

# Twitter: The Electoral Connection?

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**Abstract:** The rapid rise of Twitter and other social media tools has enticed a large number of members of Congress to adopt these services themselves. Such waves of technological adoption are comparatively rare in Congressional history, leaving us with little knowledge about why some members of Congress adopt new technologies while others do not. We find that Twitter adoption is relatively difficult to predict. Members are more likely to adopt Twitter if their party leaders urge them to, if they are young, or if they serve in the Senate. Surprisingly, we find that electoral vulnerability has little or no effect on Twitter adoption or use.

When Nancy Pelosi's gavel sounded the beginning of the summer recess just before noon on August 1, 2008, a contentious bill to expand offshore oil exploration lay unaddressed on the House docket. The vast majority of House members quickly left the capitol, looking for planes back to their districts. A handful of members, however, did not (Bresnahan 2008). This group, comprised almost entirely of members of the Republican minority,<sup>1</sup> was concerned that the energy legislation had not been voted on and would therefore lie dormant for weeks until Congress reconvened. Group members quickly found themselves alone in a dimly lit chamber as capitol security began to shut down House lights, television cameras, and microphones. Shouting in order to be heard by the few straggling viewers and journalists in the galleries, the remaining Republicans demanded that Democrats return for a vote on the energy legislation. In short course members were also giving unplanned policy speeches and joining in renditions of "God Bless America" without C-SPAN documentation (O'Connor 2008).

Perhaps more importantly, however, the protesting House members also personally publicized their efforts via text message, streaming video from personal cell phone cameras, and posts to their individual Twitter accounts (Stelter 2008). Many of the tweets circulated either the existence of the "phantom session," as John Shimkus labeled it, or the progression of speakers proclaiming "Shame! Shame!" on Pelosi and House Democrats. Some members, however, also specifically discussed their use of new media during the effort. John Culberson repeatedly tweeted both that he was "Qikking live" (posting multimedia of the event online) and that "Twitter posts have been a big part of driving" news about the Republican effort.

No matter the ultimate policy or political implications of this event, it signifies that members of Congress have begun to embrace and personally use digital technology such as cell phones, streaming online multimedia, and social networking tools. The significance of such an

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<sup>1</sup> Initially, one Democrat—Dennis Kucinich—had remained behind to watch, but he left shortly thereafter.

episode should not be overlooked in a slow-to-evolve institution where less than 15 years ago, Pat Leahy quipped that many members of Congress “wouldn’t even know how to turn on a computer if they had to. They think it’s a not working television [sic] that won’t give you CNN” (Johnson 2004, 98). Even beyond the technical proficiency and comfort evident in this episode, however, it also indicates that at least some members of Congress are beginning to appreciate the potential power of current social media technology. In this case it may be said that the lawmakers used such technology to go “viral” themselves.

Consider specifically the members’ use of Twitter. First created in 2006, the fast-growing service is part blogging platform, part social networking site. The service has become a favorite topic of many in the media and many pundits have made sweeping claims about the current and future influence of Twitter. Pundits and politicians alike have suggested that Twitter and other social media will play a major role in all future campaigns (Croal 2009; Gonyea 2009; Hansen 2009; Makice 2009; Rhoads 2009; Smith 2010; Woodard 2009; ).

Yet despite the supportive rhetoric from both sides, little formal research exists on how and why members of Congress use Twitter. Since its launch in 2006, nearly 200 members of Congress have created Twitter accounts. Collectively, they produce more than 100 tweets each day, often on politically relevant topics.<sup>2</sup> In this paper, we seek to understand why some members of Congress have begun using Twitter while others have not. In general, we would expect electoral goals to motivate Twitter adoption. At the same time, however, we also expect member and district factors to play a role. In the end, we find that patterns of Twitter adoption

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<sup>2</sup> Indeed, some lawmakers have posted tweets that were likely more interesting than they desired. The reputation and electoral prospects of some elected officials have been significantly damaged by careless use of Twitter, such as Sarah Palin’s tweet about “death panels” or Chuck Grassley’s curious assertion that “we still on skedul/even workinWKEND” (see Graham 2009).

are strongly influenced by partisanship, chamber, and member age. Other variables have surprisingly weak effects.

## **Theory**

Although there is little research dealing directly with Congressional use of Twitter, there is a large literature on patterns of member-constituent communication more broadly. The difficulty with this broader literature lies in identifying which of the traditional means of communication is most analogous to Twitter. For example, many studies consider the nature and effect of “mediated messages”—that is, messages from members that are filtered through another source before reaching the public. Mediated messages are most often disseminated through television news programming either through press releases, news stories, or interviews. When a member engages in this type of communication, he or she surrenders a large amount of control over the timing, context (Patterson and McClure 1976; Robinson and Sheehan 1983; and Steger, Kelly, and Wrighton 2006), and even ultimate content of the message he or she portrays to constituents (Levy and Squire 2000; Flowers, Haynes, and Crespian 2003; Sinclair 1990). At the same time, members may often gain a much wider audience through mediated messages than what they can reach directly (Ridout and Smith 2008; Wagner 1983) and therefore willingly relinquish some control over their words. Ultimately, however, even when members of Congress desire to use mediated messages, Vinson (2003), Lipinski (2004), and others find that both national and local media outlets often will not surrender airtime to cover them.

Members seeking an alternative to mediated communication with their constituents may contact them directly. Traditionally, these messages have often either been costly or limited in distribution. Television advertising, for example, has wide reach but can be prohibitively expensive. Evidence suggests that, when used, candidate advertising can educate an electorate

(Ridout, Shah, Goldstein, and Franz 2004; Zhao and Chaffee 1995), persuade them to vote a certain way (Huber and Arceneaux 2007; Franz and Ridout 2008), and affect who votes (Ansolabehere, Iyengar, Simon, and Valentino 1994). Still, the high cost of television advertising often leads members to use it only during campaign season, if at all.

