

**Social Networks in Political Campaigns:  
Facebook and the 2006 Midterm Elections**

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## **Social Networks as Viral Campaigns: Facebook and the 2006 Midterm Elections**

### **ABSTRACT**

As part of a 2006 election feature, Facebook created entries for all U.S. congressional and gubernatorial candidates. Candidates or their campaign staff then could personalize the profile with everything from photographs to qualifications for office. Facebook members could view these entries and register their support for specific candidates. They also received notification every time one of their Facebook friends registered support for a candidate. Facebook displayed the number of supporters for each candidate and calculated the percentage of “votes” that candidate had in his or her race. According to Facebook, 2.64% of their users supported a candidate. All total, 1.5 million members (about 13% of the total user base) were connected either to a candidate or to an issue group.

This study investigates the extent of Facebook profile use in 2006, and analyzes which Congressional candidates were more likely to use them, with what impact on their vote shares. Of those running for the Senate, 32% posted content to their Facebook profile, with the Democratic and Republican candidates attracting an average of 2,146 supporters. Of those running for the House, 13% posted profiles with an average of 125 supporters among Democratic and Republican candidates. Democrats were more likely to post a profile and had more supporters as well. For House candidates, challengers, better-financed candidates, and candidates running in competitive races were the most likely to update their Facebook profile. Competitiveness of the race was the only variable to have a significant effect on whether or not a Senate candidate campaigned on Facebook. The candidates’ Facebook support had a significant effect on their final vote shares, particularly in the case of open-seat candidates. Given that Facebook supporters may not draw from a candidate’s eligible and registered voters and tend to overrepresent the 18 to 24 year old age demographic, we see this measure as a proxy for the underlying enthusiasm and intensity of support a candidate generates. In other words, the number of Facebook supporters is an indicator of a campaign resource that does matter, and is independent of the impact of other variables in our predictive model.

## **Introduction**

In 2006, a record number of congressional candidates maintained a campaign web site: 85% of those running for Senate and 79% of those running for the House had an online presence. We saw more standardization of baseline informational web content and features, as well as greater integration of web sites into candidates' overall communication strategies (Gulati and Williams, 2007). Taking a cue from Howard Dean's successful use of Meetup and Bush-Cheney's house parties in 2004, the Republican and Democratic parties launched their own online organizing tools, MyGOP and Partybuilder (Sifry, 2006). The use of blogs by candidates and the public was expanding rapidly (Gueorguieva, 2007; Lenhart and Fox, 2006), and candidates seemed poised to employ the web in ways that promoted participatory democracy and re-energized grassroots political organizing.

Yet, instead of introducing tools that established forms of two-way communication between candidate and voter, the participatory tool that emerged in 2006 was the social networking site. Although the media directed most of their attention to MySpace (Keen, 2006; Kelly, 2006; Loveley, 2006; Vascellaro, 2006) and YouTube (Fairbanks, 2006; Feldman, 2006; Farhi, 2006; Lizza, 2006; Schatz, 2006; Wasserman, 2006), the site most prominently used by the candidates was Facebook. In 2006, Facebook created entries for all U.S. congressional and gubernatorial candidates, which they could personalize, and which were available for members who wished to view them, register votes supporting specific candidates, and notify friends. Despite the media coverage of Facebook (Grynbaum, 2006; Yahr, 2006) and the others, there are as yet no empirical studies of the role of social networking sites in elections. This study investigates the extent of their use in 2006, and analyzes which candidates were more likely to use them, with what impact on their vote shares.

## **Social Networks and the Internet**

A social network is a set of people, organizations, or other social entities connected by a set of socially meaningful relationships. When a computer network connects people, it is a social network (Wellman, 1997). These virtual communities "emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace" (Rheingold, 1993, p. 5; also Kerbel and Bloom, 2005). Scholars have identified, but disagree about, the relative benefits of online and offline communities (Bimber, 1998; Nip, 2004). For example, the Internet facilitates bonding without being in close proximity either spatially or temporally, across national borders and time zones. It can include and accommodate all types of individuals, in large numbers, who may not have known one another previously. On the other hand, online communities tend to be loosely structured networks with weak identity ties that are difficult to control and have difficulty making decisions (Bennett, 2003). Robert Putnam in his book *Bowling Alone* (2000), defines social capital as the collective value of all social networks and the inclinations that arise

from these networks to do things for each other. He and others (e.g., Green and Pearson, 2005) see social capital as a key component in building and maintaining democracy.

