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Coherent campaigns? Campaign broadcast and social messaging

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Abstract

Purpose – Despite the growing use of social media by politicians, especially during election campaigns, research on the integration of these media into broader campaign communication strategies remains rare. The purpose of this paper is to ask what the consequences of the transition to social media may be, specifically considering how Senate candidates' use of a popular social network, Twitter, is related to their messaging via broadcast media in the form of campaign advertising, in terms of content and tone.

Design/methodology/approach – To address this research question, a unique data set combining every tweet (10,303) and every television ad aired (576,933 ad airings) by candidate campaigns for the US Senate during the 2010 campaign is created. Using these data, tweets and ads are analyzed for their references to issues as well as their overall tone.

Findings – Findings demonstrate that social messaging often resembles broadcast advertising, but that Twitter nonetheless occupies a unique place in modern campaigns in that its tone tends to be quite different than that of advertisements.

Research limitations/implications – This sheds light on a larger debate about whether online campaigning has produced a fundamental change in election practices or whether new media simply extend "campaigning as usual."

Originality/value – This study uses a novel data set, encompassing the complete universe of ads and tweets distributed by candidates for Senate in 2010.

Keywords Twitter, Social media, Campaign advertising, US elections, US Senate

Paper type Research paper

Although political pundits espouse the game-changing nature of social media for politics, research on how campaigns are integrating these media into their broader communication strategies and how they compare with more traditional media outreach is rare. Nonetheless, candidates' increasing adoption of social media suggests they see

value in employing these communication tools. Among the available social media platforms, Twitter has gained particularly wide use among candidates, with near-universal adoption among those running for Senate, House, and Governor in 2010 (Bode and Dalrymple, 2016).

Yet much about the specifics of Twitter use remains unclear. Research about campaign communication more broadly is based on data drawn from traditional communication networks that rely on potentially expensive, frequently mediated forms of mass messaging (Franz *et al.*, 2007). By contrast, social media platforms such as Twitter offer new, inexpensive, and substantively different tools for candidates.

This project therefore explores how Senate campaigns have begun to integrate Twitter into existing messaging strategies, which generally rely heavily on television advertising. It considers whether campaigns have used Twitter as a complement to traditional means of communication, a surrogate for them, or a way to speak to a different audience. Understanding how politicians use Twitter as compared to older forms of communication is important for understanding the full campaign repertoire used by candidates, and the types of messages to which citizens are exposed. This research also engages a larger debate about whether the movement of electoral politics online has engendered fundamental change in the conduct of campaigns, or simply extends "campaigning as usual" (Bimber and Davis, 2003; Xenos and Foot, 2005).

In particular, the current study asks how candidates' use of Twitter is related to their use of broadcast advertising both in terms of both content and tone, employing a unique data set combining every tweet posted and every television ad aired by campaigns for the US Senate during the 2010 campaign. Thus, it is able to speak to whether the tone and topic of campaigns' Twitter messaging occupies a unique place in modern campaigns distinct from that of television advertisements. This has meaningful implications for understanding the role of social media in modern political campaigns, and resulting differences in what type of information voters receive from different media.

How political campaigns use Twitter

Campaigns are increasingly making strategic use of social media in order to gain attention both from the news media (Parmalee, 2014) and from voters (Serazio, 2014). Scholarship on the use of Twitter by political campaigns is large and growing (see Jungherr, 2016 for an overview), addressing a broad range of topics about the structure of Twitter as a communication network (Bruns and Highfield, 2013; Conway *et al.*, 2013), how users discuss politics in the space (Bode *et al.*, 2015; Lin *et al.*, 2014), and the extent to which Twitter data can be used as a proxy for public opinion (DiGrazia *et al.*, 2013).

Perhaps most relevant, a growing number of studies have explicitly considered the nature of congressional elites' tweet behavior. These efforts have included examinations of member adoption and frequency of Twitter activity (Evans *et al.*, 2014; Nagler and Tucker, 2015), member/constituent revealed policy preferences on Twitter and their implications for representation (Barbera, 2015), and the effect of member tweets on electoral outcomes (Murthy, 2015). While some candidates for Congress began using Twitter earlier, the 2010 election was the first cycle in which the large majority of members had and used Twitter accounts (Bode and Dalrymple, 2016), offering an important opportunity to examine emergent congressional communication activities.