Members also view their personal time in their districts as an important communication activity (Fenno 1978; Hall and Wayman 1990). Such face time is particularly important for challengers (Kenny and McBurnett 1997), but also helps current members develop strong personal reputations and, ultimately, support among constituents (Rivers and Fiorina 1991). While the literature consistently promotes the benefits a member may reap by personally meeting with constituents, doing so is a time-intensive process that usually requires members to step away from their work in Washington and travel back to their districts. Because of these constraints, members can meet with only a relatively small number of individuals in this manner each year.

A popular fourth option, however, which circumvents the high cost of television advertising while still reaching a broad audience with an unfiltered message, is member use of free constituent mailings provided under the franking privilege. Because franked mail is free and unmediated, member use of it is, in some respects, most directly comparable with Congressional use of Twitter. Strong evidence suggests that franked mail is used most often by members of Congress who are either new to the institution or who are in highly competitive districts (Cover 1980; DeMeter 1973; Davis 2000). Members appear to rely most on direct communication with their districts when their electoral position is most unsure and their need to strengthen constituent ties is greatest. Examinations of the type of content distributed through franked mail indicate that shoring up electoral support is indeed most often one of the primary goals of member use of

franked mail (Lipinski 2004; Lariscy and Tinkham 1996; Dolan and Kropf 2004). Cover and Brumberg (1982) show that this is an intelligent choice; they present data suggesting that official postal communications from members often do effectively communicate both personal and policy information.

In this manner, franked mailings—and, by extension, direct communications in general—offer members a ready and effective opportunity to preserve and expand their support base within the district. To ensure reelection, members of Congress consistently work to minimize the appearance of personal ideological differences with their district (Adams and Merrill 2003, Ansolabehere, Snyder, and Stewart 2001). Candidates are highly mindful of the ideological profile they present during elections and strive to monitor and edit their policy images over time (Vavreck 2001). In other words, in order to generate electoral support, members generally need to create the appearance of candidate-voter ideological congruence (Meier 1975, Weisberg 1980, Franklin and Jackson 1983, Whiteley 1988, Miller 1991, Bartels 2000, Barker and Hansen 2005).

The media sophistication manifest in member use of franked mail is also evident in other forms of direct communication. Indeed, Cook (1990) suggests that this sophistication has been a defining characteristic of congressional communication since at least the 1980s with members hiring specialized staffers to help them coordinate their constituent communications. These practices continue today (Owen 2007). With help from their staff, for example, many members of Congress have begun using new media at least partially in an effort to generate traditional media coverage (Lipinski and Neddenriep 2004).

Compared to the other communications methods available to members of Congress, we expect Twitter to be most analogous to franked mail. Like franked mail, Twitter balances cost with reach. Franked mail can inexpensively reach all households in a district at a low cost;

Twitter can reach a meaningful portion of a district at no cost. Granted, the typical Congressional Twitter account has only a few thousand declared followers, but the actual reach of a Twitter account can be much larger. For one thing, tweets can be read by anyone, not only by official followers, so the number of followers is likely a conservative estimate of readership. Additionally, followers are likely to be opinion leaders within their districts—reporters, activists, and local politicians—who can convey what they read on Twitter to a broader audience. Lipinski and Neddenriep’s work (2004) implies as much, as do our conversations with Congressional staff. But even if Twitter posts often have a smaller and less defined geographic distribution than franked mail, their relatively costless nature should still make them attractive to members of Congress. Therefore, just as members of Congress use franked mail to create the appearance of ideological and personal congruity with their constituents, we might expect members to use Twitter in the same way.

At the same time, however, while members of Congress may recognize the communicative potential in Twitter, they may hesitate to use the technology. In part, this reticence may arise from purely demographic factors. The typical Twitter user is young and tech-savvy; the typical member of Congress is not.<sup>3</sup> Simply put, the average demographic profile of members is significantly different from that of the average Internet user (Manning 2010; Horrigan 2007).

Beyond the sheer age of members, Evans and Oleszek (2003) suggest that obstacles to individual adoption of any new technology by members include established and trusted

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<sup>3</sup> The Pew Research Center’s Internet and American Life Project reports that 37% of those 18-24 and 25% of those 25-29 use Twitter or some other status-updating site (such as Facebook or MySpace). By contrast, only 9% of those 50-64 and 4% of those 65 or older use these sites. Most members of Congress fall into the latter groups. Similarly, 81% of those 18-29 access the internet wirelessly, but only 34% of those 50 and up do so. See “Social Media and Young Adults,” Feb 3, 2010, at <<http://www.pewinternet.org/Reports/2010/Social-Media-and-Young-Adults.aspx>>.



congressional workways and traditions.<sup>4</sup> Primarily motivated by a desire for reelection (Mayhew 1974; Fiorina 1977) and serving in an era of high incumbency advantages (Ensley, de Marchi, and Munger 2007) and permanent campaigning (Ornstein and Mann 2000), established members of Congress may not want to significantly alter their habits for fear of putting themselves at electoral risk. In addition, such members may also worry about taking even a small amount of resources away from traditional media activities to develop a Twitter account. Therefore, as Johnson (2004) points out, new technologies are most often introduced and adopted by new members of Congress seeking cost-effective ways to secure their newly won positions. When Republicans dramatically gained control of Congress in 1994, for example, Newt Gingrich and other party leaders quickly began to use new digital tools, mirroring in the legislative branch then-President Clinton's efforts in the executive (Jones 2004; Owen and Davis 2008). In the words of Evans and Oleszek, this pattern often results in many members viewing new "technology negatively at first, but opposition to it is gradually overcome as members recognize its value and utility. Then the technology is adapted to the workways of Congress and woven into the routines of the legislative process" (2003, 100). It is entirely likely that use of Twitter may follow this same pattern, with new members of Congress paving the way to more general adoption.