Other scholarly debates engage the question of whether Internet based technologies are changing the way that advocacy and activism are practiced, given that they make many aspects of lobbying, campaigning and organizing more effective and efficient (Bennett, 2003; Green and Pearson, 2005; Hick and McNutt, 2002). Bennett suggests that the organizational weakness of online communities may prove to be a core resource for a new politics whose boundaries are much more permeable, thereby changing the political game in favor of resource poor groups. Bimber (1998) sees online communities increasing fragmentation in the political system, but not entirely eroding the influence of political elites, institutions and organized groups as some fear. Nip (2004) concludes her review proposing that a zero sum game is an inappropriate characterization of the advantages and disadvantages of online and offline communities, an interpretation born out by Wellman, et al, (2001) whose findings show that online interactions supplement face to face communication.

Social networks have significantly different objectives than web sites. Candidates control both the content of the web site as well as how users interact with it. Social networking sites, on the other hand, allow users to contribute or even control content and to initiate contact with other users. Sometimes the struggle for control over the message or access to supporters forces campaigns to respond. For example, MySpace acceded to the Obama campaign's request to turn over access to the profile created independently by a volunteer for the Senator (Sifry, 2007). YouTube pulled down a controversial video shot of Senator McCain at a campaign stop, then admitted it had been 'mistakenly removed' when liberal activists protested (Ostrom, 2007). Given their reach of millions of potential voters, social networks pose a dilemma for campaigns over when they should react and when they should not.

MySpace launched the end of 2003. It advertises itself as a place for friends that supports the creation of private communities through which people can share photos, journals and interests with a growing network of mutual friends.<sup>1</sup> Facebook launched three months later, in February of 2004. Facebook opened membership to people outside the .edu domain in September 2007. According to its web site, Facebook is a social utility that connects people with friends and others who work, study and live around them.<sup>2</sup> Facebook supports applications for uploading an unlimited number of photos, sharing links and videos, and learning more about the people they meet. YouTube made its debut in February 2005. It promotes itself as the leader in online video, the premier destination to watch and share original videos worldwide via the Web by uploading or downloading video clips to and from web sites, mobile devices, blogs, and email.<sup>3</sup>

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<sup>1</sup> See < <http://www.myspace.com/index.cfm?fuseaction=misc.aboutus>>.

<sup>2</sup> See < <http://www.facebook.com/about.php?pwstdfy=5e75d13b36da44914a2259f704152c53>>.

<sup>3</sup> See < <http://youtube.com/t/about>>.

In Fall of 2006, MySpace had 60,000 unique visitors to its site. That has grown to almost 70,000 today. YouTube had close to 30,000 unique visitors at the time of the election, and has grown to just over 50,000 currently. The Facebook audience is smaller than the other two networks', but also is growing, from about 15,000 last fall to almost 23,000 a year later.<sup>4</sup> These three social networks attract a somewhat different age demographic. Data from summer 2006 show that 18 to 24 year olds continue to dominate the Facebook community at 34%. That represents twice the percentage share for that age group at MySpace and YouTube, over half of whose users are 35 years or older.<sup>5</sup> In terms of both reach and demographic profile, social networks have become a medium to which campaigns must attend.

### **Social Networking Sites as a 2006 Election Tool**

All of the major social networking sites allow their members to form "groups" centered on almost any topic or theme and then identify and connect with others who have the same interest. Creating a new group is a relatively simple process. Once members join a Facebook group, they can post to the group's "wall," engage others on an open discussion board, and share photographs, videos and other media files. To date, several thousand groups have been organized along a political theme (E. Calahan & C. Hughes, personal communication, October 24, 2006).

Since the membership eligibility rules prior to 2006 precluded most candidates from establishing their own profiles, the main way for them to connect with their supporters and expand that network of supporters was to have a campaign supporter who was affiliated with an educational institution form a group supporting the candidate. Because there were a vast number of political groups and the process for browsing through even a subset of listings was very cumbersome, it was a challenge for the candidate to be noticed by the casual observer. Moreover, many of the political groups were only loosely related to politics and government or had names that were inappropriate, making it even more difficult to stand out as a legitimate group that should be taken seriously.