Existing studies tend to focus exclusively on Twitter, however, only rarely considering the platform's place in broader political campaign efforts. The literature to date has also been largely observational and inductive, commenting on the contours of

political tweeting without connecting the behavior to existing strategies of candidates' campaign communications. Further, many rely on machine coding, limiting the type and nature of concepts they can consider, especially in terms of issue content (Conway *et al.*, 2013; Gainous and Wagner, 2013). By contrast, this study uses a large, hand-coded data set to explicitly and directly compare the frequency, tone, and content of Twitter messages with a known entity in campaign communication: broadcast political advertising.

Thinking about traditional and new media

There are at least three reasons to compare tweets to ads. First, television advertising has long been considered one of the most important channels through which campaigns communicate with voters, signaled in part by the amount of money candidates spend on it – an estimated $1.4 billion by Senate, House, and gubernatorial campaigns in 2014 (Fowler and Ridout, 2014).

Second, more is known about broadcast advertising than essentially any other element of campaign communication, with the literature on broadcast advertising dwarfing the literature on online ads (Kaid, 2002; Ridout *et al.*, 2015), political websites (Druckman *et al.*, 2009), or press releases (Miller *et al.*, 1998). As a result, hypotheses and findings can be better motivated and more informative than they would be if one were to compare to other media.

Third, both television advertisements and tweets occur in discrete units, often multiple times per day. This allows more consistent comparison across time and content as compared to more static communication efforts like campaign websites or ground game.

Twitter may be part of an integrated media strategy, in which case campaigns' use of Twitter might be expected to follow familiar patterns seen with political advertising, including avoidance of negativity, message control, and voter outreach. Yet consider four key ways in which Twitter and television advertising differ.

First, Twitter is less costly than television. Using Twitter is virtually costless, though a campaign may need to employ someone to use the medium effectively. Political advertising, on the other hand, is quite expensive to distribute, sometimes making ads cost-prohibitive, especially for many challengers.

Another difference is speed of production. Tweets can be formulated and distributed instantaneously whereas political ads typically take at least a few days to produce and distribute. As a consequence, Twitter can be used more reactively, responsively, and rapidly than political ads.

A third difference is the potential audience of each medium. The direct audience for a tweet consists of only those who have previously agreed to follow a particular candidate, a group shown to be particularly politically attentive and supportive of the candidate (Bode and Dalrymple, 2016). However, tweets are sometimes disseminated far beyond their original direct audience (the member's "followers"), and politicians have also been successful using online media to generate free attention from traditional media (Kreiss, 2016; Lipinski and Neddenriep, 2004), which is highly attentive to Twitter (Arceneaux and Weiss, 2010).

By contrast, political advertising is initially transmitted to a more diverse, mass audience. Broadcast television advertising is still often aired during local news broadcasts (Fowler and Ridout 2012; Ridout *et al.*, 2012), whose audiences tend to be composed of people who are likely voters but are not strong partisans (Ridout *et al.*, 2012). In other words, the audience for television spots is more likely to be made up of

persuadable voters (Lovett and Peress, 2010), and almost certainly less politically attentive than the hyper-political Twitter audience. As such, one might expect different strategies employed between these media, with the content of Twitter posts designed more to speak to existing supporters (Kreiss, 2016).

Finally, Twitter and television advertising differ in form. While candidates may tweet as often as they like, any individual tweet is limited to 140 characters – much less content than a 30 second television spot. In addition, Twitter largely relies on static text (though links, photos, and video are sometimes included) whereas ads always use dynamic video.

In the remainder of this article, each of these differences is used to situate Twitter in the modern campaign communication environment and identify expectations for the content of tweets and ads.

Questions relating Twitter to broadcast political advertising

Both the volume and tone of political advertising vary across race, sponsor, and over the course of a campaign. Candidates with more resources tend to spend more on ads, with the volume of ads ramping up throughout the campaign and peaking near election day as candidates try to get out the vote (Goldstein and Freedman, 2002). Presidential candidates tweeting during the primary season, in contrast, tweet less as the primary season continues (Conway *et al.*, 2013). Conflicting expectations encourage us to ask:

RQ1. How does the volume of tweets change over the course of the campaign?