To this point we have considered only individually motivated reasons for members of Congress to use new media such as Twitter. External forces may also play a significant role in member decisions on this topic, however. The influence of party leadership may significantly influence individual adoption rates of new media in Congress. To be sure, the issue of the extent of the influence of party leadership is unsettled. While some afford crucial explanatory power to

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<sup>4</sup> Evans and Oleszek also note that though reliable, efficient means for electronic tallying of floor votes were presented to Congress as early as 1869, it was not until 1970 that the House adopted such measures. The Senate still records all floor votes by hand with paper and pen. As an institution, Congress is wary of new technologies.

the influence of party leadership (Snyder and Groseclose 2000; Aldrich and Rohde 1997; Sinclair 1995), others are more guarded in their appraisal (Mayhew 1974; McCarty, Poole, and Rosenthal 2001), and still others are skeptical of the existence of significant party effects (Krehbiel 1993; Fiorina 2002). Cox and McCubbins (2007) have argued that party leadership is most effective when it focuses on helping current party members retain their seats, an activity that is centrally tied to member communication strategies. At a minimum, then, we might expect communications advice from party leadership to have some influence on member behavior and use of new media tools such as Twitter.

In this vein, Republican Party leadership has recently urged their members to actively adopt new forms of communication such as Twitter, Facebook, and YouTube. House Minority Leader John Boehner used the caucus's 2009 retreat to urge Republican members of the House to try to gain an electoral advantage by surpassing Democrats in their use of new media outlets (O'Conner 2009). During the retreat Boehner also urged party members to be a party of communicators and to use any available method to do so. Perhaps most tellingly, the House Republican leadership identified a freshman representative with communications and marketing experience as a standard others should emulate. Though this freshman is lean on traditional political experience, Boehner and others were enthused about his comfort with new media such as Twitter, his commitment to develop an online constituency, and his willingness to speak directly with constituents using a variety of new media.<sup>5</sup>

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<sup>5</sup> Our information about the House Republican retreat draws on an interview we conducted with the communications director for an anonymous House Republican.

## Hypotheses

Drawing on the arguments presented above, we approach our study with three main hypotheses about why individual members of Congress create and maintain active Twitter accounts.

### *Party Influence*

H1: In the House, Republicans will be more likely than Democrats to use Twitter. This pattern should be most pronounced among each party's leaders. We expect no partisan pattern in the Senate.

### *Member Characteristics*

H2a: Those members who are demographically most similar to average internet users in the United States will be more likely use Twitter.

H2b: New members of Congress will be more likely to use Twitter.

### *Electoral Marginality*

H3a: As has been observed with franking, members whose districts are highly electorally competitive will be more likely to use Twitter when compared with members whose districts are less competitive.

H3b: Likewise, members who differ ideologically from their district will be more likely to use Twitter.

H3c: Members whose constituents are demographically more likely to be internet users will be more likely to maintain active Twitter accounts.

## Data and Variables

We test these hypotheses on three different indicators of Twitter activity. First, we use a simple dummy variable indicating whether each member of Congress has created a Twitter

account at all; 185 members of Congress (35%) have done so. Although this variable is straightforward, however, it has a serious drawback: It does not account for whether members of Congress continue using their Twitter account after creating it. For example, contrast Senator Dick Durbin, who has created a Twitter account but who has never posted a single item to it, with Representative John Culberson, who averages over 130 tweets each month.

We use two additional measures in an effort to account for these differences. Our second measure is a dummy indicating whether the member of Congress has ever posted more than 30 tweets in a single month; 95 members of Congress (18%) have done so. This variable places heavy Twitter users in a single category opposite those who use Twitter rarely or not at all.<sup>6</sup>

Our third measure is each member's logged Klout score. Klout scores are calculated for all Twitter users by a private research firm in an effort to measure the "size and strength of a person's sphere of influence" online. Rather than simply count up how many tweets each member has posted, Klout scores reflect each member's "true reach" (actual audience size), "amplification ability" (number of posts that get replied to or discussed by other Twitter users), and "network score" (where a member's Klout score is boosted if that member's readers also have high Klout scores).<sup>7</sup> Including these scores in our analysis enables us to estimate not only each member's frequency of Twitter usage but also each member's success in influencing political dialog. Klout scores range from 0 to a possible 100, although scores above 50 are rare. The average Klout score among Twitter users in our data is 18.5; the highest Klout score belongs to Representative John Boehner, with a score of 65. We use logged Klout scores to reduce skew; we assign non-Twitter users a score of zero.

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<sup>6</sup> Although the 30 tweets cutoff is arbitrary, it performs roughly the same as other reasonable cutoffs. We chose 30 because it is high enough to reflect active usage but low enough to preserve adequate variance in Twitter usage.

<sup>7</sup> These quotations about Klout's methodology are from the Klout's official website. Note that Klout is a for-profit business independent of Twitter. Details about Klout scores are available online: <http://klout.com/kscore/>

We estimate the first two (dichotomous) dependent variables using probit; we estimate logged Klout scores using ordinary least squares. In all specifications, we employ robust standard errors clustered by state. To test our hypotheses, we regress each dependent variable on the three broad categories of independent variables specified in our hypotheses: Party influence, member characteristics, and district characteristics.

### *Party Influence*

**Party identification:** We use a simple dummy to indicate whether each member is a Republican or, by default, a Democrat. There are only two independents in Congress (Senators Sanders and Lieberman), whom we treat as Democrats.

**Leadership:** We use a second dummy to indicate whether each member holds a leadership position. By “leadership,” we refer to any general position within either party; this definition excludes standing committee chairs but includes the chair of each caucus’s campaign committee.<sup>8</sup> We also include a third term that interacts party with leadership.

