⁸ Although incumbents had more followers, they did not tweet as much as challengers. On average, incumbents tweeted 60 times in the final two months of the election, compared to 109 times for challengers. This difference is statistically significant. Challengers were significantly out-tweeting incumbents.⁹

Not only were challengers out-tweeting incumbents, but the type of tweets that they used were significantly different. The differences between incumbents and challengers are given in table 5. The largest difference was in attack tweets. Challengers were more than seven times more likely to tweet an attack than an incumbent. On average, challengers tweeted 8.73 attacks compared to only .78 for incumbents.¹⁰

Challengers were also significantly more likely to use campaign, mobilization, and user interaction tweets. In contrast, incumbents spent more of their time sending personal tweets. This means that challengers were more active on Twitter regarding their campaigns, while incumbents were more likely to talk about things not related to their campaigns.

Competitiveness

According to the Cook Political Report, 116 of the candidates with Twitter accounts who tweeted during the last two months of the

campaign were classified as being in competitive races on September 13, 2012. On average, these individuals had more followers than those in noncompetitive elections. In competitive races, candidates had 4,645 followers, while those in noncompetitive races had 4,051 followers on average. Unlike other studies, we find that those in competitive races did not tweet more than those in noncompetitive races. On average, candidates in competitive races tweeted an average of 86 times, while those in noncompetitive races tweeted 88 times.

The types of tweets in competitive and noncompetitive races did differ significantly. Table 6 shows the average amount of time candidates spent on attack, attack other, media, campaign, issues, mobilization, personal, user interaction, Obama, and Romney tweets. Those in competitive races had significantly more mobilization and attack tweets. On average, candidates in competitive races used three more attack tweets than those in noncompetitive races (7.75 to 4.75). Candidates in competitive races were also more likely to use mobilization tactics on Twitter (8.39 tweets on average to 5.92 for noncompetitive races).

Candidates in the noncompetitive races were significantly more likely to use attack other tweets, which means that they were more likely to use tweets that attack the opposing party or presidential candidate. Those in noncompetitive races actually used double the amount of attack other tweets on average (4.78 for noncompetitive races and 1.89 for competitive). They were also significantly more likely to refer to Obama and Romney. Perhaps candidates in noncompetitive races felt freer to attack the opposing party, while those in competitive races felt that their main target was their opponent.

Ordinary least squares regression

To see if these findings hold given other candidate characteristics, we calculated ordinary least squares regressions for each type of tweet (and total number of tweets) while controlling for gender, incumbency, competitiveness, and partisanship. The results are listed in table 7. The results show that third-party candidates tweet more

Table 6

Twitter Style by Competitiveness

	COMPETITIVE	NON-COMPETITIVE
Attack *	9%	5.4%
Attack Other+	2.2%	5.4%
Media	8.7%	12.9%
Campaign	20.0%	24.8%
Issues	11.1%	10.8%
Mobilization*	9.8%	6.7%
Personal	28.4%	28.8%
User Interaction	13.2%	15.2%
Obama+	1.6%	5.0%
Romney*	0.7%	3.2%

+ $p \leq .10$, * $p \leq .05$, ** $p \leq .01$.

and are significantly more likely to use attack other, media, issues, personal, user interaction, Obama, and Romney tweets. Third-party candidates were simply more active and aggressive than the major party candidates.

While these results show that women are more likely to use attack tweets, after the other variables are controlled for, women are not significantly more likely to attack. Women are, however, more likely to send issue-specific and mobilization tweets. While the coefficient for campaign tweeting does not reach a conventional level of significance, it does approach it ($p = 0.105$), which suggests that women also send more campaign tweets. Female candidates are more engaged on Twitter and tweet significantly more often.

Incumbency has a huge impact on the way candidates tweet. Challengers tweet more often and send significantly more attack, campaign, mobilization, and user interaction tweets. Although it does not reach the conventional level of significance, the coefficient

(Williams and Gulati 2010). Those campaigns with more money have the ability to hire a staff to manage their Twitter accounts. Third-party candidates with Twitter accounts out-tweeted their competition in almost every category (and in general), suggesting that they also spent more time devoted to this activity.

Republicans also attacked the opposing party and presidential candidate more often possibly because they needed to play offense. They had a majority at the time of the election, but their future was uncertain.

Our findings also show that women candidates were more active Twitter users. Women have more followers and use the social networking site more often. They are also more assertive in their use. The cross-tab analysis shows that women are more likely to use attack tweets, but after incumbency and competitiveness is controlled for, the effect disappears. Women are, however, significantly more likely to use mobilization and issues tweets.

Incumbency has a huge impact on the way candidates tweet. Challengers tweet more often and send significantly more attack, campaign, mobilization, and user interaction tweets.

for media tweeting is somewhat significant ($p = 0.105$). This suggests that challengers are also more likely to link stories about them in the media. Challengers then are more active and try harder to motivate citizens online.

Finally, after incumbency is controlled for, being in a non-competitive race is associated with sending more attack other, Obama, and Romney specific tweets. Candidates in competitive and noncompetitive races send approximately the same number of tweets.

DISCUSSION AND CONCLUSION

The previous analysis shows that most members of Congress and their challengers used Twitter during the 2012 campaign. Women, major party candidates, incumbents, and those in competitive races are more likely to have used Twitter than men, third-party candidates, challengers, and those in safe races. On average, candidates tweeted 88 times. While tweets from everyday citizens in general tend to be a lot of noise (Pear Analytics 2009), tweets from candidates for the US House tend to be about their candidacy. Personal tweets only made up 29% of their total tweets. The rest of their time on Twitter was spent telling citizens about their plans for government, linking stories about them in the traditional news media, and mobilizing citizens. About 15% of their Twitter time was spent talking directly to other Twitter users, which is an improvement from user interaction levels recorded in 2009 (Golbeck, Grimes, and Rogers 2010).