One of the first candidates to find a way around this dilemma was Senator Evan Bayh (D-IN), who was not running for reelection but exploring a presidential bid in 2008. Senator Bayh used his alumni email account provided to him by the University of Virginia's School of Law to create his own personal profile, which his staff developed extensively and updated on a regular basis. The site even included links to videos of his speeches that had been uploaded on YouTube. While this method of joining Facebook provided many candidates access to the Facebook community, the structural limits of the site made it ineffective for a candidate to use it as tool for mobilizing a larger number of supporters. For example, each member was limited to having only 5,000 friends, a number unlikely to be reached by even the most popular college student, but completely inadequate for a

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<sup>4</sup> Data from <<http://siteanalytics.compete.com/myspace.com+YouTube.com+Facebook.com?metric=uv>>.

<sup>5</sup> Data from <<http://www.comscore.com/press/release.asp?press=1019>> and from <<http://www.imediaconnection.com/content/12474.asp>>.

candidate running for the presidency (R. Alexander, personal communication, October 18, 2006).

Facebook was aware that their site was growing in popularity as a space where candidates and voters could interact and recognized its potential as a vehicle for enriching the democratic process. In response, Facebook created a complementary section within the main site called *Election Pulse*. This feature provided generic profiles to candidates running for a congressional or gubernatorial seat, with the candidate's name, office, state, and party affiliation already posted to the profile. A listing of candidate profiles grouped by states and congressional districts was provided so that specific candidates could be easily located by members.

In early September, Facebook emailed representatives at the Democratic and Republican national committees with log-in information and passwords, which they could forward to the candidates, who then would be responsible for managing the profiles for the rest of the campaign. Other candidates who asked for a profile also were given access, including sitting politicians who were not up for reelection (E. Calahan & C. Hughes, personal communication, October 24, 2006), the most notable example being Senator Barack Obama (D-IL). Senator Bayh asked that his personal profile be converted into a profile within the *Election Pulse* feature. This somewhat cumbersome process made it much less likely that an unauthorized supporter (or opponent) would develop the profile for the candidate, an event that is a constant worry on MySpace (McGonigle, 2006; Vascelaro, 2006).

Once the candidates took possession of their sites, they could personalize their profiles in the same way open to any member. They could post photographs, summarize their qualifications for office and major accomplishments, list their favorite television programs, movies, books and other interests. Facebook profiles also provide the capability for the candidate to publicize their support for a number of existing political groups, causes and other candidates, post "notes" to their supporters, and post and respond to comments on their wall.

Facebook's efforts with *Election Pulse* and its streamlining of the process for connecting candidates and supporters seemed to encourage a substantial number of candidates to integrate the site into their online strategies. Almost one-third of the candidates running for the Senate (32%) and about one of every ten candidates running for the House (13%) updated their *Election Pulse* profile in some way (see Table 1).<sup>6</sup> In contrast, only 21% of the Senate candidates and only 2.7% of the House candidates had profiles on MySpace. Moreover, a significant number of these sites seemed to have been created by someone not officially affiliated with the campaign. Disclaimers on the sites made clear that 12 of the 27 Senate profiles and five of 30 House profiles were not created by the candidate.

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<sup>6</sup> This wide difference between House and Senate candidates is similar to what had been observed in the early days of internet campaigning. Senate campaigns typically raise more money and are managed by a more professional staff than House campaigns and, thus, tend to be the first to experiment with new technologies and communication strategies. And out of necessity, candidates running in a more competitive race also have sought out alternative ways of reaching voters.

Thus, at best, only 12% of Senate candidates and 2.3% of House candidates had a legitimate campaign on MySpace. And even fewer candidates campaigned on YouTube. Only 13 of 130 Senate candidates created their own “channels,” where the candidates could post videos and allow “subscribers” to their channels to share videos with other supporters. Not one of the 1,102 House candidates had their own channel.<sup>7</sup> Although MySpace and YouTube received considerably more attention from the press in 2006, the candidates clearly directed more of their attention to Facebook when considering how to use online social networking sites to mobilize supporters.

On each profile, Facebook displayed the number of supporters for each candidate and provided a continuous snapshot of each candidate’s percentage of “votes” in his or her race. Candidates need not have accessed their profiles to gain supporters. Among Senate candidates, each had at least one supporter in his or her tally. Most had supporters in the triple digits with an average of 2,146 supporters for the Democratic and Republican candidates. Senator Hillary Clinton (D-NY) had the most support, with 12,038 Facebook users having registered themselves as supporters. While no one other candidate was nearly as popular as Senator Clinton, four other Democrats—Bob Casey (PA), Harold Ford (TN), Sherrod Brown (OH), and Ned Lamont (CT)—exceeded 5,000 supporters. Moreover, nine of the top 10 candidates were Democrats. The most successful Republican candidate and sixth overall was Senator Rick Santorum (R-PA), who registered support from 4,981 Facebook users.