### *Member Characteristics*

**Propensity to be online:** Our hypotheses predict that members will be more likely to use Twitter if they are more demographically similar to internet users in general. We include two variables to capture this similarity. The first, year of birth, is straightforward. The second is a general internet usage propensity score. Using a national sample of more than 2000 Americans, The Pew Research Center’s Internet and American Life Project has identified several demographic variables that predict these respondents’ probability of using the internet (Rainie and Smith 2008). We obtained the raw survey data from Pew and estimated a probit equation to predict internet usage based on the variables identified by Pew and available for current members

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<sup>8</sup> Our coding follows the definition of “leadership” employed by Project Vote Smart, from whom we obtained this data.

of Congress. These variables include race, education level, marital status, employment status, gender, and income. Using the resulting coefficients, we then computed each member of Congress's predicted probability of using the internet regularly based on the same variables. These predicted probabilities serve as our "propensity to be online" index.

**Years in Congress:** As is the case with franked mail, our hypotheses also predict that the newest members of Congress will be more likely to adopt Twitter. Our "years in Congress" variable records the number of years (logged) that have passed since each member was first elected to either chamber of Congress.

**Average franks per quarter:** To control for each member's general propensity to maintain open communications with constituents, we also measure the average number of pieces of franked mail that each member sent per quarter between January 2007 and September 2009.

#### *District Characteristics*

**Partisan competitiveness:** We measure each district's general partisan competitiveness by recording the losing major-party presidential candidate's vote share in 2008.<sup>9</sup> This methodology will produce a competitiveness score of 0 in districts where one major-party presidential candidate won 100 percent of the vote and a score of 50 where the candidates were perfectly tied. In our data, we observe scores ranging from 5 to 50.<sup>10</sup>

**Ideological fit:** To measure each member's ideological fit with his district, we regress each district's vote for McCain in 2008 on both dimensions of the member's DW-NOMINATE scores (Poole and Rosenthal 2001). To the extent that the member's roll call votes predict the

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<sup>9</sup> We obtained district-level presidential votes from the National Journal's *Almanac of American Politics*. Their data includes only McCain's vote share in each district, not Obama's. In districts where Obama won, we use McCain's share of the vote. In districts where McCain won, we infer Obama's share by subtracting McCain's share from 100.

<sup>10</sup> Others have used Cook's competitiveness ratings when evaluating district competitiveness. Our scores are essentially the same as Cook's—they correlate at -0.92 ( $p < 0.0001$ ). We use our scores rather than Cook's in the interest of using a transparently constructed measure.

district's presidential vote, we argue that the member fits the district. We therefore use the absolute values of this regression's residuals as a measure of ideological fit. We multiply these absolute residuals by negative one so that higher values (those closer to zero) indicate better fit between the member and her district. This variable ranges from -29.14 to -0.02 with an average of -6.15.

**Propensity to be online:** We estimate the district's general propensity to be online by including education, occupational, and age data for each district. Because internet usage is higher among educated, younger, white collar Americans, we expect that members of Congress will be more likely to use Twitter if their districts fit this profile.

## **Empirical Results**

We begin by estimating separate sets of regressions for House and Senate members, after which we present pooled estimates. Table 1 displays the estimates for the House. These estimates strongly support our expectations about party influence. In the House, Republicans are far more likely to use Twitter than Democrats are. With other variables held at their mean, a Republican's probability of having a Twitter account is 0.44 higher than a Democrat's; a Republican's probability of actively using that Twitter account is 0.29 higher than a Democrat's. Similarly, at the margin, a Republican's Klout score is predicted to be 98.2 percent higher than an otherwise identical Democrat's. These are large effects.

[Table 1 about here]

This partisan pattern is especially pronounced when comparing House Democratic leadership to House Republican leadership. In the House, 10 of 12 Republican leaders use Twitter but only 1 of 17 Democratic leaders follows suit. Moreover, none of the Democratic leaders meets our definition of an "active" Twitter user (i.e., those who have tweeted more than

30 times in a single month). Unfortunately, probit performs poorly when independent variables perfectly predict dichotomous outcome variables; this weakness of probit forces us to omit the leadership dummies from the two probit specifications. Still, the estimated effects of leadership in the linear model (Model 3) confirm our expectation that House Republican leaders use Twitter actively. At the margin, a Republican leader's Klout score is expected to be 129.3 percent higher than an otherwise identical Democratic leader's.

Age has a similarly strong effect on all three variables of interest. To illustrate, we will contrast a member whose birth year is one standard deviation below the mean (1931) with an otherwise identical member born one standard deviation above the mean (1972).<sup>11</sup> The younger member's probability of having a Twitter account is 0.31 higher than the older member's, and his probability of using that account actively is 0.37 higher than the older member's. These effects rival the effect of partisanship. Given that we control separately for Congressional tenure, we can conclude that younger members likely use Twitter simply because they are more comfortable with the internet and other new technologies, and not necessarily because they are less wedded to existing Congressional workways.<sup>12</sup>

For a better grasp of the substantive effects of age and partisanship, refer to Figure 1, which depicts these variables based on the coefficients in Model 2; other variables are held at their means. Based on our data, a 40-year old Democratic representative is as likely to use Twitter actively as an 80-year-old Republican representative. We would therefore expect most Republicans under 40 to be on Twitter regularly, but even the youngest Democrats to tend not to use it.

[Figure 1 about here]

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<sup>11</sup> We code both hypothetical members as Republicans but hold other variables at their means.

<sup>12</sup> Age and Congressional tenure are correlated ( $r=-0.619$ ,  $p<0.0001$ ), but not so highly that we worry about multicollinearity.



Figure 2 takes this interpretation one step further by plotting leaders separately from other representatives. To do so, we use the OLS coefficients from Model 3. All Republicans, regardless of age, are expected to have a positive (if modest) Klout score; only the youngest Democrats approach the same expectation. Moreover, there is a clear difference between Republican leaders and Republican rank-and-file; there is no such difference among Democrats. Apparently, House Republican leaders are teaching by example that they want their entire caucus on Twitter—and many of the Republican rank-and-file are following suit.