Additionally, well-funded candidates are more likely to employ political advertising because they can afford it (Goldstein and Freedman, 2000). At first blush, it seems that Twitter use may not be as dependent on the financial resources of the candidate, as a generally low-cost alternative to broadcast advertising. However, Twitter remained a relatively new technology in 2010, perhaps leaving only well-funded candidates willing or able to experiment with social media. This leads us to propose a second research question:

RQ2. How do campaign resources relate to Twitter volume?

The volume of political advertising is much higher in competitive races (Goldstein and Freedman, 2002; Shaw, 2006), thanks, in part, to the greater necessity to speak to voters. The rate of Twitter adoption also increases for candidates in competitive elections (Evans *et al.*, 2014), and challengers tweet more than incumbents (Gainous and Wagner, 2014), but for a sample of members of Congress, competitiveness was unrelated to Twitter use (Peterson, 2012). This leads us to ask:

RQ3. How does Twitter volume relate to race competitiveness?

Understanding the contours of ad negativity, however, is more complicated than sheer volume. Positive messages, often found in biographical ads, are designed to build trust between the candidate and the public. As a result, many candidates use positive ads early in a race, but later go on the attack, with negative advertising ramping up over the course of the election campaign (Damore, 2002; Goldstein and Freedman, 2002).

Negative campaigning is also more common in more competitive races, since attacking an opponent can be risky, fostering voter backlash (Goldstein and Freedman, 2002; Theilmann and Wilhite, 1998). Therefore it only makes sense to go on the attack when the stakes are high (though see Herrnson and Lucas, 2006; Lau and Pomper, 2004).

Although expectations in this area are more straightforward, for consistency we again pose a research question:

RQ4. How does competitiveness relate to tweet tone?

The willingness of a candidate to go on the attack may also depend on the candidate's standing, with challengers more likely to go negative (Benoit, 1999; Djupe and Peterson, 2002; Sigelman and Buell, 2003). One study, though employing a non-traditional measure of attacks, found a similar pattern with tweeting: House challengers in 2012 were more likely to go on the attack on Twitter (Evans *et al.*, 2014). For this reason we ask:

RQ5. Do challengers tweet more negatively than incumbents?

Although Twitter tone and ad tone may be driven by similar factors, there are competing expectations about which one will be more negative. If Twitter is just another medium that helps promote a coherent campaign message, then tweets should be similar in tone to political advertising. A second possibility, however, is that tweets will be more negative, as the hyper-political audience would likely appreciate partisan broadsides more than would a less politically homogeneous audience, such as those exposed to television ads aired during news programing, talk shows, and game shows. Gainous and Wagner (2014) find that opponent's names are one of the most common keywords to appear in tweets, suggesting a negative bent. A final possibility is that Twitter may actually be more positive than political advertising because Twitter followers are likely existing supporters, which means that messages should consist of less persuasion and more get-out-the-vote appeals and requests for donations, all likely positive in tone. Given these competing expectations, this study asks:

RQ6. How are tweet and ad negativity related?

Finally, two possibilities exist regarding the content expressed in members' tweets and broadcast ads. First, campaigns may pursue a single coherent message strategy, woven throughout all of the media they employ. This would suggest that issue mentions between tweets and ads would be relatively highly correlated. Alternatively, given how quickly a message can be generated over Twitter, such messages may be more reactive or responsive to the issues of the day than political advertising, which is likely to focus on standard policy issues (the economy, jobs, foreign policy). Moreover, because tweets are likely directed to base voters, messages may be focussed on encouraging people to vote, get involved, or donate money – issue content-free requests for action that are typically absent from television ads. Finally, due to the space constraints imposed by Twitter, one might expect fewer issues discussed on Twitter in general. It is simply more difficult to discuss complicated policy in 140 characters than in 30 or 60 seconds. With these conflicting expectations, we ask:

RQ7. How are issue mentions related between Twitter and advertisements?