Among Democratic and Republican candidates for the House, the average number of supporters was 125. As was the case for the Senate, House Democratic candidates were more popular than Republican candidates with the Facebook community. The House candidate with the most supporters was Rep. Tammy Baldwin (D-WI), who had 913 members registered as supporters even though she had not personalized her profile by October. Others who were among the most popular were Rep. Dennis Moore (D-KS), Patty Wetterling (MN), Rep. Dennis Kucinich (OH), and Rep. Marion Berry (AR). The Republican with the most support and ranked 9<sup>th</sup> overall was then-Speaker Dennis Hastert (R-IL), with 580 supporters. According to Facebook, 2.64% of their users supported a candidate. All total, 1.5 million members (about 13% of the total user base) were connected either to a candidate or to an issue group (C. Hughes, personal communication, November 9, 2006).

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<sup>7</sup> Data on the number and percentage of candidates who had a presence on Facebook, MySpace, and YouTube were collected by the authors.

<b>Table 1</b>		
<b>Facebook Presence in 2006 by Party and Incumbency</b>		
	<b><u>Senate</u></b>	<b><u>House</u></b>
	<b><u>%</u></b>	<b><u>%</u></b>
<b>Overall</b>	<b>31.5</b>	<b>12.8</b>
<b><i>Party</i></b>		
<b>Democrats</b>	<b>60.6</b>	<b>16.9</b>
<b>Republicans</b>	<b>39.4</b>	<b>13.6</b>
<b>Libertarians</b>	<b>21.4</b>	<b>7.5</b>
<b>Greens</b>	<b>22.2</b>	<b>12.2</b>
<b>Other 3rd parties</b>	<b>9.5</b>	<b>4.3</b>
<b>Independents</b>	<b>5</b>	<b>0</b>
<b><i>N</i></b>	<b>130</b>	<b>1084</b>
<b><i>Incumbency Status</i></b>		
<b>Incumbents</b>	<b>48.3</b>	<b>13.4</b>
<b>Challengers</b>	<b>40.8</b>	<b>14.6</b>
<b>Open seat candidates</b>	<b>36.4</b>	<b>17.3</b>
<b><i>N</i></b>	<b>89</b>	<b>950</b>

Democratic candidates not only were more popular with Facebook members, but they also were more likely to embrace the Facebook community than Republicans. This finding suggests that the decision to campaign with Facebook is a reflection of partisan differences in mobilization strategies that finds Democrats more eager than Republicans to use the Internet as a way to communicate with their supporters. As Table 1 shows, 61% of Democratic candidates for the Senate in 2006 updated their Facebook profile, but only 39% of Republican candidates did the same. In the House races, Democratic candidates also were more likely than Republicans to have updated their Facebook profiles, but the differences were not statistically significant ( $X^2=1.633$ ;  $p=.201$ ). In races for both offices, minor-party candidates lagged behind the major-party candidates. Since Facebook did not create profiles for most independents and the smaller third-party candidates in the way that it did for other candidates, it was not surprising that these candidates were the least likely to campaign on Facebook.

Table 1 also presents the results disaggregated by incumbency status for all the candidates except those running as independents and nominees of the smaller third-parties. While it appears that incumbents were the most likely to use Facebook among Senate candidates, and incumbents were the least likely to use Facebook among House

candidates, none of these differences achieved statistical significance. This is in contrast to what was observed when candidates first campaigned on the web, where incumbents were the least likely to have a campaign web site. More recent studies have shown, however, that incumbency status is less relevant to the decision to campaign online today (Williams and Gulati 2006; Gulati and Williams 2007).

## **Research Questions/Hypotheses**

### ***RQ1: Which candidates were more likely to use Facebook?***

Our hypothesis is that the explanatory variables will mirror those that were found to predict web presence in the early days of Internet campaigning. Studies of this period identified two sets of factors that explained which candidates posted a campaign web site. The first set represents indicators tied to attributes of their constituencies, namely demographic indicators correlated with citizen access to and use of the Internet: income, education, age, ethnicity and urbanization (Chadwick, 2006; Klotz, 2004; Mossberger et al., 2003). Higher levels of education make people more comfortable with and skilled in the use of technology, while higher levels of income make computers easier to afford. Although whites use the Internet at higher rates than do blacks, racial differences have diminished over time and seem to be a reflection of disparities in education and income (Marriott, 2006). The age gap persists, however: Internet use declines with each advancing age group. Urban areas have greater Internet use than rural areas, but the difference has declined substantially. These constituency demographics in turn influence candidates' Internet use (Hernnson, et al., 2007).