[Figure 2 about here]

Contrary to expectations, other member characteristics have minimal effects on Twitter adoption. A member's tenure in Congress, franking activity, and internet usage propensity index have no consistent effect on her probability of using Twitter. In addition, none of the remaining variables—those concerning district characteristics—has a consistently significant estimated effect. Competitiveness and ideological fit each produce a statistically meaningful coefficient in one of the three models, but in both cases the estimated effect is contrary to our hypotheses. The district's average education level appears to have a modest positive effect on member Twitter usage, as expected, but this result appears in only two of three models. Moreover, when district education has the strongest effect (in Model 2) it is counteracted by a strong negative effect of white collar employment. This unexpected finding may reflect some multicollinearity between education and white collar employment; these two variables correlate highly ( $r=0.932$ ,  $p<0.0001$ ).

Table 2 presents corresponding models for U.S. Senators. Partisanship lacks the same robust effects among Senators that we observed among Representatives. Although Senate Republicans may use Twitter at slightly higher rates than Senate Democrats—perhaps reflecting

a spillover effect from the House—the difference does not rise to statistical significance. The absence of a partisan effect in the Senate is not troubling: Although House Republican leaders have urged all House Republicans to use Twitter and other social media, we are unaware of a similar push among Senate Republican leaders.

[Table 2 about here]

We omit the leadership dummies from all Senate models due to low variance. In the House, we record over a dozen leaders in each party. In the Senate, we record only half a dozen leaders among Republicans—insufficient to draw firm conclusions. Including leadership dummies in the Senate does not meaningfully alter other coefficients in the model, but it does produce an erratic estimate of the effect of leadership (especially among Republican leaders) that is highly sensitive to model specification.

The estimated effect of age is roughly as large among Senators as it was among Republicans, although the estimate fails to reach statistical significance in the Senate models. This variable's insignificance may reflect the reduced variance of age among Senators relative to Representatives. In the House, our data includes 88 Representatives aged 50 or younger, 21 of whom are 40 or younger; in the Senate, we record only 8 Senators under 50 and none under 40. Although the estimated effect of age is the same in both chambers, there are apparently too few young Senators to produce a statistically significant estimate.

As in the House, none of the other variables is consistently significant across the three models in Table 2. As a result, we are unable to make any meaningful conclusions about Twitter adoption in the Senate. These null results are not the product of reduced variance on the dependent variables: 34 percent of Representatives and 36 percent of Senators have a Twitter account, and 18 percent of Representatives and 17 percent of Senators are active Twitter users.

That being said, these null findings might result from reduced sample size and reduced variance on our independent variables. To check that possibility, we also present pooled models in Table 3 that incorporate both Senators and Representatives. These pooled models have the additional advantage of enabling us to test whether Senators are more likely than Representatives to use Twitter. As it happens, it does appear that Senators use Twitter more heavily than Representatives. With other variables held at their mean,<sup>13</sup> a Senator's probability of using Twitter is 0.15 higher than an otherwise identical Representative's.

[Table 3 about here]

We hypothesized earlier that members of Congress would use Twitter more if they faced a more difficult electoral situation at home—that is, if their district was more competitive or if they were a poor ideological fit with their district. Although our efforts to measure these variables directly are not consistently significant in our models, this significant difference between Senators and Representatives may reflect the same sorts of forces we discussed earlier. Senate “districts” are much larger and more diverse than House districts. As such, Senators may find themselves experimenting with innovative communications technologies like Twitter in hopes of broadening their appeal.

As before, Table 3 again suggests that House Republicans use Twitter far more than House Democrats; the relevant coefficients have roughly the same magnitude as in Table 1. Somewhat surprisingly, however, Table 3 also shows that Senate Republicans may use Twitter significantly more than Senate Democrats. This partisan effect is smaller and less robust than in the House but still strong enough to suggest a genuine pattern. This partisan effect in the Senate may reflect some spillover from the House; perhaps some Senate Republicans have adopted

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<sup>13</sup> With the exception of partisanship, other variables are held at their means. These estimates are for Republicans; for Democrats, the predicted probabilities are too low to produce a meaningful cross-chamber comparison.

Twitter after observing experimentation among their House Republican colleagues. Alternatively, this cross-chamber partisan effect may simply be the result of minority status. After all, majority members receive far more free exposure in national media outlets than minority members do. For minority members to get their message out, they may well need to rely on Twitter and other alternative media.

The other coefficients in Table 3 are similar to those reported in Tables 1 and 2. Among the other variables in the model, only age is consistently significant; its estimated effect has the same magnitude as in Tables 1 and 2. We omit the other variables from Table 3 in the interest of space.

## **Discussion**

Our results suggest that although Twitter use is becoming popular for many members of Congress, it is difficult to discern patterns of individual motivation for doing so. Many of the expected member characteristics, district characteristics, and elements of electoral marginality have no meaningful effect on the decision by members of Congress to use Twitter. This is true across all of our Twitter use indicators, suggesting that these relationships—and lack thereof—are persistent for all types of Congressional Twitter users. Ultimately, we are aided in our effort to explain congressional Twitter use only by each member's age, party affiliation, and chamber.

Of particular note are the chamber and party effects evident in our models. While it is not difficult to attribute increased Twitter usage among Republicans to specific instruction and exhortation by party leaders, the minority status of the party likely also influenced many Republicans in both chambers to adopt alternative media such as Twitter in an effort to circumvent the traditional media dominance of the majority party. The isolating feeling of minority status was also likely exacerbated by the long-held accusations by many conservatives

of liberal bias in the established media. As noted above, therefore, at least some Republicans may have adopted Twitter because they felt they had few other ways to communicate their party message to the voting public.

Still, the much stronger effect of partisanship in the House relative to the Senate suggests that party leadership also plays a role. In the House, Republican leaders have urged their caucus to use Twitter and other social media to communicate their message. They have led by example, with Minority Leader John Boehner having the highest Klout score of any member of Congress. These efforts have enhanced the partisan gap in Twitter usage in the House when compared to the Senate.