Methods and data
In order to compare campaign advertising to campaign tweeting, a content analysis of the universe of each medium is employed. The data on campaign tweeting behavior was generated by the Wisconsin Social Media and Democracy (SMAD) Project. To generate the SMAD data, researchers compiled a list of all major-party political candidates running for the US Senate in the 2010 midterm elections (77 candidates in 37 races), and then restricted this sample to only those candidates who had active

Twitter accounts that could be verified from some objective source (usually the candidate's own website, but also publicly available lists)[1]. This resulted in a sample of 73 candidates for Senate in 37 races. Over the course of the 2010 election, the universe of all 10,303 tweets posted by accounts associated with these Senate candidates was archived. The unit of observation is a single tweet. Candidates ranged in tweet frequency from 0 per day to a high of 76 (mean = 4.15, SD = 5.07).

These data were paired with Wesleyan Media Project data on 961 unique ads aired on television 576,933 times by these same candidates during the course of the campaign. The unit of observation for these data is the ad airing. Candidates ranged in airing frequency from 0 to 878 per day (mean = 143.39, SD = 125.93)[2].

In addition, standard variables (see for instance Damore, 2002) related to the race context (competitiveness – CQ competitiveness ratings; 1 = least competitive and 4 indicates most, presence of an incumbent) and candidate characteristics (birth year, party – Republican is higher, gender – female is higher) were compiled from campaign records, and campaign finance data were obtained from the Federal Election Commission.

Analysis

Analysis first tested whether campaign tweets, like broadcast advertising, would increase over the course of the election. As can be seen in Figure 1, tweets generally increase over the election period ($r = 0.17$, $p < 0.01$), as do ads ($r = 0.23$, $p < 0.01$). Ads reach their peak a couple of weeks before the election, and remain high until election day, and tweets likewise peak in mid-October, but drop off a bit as election day nears, answering the first research question[3]. This final drop off may be related to the adoption of a new medium. As a campaign attends to many things as election day approaches, use of a new and untested platform may be neglected.

An additional test considers whether overall volume of tweets was related to several important variables, most notably campaign resources (*RQ2*) and competitiveness (*RQ3*). This analysis estimates a negative binomial model (appropriate for count
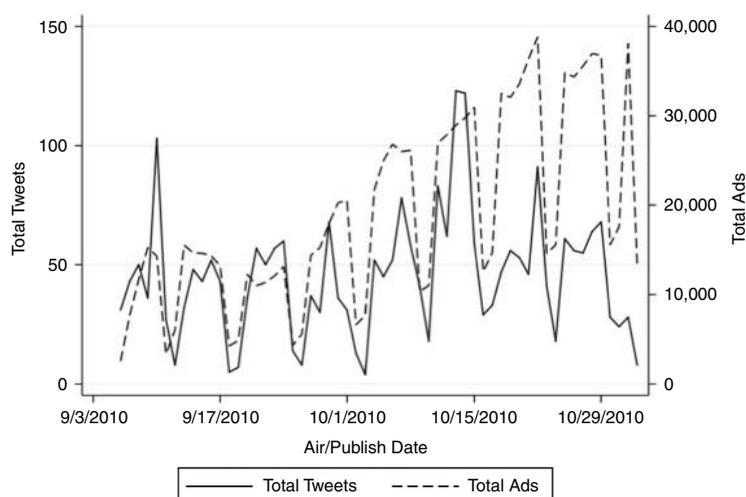

Figure 1.
Total ads and total
tweets by day

Notes: Tweet correlation with time = 0.17. Ad correlation with time = 0.23

dependent variables, see Kennedy, 2003) predicting volume of tweets by candidate by day, with standard errors clustered by candidate to account for non-independence of observations[4].

As seen in Table I, the model suggests a positive relationship between campaign resources and tweet volume, though it does not quite reach traditional levels of significance ($p < 0.08$). This implies that more financially secure candidates are more likely to tweet, despite the idea that cash-strapped underdogs should not be constrained from tweeting. However, there is no observable relationship between competitiveness or challenger status and a candidate's tendency to tweet.

Interestingly, though, the volume of ads is a significant predictor of volume of tweets on any given day. This may be due to surges of campaign messaging, suggesting that candidates are using Twitter in a similar way to more traditional campaign outreach. This could also reflect the underlying tendency of increasing volume over the course of the campaign for both tweets and ads, as demonstrated in Figure 1. This is reinforced by the findings that as the election approaches tweet volume increases, and offers further insight into the first research question posed.