The second set of explanatory factors includes attributes of the specific candidates and election contest: incumbency status, political party, competitiveness of the race, and amount of funding (Herrnson, et al., 2007; Klotz, 2004). Third party and financially disadvantaged candidates were less likely to have a campaign web site in the early days of Internet campaigning, although these were not a barrier subsequently. Financial resources and major party status still differentiate which campaigns incorporate the latest technology and features, however. In the early days, incumbents were less likely than challengers to campaign on the Web, but a competitive race increased its use by incumbents and challengers alike (Kamarck, 2002; Herrnson, et al., 2007). Electoral attributes are less important today in differentiating which campaigns have a web site, but remain important determinants of the degree to which they provide more sophisticated content and use their web site to engage and mobilize supporters (Gulati and Williams, 2007).

### ***RQ2: Did Facebook profiles and supporters have an impact on candidates' vote shares?***

Gibson and McAllister's (2006) recent analysis of the 2004 Australian national elections suggests that online campaigning can have a positive impact on a candidate's share of the vote. Even when controlling for financial resources and competition, they found that having a web site increased a candidate's share of the vote by an average of 2%. Unless Gibson and McAllister's findings are specific to the Australian context, we expect that U.S. congressional candidates who campaigned on Facebook in 2006 won a larger share of the vote than candidates who did not campaign on Facebook when controlling for all other variables.

There is very little corroborating evidence, however, from the few other studies that have addressed this same question in the U.S. context. D'Alessio's (1997) analysis of the 1996 U.S. Senate elections found that candidates who launched a campaign web site won, on average, 9,300 more votes than candidates who had no web presence. Yet this study omitted a number of theoretically important variables, including financial resources and competition. Since these two variables are correlated with both a web presence and votes, the observed relationship between web presence and electoral success is likely spurious.

Bimber and Davis' (2003) in-depth case studies of online campaigns in 2000 further called into question a causal connection between web site presence and vote choice. They found that citizens' viewing of candidates' web sites had no impact on their decisions about whether to vote or their vote preference. These findings were derived from research on only a limited number of races, leaving open the possibility that a positive relationship between web site presence and vote shares exists more generally.

## **Data and Methods**

To address our first research question and explain why some candidates were more likely than others to update their Facebook profile in 2006, we first viewed the Facebook profiles of every Senate and House candidate during the week of October 9. We then estimated a logistic regression model of Facebook presence for all Senate candidates and a second model for all House candidates. The dependent variable—*Facebook Activity*—was coded as a “1” if the candidate accessed and updated his or her profile in any way and coded a “0” if s/he did not. Since Facebook initially created profiles only for candidates nominated by established political parties and prominent independents, we directed our analysis to Democrats, Republicans, Libertarians and Greens.<sup>8</sup> This provided us with 88 cases to analyze for the Senate model and 946 cases for the House model.

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<sup>8</sup> Since Joseph Lieberman (ID-CT) began the campaign as a Democrat and Bernie Sanders (I-VT) had pledged to caucus with the Democrats as he did when he was a House member, we coded both as Democrats. We estimated a model that excluded them from the analysis and obtained results that were nearly identical to the model that included them as Democrats.

Our independent variables in the model included four electoral characteristics and four indicators of constituency-demand, all of which have been linked both theoretically and empirically to the presence of campaign web sites in previous studies (Gulati & Williams, 2007). Party was measured as a series of dichotomous variables for Republicans, Libertarians and Greens, with Democrats serving as the reference category. Dummy variables also were constructed for challengers and candidates to open seats, with incumbents serving as the reference category. Our indicator for the campaign's financial resources is the natural log of the total net receipts collected between January 1, 2005 and December 30, 2006.<sup>9</sup> Our fourth electoral variable is the competitiveness of the race. A race was coded as competitive if it had been designated as a toss-up or only leaning toward one party by the *Cook Political Report* on October 4, 2006.<sup>10</sup> The indicators that we used to account for constituency-demand were: (1) the percentage of residents over 24 with a college degree, (2) the percentage of residents classified as white, (3) the percentage residents under 65, and (4) the percentage of residents living in urban areas.<sup>11</sup>