Regardless of party, we also find that Senators are more likely than Representatives to use Twitter. This finding is somewhat more complicated. Given that Senators tend to be older than Representatives, we might expect Senators to be less likely to use Twitter. Instead, after taking account of age, we find the opposite. Senators may use the service more than Representatives because they represent larger and more diverse constituencies. We intend to test these possibilities directly in future drafts of this research.

Perhaps our most intriguing result is the limited role that electoral considerations seem to play in members' Twitter adoption and usage. Very few electoral factors in our analysis appeared to consistently matter to members of either chamber. Our initial expectations, therefore, that members had begun to use Twitter because they were either electorally challenged, or ideologically out of step with their constituents, were not borne out. Similarly, while record breaking sums were spent by candidates on traditional communication efforts during the 2008 election, Twitter usage among incumbents did not rise meaningfully during the campaign season. Figure 3 depicts the number of Congressional accounts in existence over time, with vertical lines

making the beginning and end of the campaign season (September 1st through election day) and the beginning of January. Instead, Twitter usage took off sharply in early 2009 as the 111<sup>th</sup> Congress convened. These findings are surprising given members' electoral focus and Twitter's ability to directly reach a broad group of voters at low cost to the member.

[Figure 3 about here]

This is not to suggest, of course, that members do not use Twitter for political purposes. Indeed, even a brief review of the content of members' tweets reveals that the messages often publicize political events, principles, or information. Instead, our variables may prove poor proxies of electoral motivation. More broadly, it may be the case that *all* members of Congress feel equally threatened by reelection. If members of Congress feel "unsafe at any margin" (Mann 1978) then there would be little or no variance in the perceived need for members of Congress to shore up their bases of electoral support. This would indicate, as our results suggest, that other factors such as member age and the behavior of party leadership play a larger role than may otherwise be expected in predicting Twitter usage. The seeming absence of electoral motivations may also be attributable to limitations in available data. Most of the Twitter accounts currently in use by members were created in early 2009, after the 2008 election had concluded. More time and elections are therefore likely needed before possible electoral motivations in Twitter use become clearer. We may well observe a spike in Twitter usage during future campaign cycles.

Evans and Oleszek's (2003) work also suggests that although members are using Twitter at an increasing rate, they may be doing so hesitantly. Not only have Twitter and other social media technologies yet to be adopted into formal Congressional workways, but many in the mass public have yet to fully embrace them as well. Mindful of the electoral benefits of appearing in-step with their constituents not only politically and ideologically, but culturally and

technologically as well, members of Congress may be hesitant to more fully adopt and employ Twitter in high exposure periods such as a campaign until Twitter's widespread popularity appears more stable and persistent.

More universal adoption notwithstanding, current Twitter use may have far-reaching effects on the nature and quality of representation. The impression that one may use Twitter to frequently check in with and check up on a member of Congress may increase constituent trust and support.<sup>14</sup> Such changes may come as a result of the direct, at times personal nature of tweets, which may cause some to feel that members are being more honest and trustworthy. These feelings are likely enhanced when individuals publicly become followers of a member's tweets, especially when follower lists are relatively small, thereby endowing followers with the feeling of membership in an elite group. Similarly, the interactive nature of Twitter should not be overlooked either. Individuals may feel that they have a larger and more direct ability to influence the decisions and behavior of their member of Congress when a relevant Twitter account is available.

At the same time, however, the presence of Twitter in member-constituent communication may serve to weaken the relationship as well. Mayhew (1974) has argued that the pressing demands of constant reelection often lead members of Congress to disregard substantive policymaking in favor of trivial actions that help them build a personal following. The ability to produce and instantly distribute brief, costless messages to a potentially huge audience, many of whom may have already expressed an interest in the member by publicly following their Twitter feed, may exacerbate this tendency. Indeed, it is not uncommon for current Congressional Twitter users to use the service less to engage in substantive policy

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<sup>14</sup> Several modern thinkers have called for increased member-constituent interactivity online (Jensen and Helles 2005, Jarvis and Wilkerson 2005, Tedesco 2007), though members have been reticent to provide it (Stromer Galley 2000; Owen, Davis, and Strickler 1999).

discussions and more to publicize either personal media appearances or, in the case of one member, to complain about the service he received from an airline.<sup>15</sup>

Ultimately, however, our results indicate that more time and data are necessary before a clearer picture of Congressional use of Twitter is possible. To that end, our work in this paper has laid an initial framework upon which future studies may build. At the least, we cannot afford to overlook questions of how and why members of Congress use alternative media. As modern communications continue to rapidly change and influence the mass public, the presence of services such as Twitter will also directly affect democratic elections,<sup>16</sup> congressional governance, and member-constituent relations. More work is needed, therefore, in order to accurately understand Twitter's potential electoral connection.

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<sup>15</sup> On February 1, 2009, Pete Hoekstra posted the following tweet: "Service at its finest?If they can book Diane from Detroit to Grr because there's 1 seat why can't they put me on standby?NWA says because?"

<sup>16</sup> One need look no further for evidence of this point than Barack Obama's 2008 presidential campaign. See Box-Steffensmeier and Schier 2009, and Wolffe 2009 for a useful summary.