Issues
An additional area of interest examined how tweets and advertising are related in terms of the issues highlighted by campaigns but had competing expectations as to how they might compare. Descriptive statistics of issue mentions are included in Table II. While only 5.9 percent of ad airings have absolutely no issue content, 54.2 percent of tweets have no issue content, suggesting that issue mentions are much less prevalent on Twitter.

	Coefficient	SE	p value
Total ads (logged)	0.11	0.04	0.02*
Republican	−0.22	0.21	0.30
Birth year	−0.02	0.02	0.34
Female	0.62	0.23	0.01*
Competitiveness	0.17	0.15	0.28
Resources	0.13	0.07	0.08
Incumbent	−0.12	0.41	0.78
Terms served	−0.13	0.18	0.45
Election days	0.02	0.01	0.01*

Table I.
Negative binomial model predicting tweet volume

Notes: Standard errors are clustered by candidate (63 candidates). *Significant at $p < 0.05$

	Twitter				Ads			
	Min	Max	Mean	SD	Min	Max	Mean	SD
Economic	0	44	0.54	1.62	0	1,855	233.38	287.48
Social issues	0	6	0.06	0.31	0	458	12.4	43.38
Law and order	0	4	0.02	0.19	0	255	2.9	17.95
Environment/energy	0	6	0.06	0.34	0	508	17.48	51.23
Social welfare	0	12	0.18	0.70	0	1,122	64.05	125.12
Foreign policy	0	22	0.11	0.64	0	828	21.02	66.92
Other	0	6	0.12	0.46	0	674	55.49	89.85

Table II.
Descriptive statistics: issue content

For each issue category, the correlation between mentions of an issue on Twitter and mentions of it in television advertising was also estimated. Results suggest that campaigns are much less coordinated in terms of issues than might have been expected from a coherent campaign strategy approach. Correlations are quite low, reaching only as high as 0.13 for social welfare issues (this includes health care, which might explain why it is higher than other issues, given that health care was a major issue in the 2010 election), and reaching significance in only three (law and order, environment/energy, and social welfare) of six cases. This suggests that campaigns advocate different issues in the different media they employ.

Finally, a series of models predicting the volume of tweets about several issue areas, including economic issues, social issues, law and order issues, environmental issues, social welfare issues, and foreign affairs were estimated, including controls for total tweets (logged), incumbency, age, time in Congress, party, and candidate gender, in addition to the variable of interest, which was the number of ads aired on the same issue subject. Results may be found in Table III.

The story is somewhat mixed. In each case, greater total volume of tweets makes it more likely that any given issue will be tweeted about. This makes sense – more tweets give more opportunities for issue mentions – but the consistency is surprising, since even infrequent tweeters might be expected to have a "pet" issue. In only one of the six issue areas – social welfare issues, which also showed the strongest correlation – does volume of tweets relate to volume of ads within that issue area[5]. This overall lack of connection again suggests that campaigns use different media for different purposes. Thus, there is not a clear pattern of communication coordination across broadcast and social media. For any given issue subject, a campaign may coordinate messages across media (as seen for social welfare), but it is more likely that no particular relationship is observed (*RQ7*).

Tone
Finally *RQ6* asked whether the tone of a campaign's tweets would match the tone of its advertising, considered alongside the effects of competitiveness (*RQ4*) and incumbency

| Control variable | Topic of candidate Twitter post | | | | | |
	Economic issues	General social issues	Social welfare issues	Legal issues	Environment issues	Foreign policy
Total tweets (logged)	1.19 (0.09)*	1.51 (0.39)*	1.04 (0.12)*	2.59 (1.14)*	1.49 (0.20)*	0.94 (0.24)*
Related ads aired (logged)	0.02 (0.05)	0.03 (0.24)	0.26 (0.08)*	−0.04 (0.16)	0.10 (0.13)	0.17 (0.14)
Republican	0.15 (0.17)	−2.90 (1.35)*	−0.72 (0.31)*	−15.02 (1.19)*	0.59 (0.59)	−0.35 (0.55)
Birth year	0.01 (0.01)	−0.01 (0.04)	−0.01 (0.02)	−0.19 (0.07)*	−0.03 (0.04)	0.01 (0.03)
Terms served	0.06 (0.06)	−0.06 (0.18)	0.12 (0.07)	−1.97 (0.83)*	0.09 (0.27)	0.21 (0.15)
Female	−0.01 (0.16)	−0.74 (0.75)	−0.07 (0.31)	−11.94 (2.66)*	−0.36 (0.48)	0.56 (0.55)
Competitiveness	−0.04 (0.08)	−0.84 (0.48)	−0.15 (0.14)	−	−0.63 (0.34)	0.16 (0.33)
Election days	−0.02 (0.01)*	0.01 (0.02)	−0.03 (0.01)*	−0.09 (0.05)	−0.04 (0.01)*	−0.03 (0.02)
Constant	−5.82 (17.68)	21.14 (81.29)	−1.44 (34.06)	394.74 (130.09)	56.87 (82.12)	−26.49 (58.02)
n	1,564	287	915	83	435	346
n candidates	58	22	43	5	28	20