We assessed the impact that a Facebook campaign had on the election outcomes in 2006 in two ways. First, we regressed the dependent variable—the candidate's final vote percentage—on both the candidate and opponent's Facebook activity, controlling for other variables that have been shown to affect the outcomes of congressional elections (Herrnson, 2004; Jacobson, 2004). Second, we regressed the final vote on the natural log of the number of Facebook members who registered as a supporter of the candidate and the natural log of the number of members who registered as a supporter of the opponent.<sup>12</sup> Because the explanatory model for races with an incumbent running is different from races where there is no incumbent, we estimated one set of models for incumbents who ran for reelection and had a major-party opponent and another set of models for all major-party candidates running for open seats.<sup>13</sup> We also focused solely on House races since there were only 29 Senate incumbents running for reelection and 8 major-party candidates running in open seats. Although we could have simply folded these races in with the House races, we rejected this strategy because of past research indicating that there is a different model for Senate races.

For the incumbent models the control variables were (1) the incumbent's partisan advantage in the district, (2) the incumbent's voting record relative to the district's preferences, (3) a scandal associated with the incumbent, (4) the presence of a quality challenger, and (5) the ratio of challenger-to-incumbent net receipts.<sup>14</sup> We also expected

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<sup>9</sup> Data on campaign contributions were obtained from the Federal Election Commission: <<http://www.fec.gov/finance/disclosure/ftpsum.shtml>>.

<sup>10</sup> See <[http://www.cookpolitical.com/races/report\\_pdfs/2006\\_house\\_comp\\_oct4.pdf](http://www.cookpolitical.com/races/report_pdfs/2006_house_comp_oct4.pdf)>.

<sup>11</sup> These data are from the 2000 Census and were obtained from the U.S Bureau of the Census.

<sup>12</sup> We used the natural log transformation because we assumed a non-linear relationship between the votes and number of supporters, with diminishing returns for each additional supporter (Kutner et al., 2004).

<sup>13</sup> Data were obtained from CNN: <<http://www.cnn.com/ELECTION/2006/pages/results/house/>>. CNN continued to update results until 100% of precincts had been reported and recounts completed.

<sup>14</sup> The incumbent's partisan advantage is the average of their party's presidential candidate's vote in the district in 2000 and 2004 and then subtracting the average of the opposing presidential candidate's vote in the district from the same two years. Incumbents' voting record relative to their districts' preferences is

that running as a Republican would be a liability because of the unfavorable poll ratings registered by President Bush and the Republican-led Congress throughout the fall. Thus, we included a dummy variable for party, with Republicans assigned a “1” and Democrats assigned a “0.” For the open seat models, the controls were (1) party, (2) the candidate’s ideological advantage in the district, (3) the ratio of candidate-to-opponent net receipts, and (4) relative experience.<sup>15</sup>

## **Analysis and Findings**

### ***Which Candidates Posted Content on Facebook’s Profiles?***

The results of the multivariate logistic regression analysis of profile presence for House candidates are presented in the first column of data in Table 2. These data show that challengers, better-financed candidates, and candidates running in competitive races were the most likely to update their Facebook profile. This would suggest that the candidates who are the most likely to embrace social networking sites are those that see this new communication medium as an additional tool for winning votes. Challengers must find a way to overcome the advantages of incumbency, which allows members of Congress to draw upon an established network of supporters and contacts. Moreover, since over three-fourths of incumbents already have to maintain both an office and campaign web site, there is even less of a need to dedicate staff time to a third presence online. When the race is more competitive, however, all candidates regardless of incumbency status may try to exploit every available technological resource to help them expand their electoral base and maximize turnout among their supporters. Since the cost of updating profiles and posting content is extremely low, we believe that better-financed candidates are more likely to post a profile on Facebook because campaigns with the most money also tend to have the most sophisticated and professional organizations. They have come to see the Internet as a fundamental component of any communication and mobilization strategy.

Candidates running in districts with a higher percentage of college graduates also were the most likely to have used Facebook in 2006. Since Facebook’s membership had been open mostly to those associated with colleges and universities, it is no surprise that candidates running in districts with a high proportion of college graduates would want to experiment with Facebook as a way to communicate their message. None of the other constituency variables were statistically significant. This is essentially the same pattern that we have observed in studies of campaign web sites (Gulati & Williams, 2007).