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**Table 1: Twitter Usage among U.S. Representatives**

	Model 1 Has Twitter Account?	Model 2 Active Twitter User?	Model 3 Twitter Influence (Logged Klout)
<b>Party influence</b>			
Republican	1.250** (0.155)	1.214** (0.187)	0.982** (0.144)
Leader			-0.426+ (0.215)
Leader * Republican			1.293* (0.539)
<b>Member characteristics</b>			
Year of birth	0.0203* (0.0100)	0.0257* (0.0128)	0.0171+ (0.00990)
Propensity to be online	-2.484 (6.550)	1.769 (7.572)	-3.243 (5.449)
Years in Congress (logged)	-0.167 (0.115)	-0.113 (0.157)	-0.105 (0.0833)
Average franks per quarter	-1.78e-07 (6.01e-07)	-3.83e-07 (7.76e-07)	2.48e-07 (6.13e-07)
<b>District characteristics</b>			
Partisan competitiveness	-0.0182* (0.00812)	-0.00217 (0.00976)	-0.0107 (0.00743)
Ideological fit with district	0.0158 (0.0137)	0.00786 (0.0165)	0.0208+ (0.0119)
Percent with a college degree	0.0240 (0.0195)	0.110** (0.0235)	0.0295+ (0.0172)
Percent in white collar jobs	-0.0132 (0.0273)	-0.131** (0.0283)	-0.0233 (0.0235)
Median age in district	0.0114 (0.0209)	0.0375+ (0.0226)	0.00155 (0.0207)
Constant	-37.29* (15.72)	-49.73* (19.47)	-28.38+ (15.07)
N	409	409	409
Model estimated	Probit	Probit	OLS
Pseudo R <sup>2</sup> or OLS R <sup>2</sup> (adjusted)	0.169	0.194	0.195 (0.170)

\*\* p<0.01, \* p<0.05, + p<0.1. Standard errors cluster-corrected by state.

**Table 2: Twitter Usage among U.S. Senators**

	Model 4 Has Twitter Account?	Model 5 Active Twitter User?	Model 6 Twitter Influence (Logged Klout)
<b>Party influence</b>			
Republican	0.568 (0.351)	0.636 (0.443)	0.445 (0.456)
<b>Member characteristics</b>			
Year of birth	0.0225 (0.0276)	0.00230 (0.0288)	0.0113 (0.0306)
Propensity to be online	4.589 (10.58)	6.363 (11.63)	5.678 (9.724)
Years in Congress (logged)	0.334+ (0.182)	0.385 (0.259)	0.345+ (0.187)
Average franks per quarter	6.94e-06 (5.55e-06)	7.82e-06 (5.64e-06)	8.84e-06 (7.07e-06)
<b>District characteristics</b>			
Partisan competitiveness	0.0257 (0.0307)	-0.0238 (0.0393)	0.0268 (0.0363)
Ideological fit with district	-0.0162 (0.0296)	-0.0161 (0.0333)	-0.0184 (0.0407)
Percent with a college degree	0.0488 (0.0732)	0.0154 (0.0994)	0.0143 (0.0768)
Percent in white collar jobs	-0.0181 (0.0999)	-0.0143 (0.144)	0.0344 (0.110)
Median age in district	-0.0400 (0.0499)	-0.0837 (0.0689)	-0.102 (0.0647)
Constant	-49.65 (46.24)	-8.687 (46.79)	-27.43 (52.13)
N	96	96	96
Model estimated	Probit	Probit	OLS
Pseudo R <sup>2</sup> or OLS R <sup>2</sup> (adjusted)	0.0800	0.120	0.090 (-0.017)

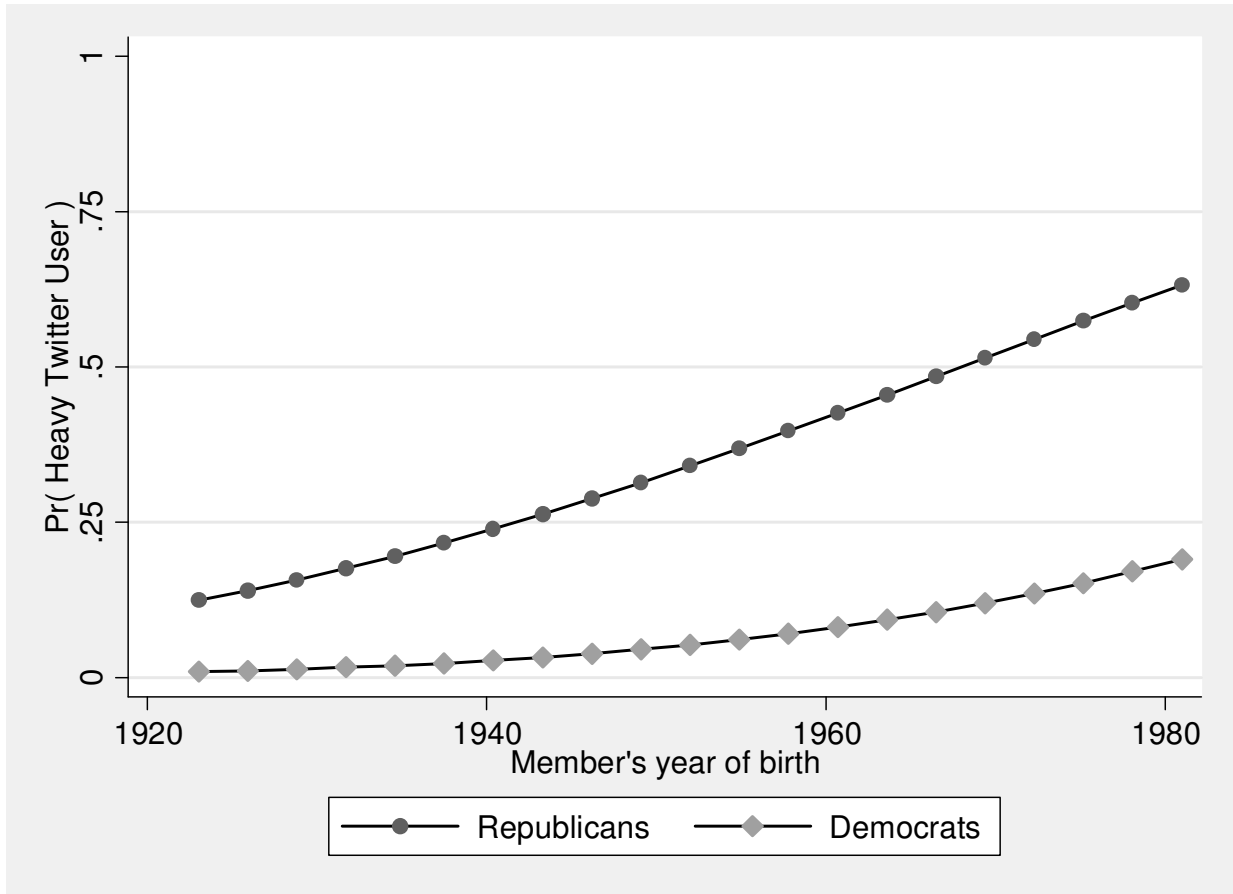
\*\* p<0.01, \* p<0.05, + p<0.1. Standard errors cluster-corrected by state.