Notes: Standard errors clustered by candidate are reported in parentheses. *$p < 0.05$

Table III.
Negative binomial models predicting issue content of candidate Twitter posts

(*RQ5*). To examine these questions, ads and tweets were separated into three categories: contrast, in which candidates compare themselves to their opponent; promotional, in which candidates paint themselves in a positive light; and attack, in which candidates point out flaws of or misdoings by their opponents (with each type summed by day for each candidate). There are relatively dramatic differences between television advertisements and campaign tweets: while the advertisements are relatively evenly divided between the three types of ads (42 percent promotional, 35 percent attack, 23 percent contrast), tweets are overwhelmingly positive (81 percent), with only a relatively small number of negative tweets (15 percent) and even fewer contrast tweets (4 percent). This is likely due partially to the 140-character limit imposed by Twitter, which makes clear contrasts between candidates difficult.

A basic test of whether the tone of tweets tends to imitate that of ads is a simple correlation. Both negative tweets and ads and positive tweets and ads are significantly correlated ($p < 0.01$), while contrast ads and tweets are not. This insignificant finding is likely driven by the extremely low number of contrast tweets.

To expand on this, an ordinary least squares model predicting the percent of tweets which were negative, positive, and contrast was estimated. As can be seen from Table IV, the most important predictor of the percentage of negative tweets is the percentage of negative ads. This suggests that once a candidate decides to "go negative," the strategy is pursued across all media.

Additionally, while incumbency and competitiveness were expected to play a role in the decision to go negative on Twitter, neither appears to do so (*RQ4* and *RQ5*). This finding contradicts traditional understandings of campaigns (Benoit, 1999; Sigelman and Buell, 2003), which suggest that those with more ground to gain (challengers and those in competitive races) are more likely to take the risk of going negative. Still, the lack of a relationship between incumbency and competitiveness, on the one hand, and negativity on Twitter, on the other, may be due to the inclusion of percent negativity on television as a predictor in the model, which may already account for the influence of incumbency and competitiveness. Indeed, when the model was reestimated, excluding percentage of negative ads, the expected relationship reappeared (this model is available upon request).

	Negative	Positive	Contrast
% similar tone ads	0.15 (0.03)*	0.15 (0.03)*	0.12 (0.13)
Total tweets (log)	0.04 (0.01)*	−0.05 (0.02)*	0.01 (0.01)
Election days	−0.01 (0.01)	0.01 (0.01)	−0.01 (0.01)*
Incumbent	−0.09 (0.05)	0.07 (0.05)	0.01 (0.02)
Terms served	0.04 (0.03)	−0.04 (0.04)	−0.01 (0.01)
Competitiveness	0.02 (0.02)	−0.01 (0.03)	−0.01 (0.01)
Republican	−0.01 (0.03)	0.04 (0.03)	−0.02 (0.01)
Female	0.02 (0.04)	−0.02 (0.05)	0.01 (0.01)
Resources	0.01 (0.01)	0.01 (0.01)	−0.01 (0.01)
Birth year	−0.01 (0.01)	0.01 (0.01)	−0.01 (0.01)
Constant	1.33 (3.12)	−1.19 (3.83)	1.21 (1.22)
n	1,607	1,641	1,641
Candidates	58	59	59
Notes: Standard errors clustered by candidate are included in parentheses. *Significant at $p < 0.05$			

Table IV.
OLS model predicting percentage of negative tweets

The overall volume of tweets is also positively related to the percentage of negative tweets, suggesting that the more prolific tweeters are also more likely to include negative tweets. Analysis of positive and contrast tweets lends some further insight into the negative tweets relationships. As can be seen in Table IV, positive tweets, like negative tweets, are related to overall tweet volume – but positive tweets are inversely related. This suggests that increased negativity with increased volume is partially a function of decreased positive tweets.