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estimated with the residual from the regression of the average of their 2005 and 2006 ADA ratings on the 2004 Democratic presidential vote. A list of incumbents associated with a scandal was obtained from the November 7, 2006 edition of the *Hotline*. A quality challenger was defined as one who had previously been elected to the state legislature, had been elected Governor, Lt. Governor, Attorney General in their state, or was a previous member of Congress.

<sup>15</sup> The candidate’s ideological advantage in the district is the 2004 presidential vote of their party’s candidate minus the 2004 presidential vote of the opponent party’s candidate. To measure relative experience, this variable is coded a “1” if the candidate is a quality challenger and the opponent is not, a “0” if both are quality challengers, and a “-1” if the candidate is not a quality challenger but the opponent is.

House candidates may find it difficult to tailor their campaign strategies and tools to groups who are more likely to use the Internet and most likely expect to access information about campaigns and politics in general online.

<b>Table 2</b>		
<b>Multivariate Logit Analysis of Facebook Presence in 2006</b>		
<b>Independent Variables</b>	<b>House</b>	<b>Senate</b>
<i>Party (Democrats=reference category)</i>		
Republicans	<b>-0.165</b>	<b>-1.009</b> *
	<i>0.213</i>	<i>0.560</i>
Libertarians	<b>0.386</b>	<b>-1.197</b>
	<i>0.563</i>	<i>1.291</i>
Greens	<b>0.846</b>	<b>-1.246</b>
	<i>0.614</i>	<i>1.314</i>
<i>Incumbency Status (Open seat candidates=reference category)</i>		
Challengers	<b>0.663</b> ***	<b>0.449</b>
	<i>0.241</i>	<i>0.676</i>
Open seat candidates	<b>0.126</b>	<b>-1.256</b>
	<i>0.373</i>	<i>0.938</i>
Contributuions received (ln)	<b>0.164</b> ***	<b>0.150</b>
	<i>0.044</i>	<i>0.161</i>
Competitive seat	<b>0.785</b> ***	<b>1.535</b> ***
	<i>0.271</i>	<i>0.594</i>
Percent white	<b>0.007</b>	<b>-0.004</b>
	<i>0.007</i>	<i>0.020</i>
Percent w/college degrees	<b>0.024</b> *	<b>0.090</b>
	<i>0.014</i>	<i>0.076</i>
Percent under age 65	<b>0.018</b>	<b>0.040</b>
	<i>0.033</i>	<i>0.174</i>
Percent urban	<b>-0.007</b>	<b>-0.026</b>
	<i>0.007</i>	<i>0.025</i>
Intercept	<b>-5.231</b> ***	<b>-3.433</b>
	<i>0.829</i>	<i>3.130</i>
N	946	88
Percent correctly predicted	85.5	71.6
Pseudo R <sup>2</sup>	0.117	0.307
<i>Note: Bold entries are unstandardized logit coefficients; standard errors are in italics. * p &lt; .10, ** p &lt; .05, *** p &lt; .01.</i>		

The results of the replication of the same model for Senate candidates are shown in the second column of Table 2. The difference between the results for the Senate and the House is quite striking. The only variable to have a significant effect on whether or not a

Senate candidate campaigned on Facebook is the competitiveness of the race. Neither campaign contributions nor percentage of college graduates had a significant effect at conventional levels of significance. This is somewhat expected since Senate campaigns tend to have a higher profile and are more nationally oriented than House campaigns. In this context, major parties are likely to field stronger challengers who have met a higher threshold of viability and thus can compete on a more level playing field. In House races, where a significant number of incumbents have no major-party opponent contesting their seat or face an inexperienced challenger, re-election rates have been consistently higher (Jacobson, 2004). Thus we see in the House that financial resources do differentiate campaigns that exploit every available technology, including social networks, from those that do not to gain votes. At the level of the Senate, however, these do not seem to matter in either an absolute or comparative sense because once a candidate achieves the viability threshold of a national campaign, neither incremental increases nor a gap between incumbent and opponents in financing matters

We did find some evidence to suggest that among Senate candidates, Democrats were the most likely to use Facebook, while Republicans were the least likely to use Facebook. Although these differences are statistically significant at only the .10 level, it is consistent with numerous press accounts of the Democrats' responsiveness to the "netroots" and a difference in the two parties' approaches to technology-assisted campaign strategy. Republican campaigns are typically more hierarchical and structured. In the 2006 elections, moreover, Sifry (2006) found that what distinguished the Democrats' Partybuilder application from MyGOP was principally the amount of control. The former emphasizes the openness of user created lateral networking, and, based on this and other aspects of the two sites, they conclude that the Democrats had the upper hand in terms of user participation. Republicans are not averse to adopting new technologies, but Facebook simply does not match their campaign approach or reach their potential supporters as well.