This study also shows not all candidates tweet alike. There are partisan differences, especially between the major- and minor-party candidates. Republicans were more likely to attack the Democratic Party and President Obama, but otherwise used Twitter at comparable rates and styles to their Democratic rivals. Third-party candidates, however, used Twitter extensively if they had an account. As expected, third-party use of Twitter was significantly higher in almost all categories.

There are a few reasons for these findings. First, Republican and Democratic candidates are better funded. Studies have shown that campaign spending is associated with social networking

While incumbents have more followers, challengers spend significantly more Twitter time tweeting about their campaign. Challengers are more likely to tweet attacks, talk about their campaign stops, link media reports, and interact with other Twitter users. As expected, challengers use the site more often, possibly to overcome the incumbency advantage.

Finally, competitiveness does matter. While those in competitive races tweet at about the same rates as those in safe districts, what they tweet about is different. In the cross-tab analysis, those in competitive races are significantly more likely to use attack and mobilization tweet than those in safe races. After controlling for incumbency, however, the effects disappear. Those candidates in safe districts, however, were more likely to attack the opposing party and presidential candidate.

Research on Twitter use by candidates and members in Congress is a moving target. As more and more US House representatives create Twitter accounts, the research on this social networking site will continue to expand. One direction for future research is examining the content of members' issue-based tweets. In this project, we decided against coding for specific policies (such as abortion, health care, and the economy) because of time constraints. We leave this project for future researchers.

Some work suggests the number of "likes" on Facebook may serve as a proxy for "votes" on Election Day (Williams and Gulati 2010). Along these lines, it would be useful to see whether candidates with more followers were more likely to win their elections. Although it is impossible to determine whether tweeting wins elections, researchers could examine whether certain styles of tweeting are associated with winning campaigns. This analysis is the next step in our analysis. Some research suggests, however, that followers of candidates are those already aligned with their political platform (Barbera 2013), which means that many of these attack tweets and mobilization tweets are not being seen by those with few existing attitudes who would be more affected by the content of these tweets (Converse 1964).

Table 7

Ordinary Least Squares Regression of Twitter-Style

	TOTAL TWEETS	ATTACK	ATTACK OTHER	MEDIA	CAMPAIGN	ISSUES	MOBILIZATION	PERSONAL	USER INTERACTION	OBAMA	ROMNEY
Third Party	32.87* (16.20)	0.92 (1.88)	6.21** (2.00)	7.96* (3.77)	-5.70 (4.75)	10.45** (2.34)	1.05 (1.52)	17.01** (5.56)	10.84* (5.20)	5.13** (1.88)	3.24** (1.24)
Gender	22.77* (10.92)	1.66 (1.27)	1.85 (1.35)	2.10 (2.54)	5.19 (3.20)	5.57** (1.58)	3.99** (1.02)	4.25 (3.74)	3.69 (3.51)	0.96 (1.26)	0.08 (0.83)
Incumbency	-43.33** (9.41)	-7.93** (1.09)	-0.65 (1.16)	-3.55 (2.19)	-18.15** (2.76)	0.86 (1.36)	-5.48** (0.88)	-4.19 (3.23)	-11.04** (3.02)	-0.43 (1.09)	-0.80 (0.72)
Competitive	-7.63 (12.49)	2.16 (1.45)	-2.98+ (1.54)	-4.23 (2.90)	-5.56 (3.66)	0.14 (1.80)	1.75 (1.17)	-1.51 (4.28)	-2.83 (4.01)	-2.72+ (1.45)	-2.29* (0.95)
Constant	100.60** (7.39)	8.13** (0.86)	4.12** (0.91)	11.75** (1.72)	29.64** (2.17)	7.00** (1.07)	7.68** (0.69)	24.76** (2.53)	16.65** (2.37)	3.81** (0.86)	2.90** (0.56)
Adj R ²	0.04	0.07	0.02	0.01	0.06	0.04	0.07	0.02	0.03	0.01	0.02

Standard errors are reported in parentheses.

+ $p < .10$, * $p < .05$, ** $p < .01$

The reasons for more or less Twitter use by particular candidates are also unclear. We can only speculate as to why challengers tweet differently than incumbents. With additional work specifically on how candidates view Twitter we will gain a better understanding of why individuals tweet as they do. There is much work left to be done in understanding why citizens follow their representatives on Twitter, and the effect of communicating with them on this platform. Are those who get a personal interaction with their representative more likely to vote for them, and do they in turn have more positive evaluations of government and higher political efficacy? This work is left for future research.

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NOTES

- Forty-two coders took part in this project. To check intercoder reliability, 10% of the candidates were double-coded. Out of these candidates, the coders achieved 95% agreement on how each tweet should be coded.
- Only one incumbent was excluded from the analysis: Paul Ryan. Given his bid for the vice presidency in 2012, we decided not to code his tweets.
- At the time of the study, we decided against coding for specific issues. This is a direction for future research on Twitter use.
- To simplify the analysis, we have coded all candidates running as libertarians, independents, and green party candidates (as well as any other non-Republican and non-Democratic candidates) into one category called "third party candidates".
- Predicted probabilities were calculated holding all other variables at their mean values.
- When those who did not tweet and did not have Twitter are excluded, $N = 765$.
- Additional statistics on each of the variables reported in this manuscript can be attained by contacting the lead author.
- $p < .01$; Difference of means t-test.
- $p < .01$; Difference of means t-test.
- 34% of challengers had no attacks whatsoever, while 86% of incumbents had no attack tweets.

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