Finally, while positive and negative tweets do not seem to increase or decrease monotonically over time, when considering contrast tweets time is negatively related – as the election approaches campaign tweets are less likely to feature contrasts with an opponent.

Discussion and conclusions

This study is an important step in understanding how new media are used by modern political campaigns. Although the research considers only candidates for the US Senate in a single election cycle, it provides valuable insight into the emergence of campaigns' social media practices, as well as candidates' ability to adopt and adapt to new media environments.

Findings indicate that patterns of Twitter use by campaigns do not merely imitate or replicate how television advertising is used. The volume of Twitter use does not have a linear relationship with the increase in television ads, nor is there consistency in issue emphasis. Moreover, Twitter is not only utilized by resource-heavy candidates, but also by those with less cash. Twitter may therefore have an influence on campaign discourse broadly construed as it empowers challengers and minor party candidates, unlike most other communication technologies. Perhaps the most striking evidence of this lies in the persistently positive tone candidates adopted on Twitter. Unlike with television advertising, tweet tone does not become more negative over the course of the campaign and is not clearly related to classic indicators of going negative, such as competitiveness or incumbency.

All these findings indicate that Twitter provides a forum in which candidates can more flexibly address issues of the day, respond to news and media accounts, and update supporters and followers on campaign activities. The introduction of a new medium such as Twitter into electoral politics harkens the evolving nature and growing volume of modern political campaigns (Stromer-Galley, 2014), and suggests that at least during the relatively early stages of adoption, Twitter has not simply extended "campaigning as usual" (Bimber and Davis, 2003; Xenos and Foot, 2005). Unlike traditional campaign efforts to heavily utilize television ads, direct mail, and telemarketing in highly targeted efforts to influence swing-state voters, Twitter presents a rare opportunity to expand and diversify political speech across the board. Buoyed by its essential costlessness, candidates of all stripes, including those who may not be heard in traditional media, are able to engage the public, unconstrained by many traditional campaign factors.

Results also point to an important fact regarding the use of campaign strategies: audiences matter. The audience for campaign ads, for example, tends to be "persuadables," in the sense that ads are designed to move vote choice above all else (Franz *et al.*, 2007; Ridout *et al.*, 2012). This stands in contrast to social media, which are more likely targeted at engaged partisans (Bode and Dalrymple, 2016).

The 140-character limit for tweets reinforces this; a reminder to vote or participate can be simply conveyed, while a complicated policy claim with the goal of persuasion can at best be linked to in a tweet. The results of this analysis emphasize these divergent audiences and different media constraints. Campaign ads increase in number and negativity as the election draws near so as to make last-minute appeals for votes, while tweets appear to follow this pattern in terms of volume, yet do not become more negative. The divergence in issue mentions is also suggestive – what persuades weak partisans may not mobilize engaged supporters.

And yet there also appears to be some overlap in the strategic use of Twitter and advertising. As the results in Table IV suggest, attack messages seem to be coordinated across the two platforms. Just because engaged supporters receive disproportionate levels of promotional tweets does not mean that these voters scorn negativity. While there is evidence that negativity in campaigns can lead to backlash (Lau *et al.*, 2007), this is not a deterministic result, and clearly candidates continue to believe that negativity can change votes (made clear by their continued reliance on negative ads, see Fowler and Ridout, 2012; Wesleyan Media Project, 2014). At the end of the day, findings suggest that campaigns often have different audiences and goals in mind when using television advertising and Twitter, which affects how each medium is used.