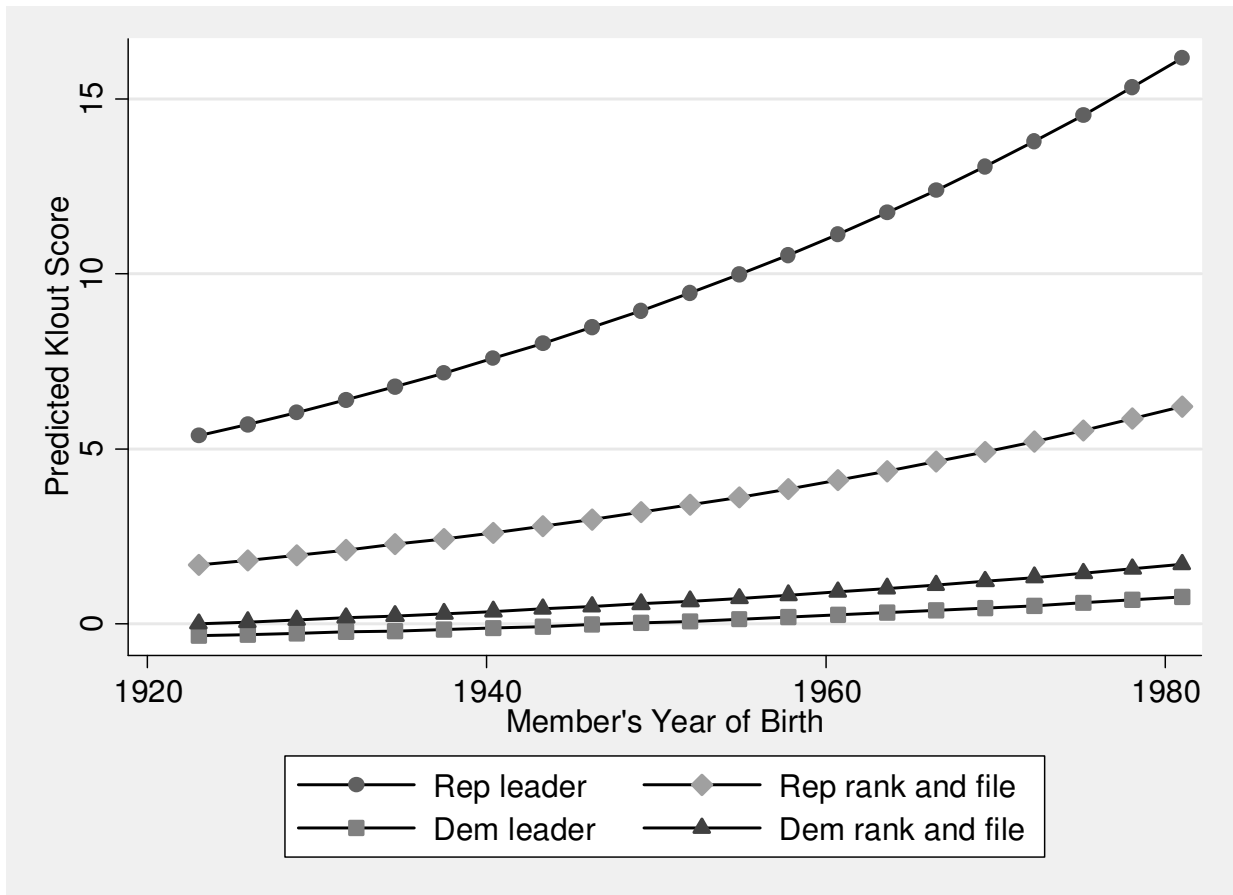
**Table 3: Pooled Estimates of Twitter Usage among Representatives and Senators**

	Model 7 Has Twitter Account?	Model 8 Active Twitter User?	Model 9 Twitter Influence (Logged Klout)
<b>Party influence</b>			
Senator	0.612** (0.213)	0.434 (0.273)	0.580** (0.208)
Senate Republican	0.506+ (0.272)	0.758* (0.320)	0.434 (0.329)
House Republican	1.190** (0.148)	1.148** (0.181)	0.938** (0.145)
House Leader			-0.404+ (0.215)
House Leader * Republican			1.258* (0.546)
<b>Member characteristics</b>			
Year of birth	0.0220* (0.00910)	0.0271* (0.0118)	0.0177+ (0.00953)
Propensity to be online	-0.302 (5.267)	-1.282 (5.526)	-0.578 (4.459)
Years in Congress (logged)	-0.0185 (0.0946)	0.0288 (0.124)	0.0212 (0.0871)
Average franks per quarter	2.23e-07 (5.92e-07)	1.26e-07 (6.96e-07)	6.18e-07 (6.36e-07)
<b>District characteristics</b> (included, but none consistently significant)			
Constant	-43.07** (14.68)	-49.75** (18.75)	-32.44* (15.34)
N	505	505	505
Model estimated	Probit	Probit	OLS
Pseudo R <sup>2</sup> or OLS R <sup>2</sup> (adjusted)	0.139	0.156	0.151 (0.127)

\*\* p<0.01, \* p<0.05, + p<0.1. Standard errors cluster-corrected by state.

**Figure 1: Effects of Age and Partisanship on Active Twitter Usage in the House**

**Figure 2: Effects of Age, Party, and Leadership on Twitter Reach (Klout Scores) in the House**



**Figure 3: Adoption of Twitter Accounts over Time**