It is also worth noting that this study reports on a single election, when Twitter was just becoming a ubiquitous tool for congressional campaigns. Given the unique nature of 2010 in terms of electoral context (Bode *et al.*, 2015), and the infancy of Twitter within that election cycle, it is possible – and indeed likely – that the role of Twitter will change as the medium and campaigns continue to evolve, and future research should continue to emphasize these questions. Moreover, ads are also changing, as more people become "cord-cutters" (Horrigan and Duggan, 2015) and campaigns increasingly move advertisements online. The relationship between new media and old, therefore, is increasingly blurry. Additionally, this study focusses only on tweets and ads generated by campaigns themselves, rather than those delivered by surrogates on a candidate's behalf. Since we know that negative advertisements are often taken on by political action committees or other surrogates (Kaid and Johnston, 1991), it is possible that we are missing one important element of the message strategy that campaigns employ by neglecting to include tweets and ads produced by those outside the campaign. We also view this through an aggregate, national lens, and thus lose something of the nuance that may occur in individual contests or states. This is an area we encourage others to pursue, perhaps best explored through individual campaign case studies. Finally, we fail to account for issue salience, which has been shown to have a significant effect on issue congruence (Lax and Phillips, 2009). Future research should consider the impact of issue salience on convergence of strategy between communication media.

This study further suggests that Twitter use is not necessarily constrained by or predetermined by broader campaign message strategy, but can be easily adapted to the real-time flow of information, especially the public and media agendas. Twitter as a real-time, direct communication medium is, by nature, more able to respond to salient issues on a daily basis. Perhaps this implies that the adoption of real-time direct communication technologies will push modern political campaign practices toward greater fluidity. These changing dynamics among campaigns, the news media, and the

public agenda, at the very least, deserves more attention. This also has implications for the type of political information citizens obtain online. While traditional political ads play a role in political education, Twitter seems to include less issue-related information, which may mean that those using Twitter learn different things about campaigns, and receive different types of mobilizing calls to action than those relying on traditional ads. This suggests a need to focus on user outcomes in addition to content exploration.

Overall, this research highlights the importance of continuing to study Twitter as a campaign tool specifically, and social media as a political tool more generally. Clearly, candidates for the US Senate expanded their repertoire of campaign communication practices to make differential use of social and broadcast media outlets, and will likely continue to hone their abilities to do so moving forward.

Notes

1. The Senate was chosen because candidates for the Senate tend to have more resources, allowing us to draw more realistically on research which has mostly existed at the presidential level to date. The limited number of candidates also makes this a more manageable project. A midterm election allows the focus to be on congressional contests rather than presidential. Finally, only major-party candidates are considered, in line with previous research.

2. Coders working for WMP coded each ad for tone ("In your judgment, is the primary purpose of the ad to promote a specific candidate, attack a candidate, or contrast the candidates?," κ intercoder reliability statistic $= 0.82$) and issue content (61 different issues grouped into six broader issue categories, including economic issues, social issues, law and order, environment and energy, social welfare, and foreign affairs; see http://mediaproject. wesleyan.edu/dataaccess/for details). SMAD coders used a similar coding scheme to identify issues referenced (average $\kappa = 0.76$) and the overall tone of each tweet ($\kappa = 0.64$). While still acceptable, the κ value for tweet tone is somewhat low, and lower compared to that of ads. This reflects the difficulty of coding sentiment when content is limited to 140 characters. To offer more context on what tweets of different tones look like, we chose an exemplar of each kind from the Harry Reid campaign for senate in Nevada. An example of a positive tweet: "Reid-led bill to create jobs, cut taxes for small business advances in senate http://bit. ly/cQdaXO#nvsen." An example of a negative tweet: Sharron Angle Flat Out Lies to Hispanic Teens, Then Lies About Lying to Hispanic Teens. Seriously. http://bit.ly/9FyYof." And an example of a contrast tweet: "Reid schedules vote on \$250 COLA check for seniors and vets, Angle still wants to kill Social Security http://bit.ly/cAVY39#nvsen."

3. The sharp peaks and valleys seen in Figure 1 represent weekly cycles – in general few ads are aired on the weekend (see Freedman and Goldstein, 1999).

4. The ads variable is logged because of the expectation of diminishing marginal returns to scale aired on the weekend (see Freedman and Goldstein, 1999).tly existed at the presidential level to date. The limited number of candidates hen it is large. This will be true for total volume of tweets as an independent variable as well.

5. We also estimated these models while separating time into early (September) and late (October/November), in order to see whether campaign strategy starts off united between media and diverges later. For legal issues and social welfare issues, there is a positive relationship between tweets and ads in the earlier period. For foreign policy, however, the relationship is negative, and for all remaining issue areas there were no significant relationships in either the early or late campaign periods. Full model results available upon request.

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