### ***Did Facebook Matter in 2006?***

The results of the two multivariate regression analyses of House incumbents' final vote percentage are presented in Table 3. The estimates from the first model indicate that when controlling for a number of electoral variables, incumbents who updated their Facebook profile did not perform any differently than incumbents who did not update their profile. In addition, incumbents who ran against challengers who updated also did not perform any differently than those who did not. This would suggest that Facebook did not have an impact on the 2006 elections, at least in terms of final vote percentages.

The estimates from the second model suggest an entirely different role for Facebook in 2006. When controlling for the same electoral variables from the first model, substituting the natural log of the number of the incumbents' Facebook supporters and the challengers' supporters indicates that a candidate's Facebook activity had a significant effect on the incumbent's final outcome. The coefficients for the log-transformed variables indicate that a 1% percent increase in number of Facebook supporters for

incumbents increased their final vote percentage by .011, while the same increase in number of Facebook supporters for challengers reduced incumbents' vote percentage by .015. Put another way, an incumbent who had 100% more supporters than another incumbent (i.e., twice as many supporters) would have finished with a vote share that was 1.1% higher than the other incumbent. At the same time, if the incumbent's opponent had twice as many supporters as the other incumbent's opponent, he or she would have finished with a vote share that was 1.5% lower.

<b>Independent Variables</b>	<b>Model 1</b>	<b>Model 2</b>
Party (Republican=1)	<b>-9.675</b> *** <i>0.699</i>	<b>-8.640</b> *** <i>0.781</i>
Incumbent's partisan advantage	<b>0.103</b> *** <i>0.024</i>	<b>0.098</b> *** <i>0.025</i>
Incumbent's voting record (centrism)	<b>0.122</b> *** <i>0.026</i>	<b>0.121</b> *** <i>0.027</i>
Incumbent scandal (Yes=1)	<b>-2.886</b> * <i>1.737</i>	<b>-2.655</b> <i>1.736</i>
Contributuions received (challenger/incumbent ratio)	<b>-9.833</b> *** <i>1.064</i>	<b>-7.950</b> *** <i>1.266</i>
Quality challenger (Yes=1)	<b>-3.556</b> *** <i>1.248</i>	<b>-3.091</b> ** <i>1.262</i>
Incumbent updated Facebook profile (Yes=1)	<b>-0.884</b> <i>0.962</i>	- -
Challenger updated Facebook profile (Yes=1)	<b>-0.324</b> <i>0.911</i>	- -
# of Facebook supporters, incumbent (ln)	- -	<b>1.056</b> * <i>0.540</i>
# of Facebook supporters, challenger (ln)	- -	<b>-1.541</b> *** <i>0.513</i>
Intercept	<b>81.831</b> *** <i>1.420</i>	<b>80.419</b> *** <i>2.607</i>
N	341	329
Std. Error	5.970	5.964
Adjusted R <sup>2</sup>	0.645	0.653

*Note:* Bold entries are unstandardized regression coefficients; standard errors are in italics. \*  $p < .10$ , \*\*  $p < .05$ , \*\*\*  $p < .01$ .

While these results suggest that the impact of Facebook has the potential to be substantial, it is important to note that there is a diminishing return associated with adding more supporters. Increasing the number of supporters from 100 to 200, would add 1.1% to an incumbent's vote share. But to add another 1.1%, 200 more supporters would need to be added. Another 1.1% increase would require 400 additional supporters. Moreover, no candidate is adding supporters in a vacuum. Presumably, the challenger also is adding supporters, making the net effect, like campaign effects somewhat minimal (Finkel 1994).

In Table 4, we present the two multivariate regression analyses of House open-seat candidates' final vote percentage. These results suggest that social networking sites may have an even larger impact in open-seat races. As can be seen from the coefficients generated from Model 1, open-seat candidates who updated their Facebook profile had a 3.8% higher vote share than candidates who did not update their profiles.

As can be seen in the coefficients from Model 2, the effect of the number of Facebook supporters is quite substantial. Candidates who doubled the number of supporters (i.e., increased their support by 100%) increased their final vote share by 3%. At the same time, candidates running against challengers who doubled the number of their supporters saw their vote share decrease by 2.4%. In both of these cases, the effect of Facebook activity is over twice the amount observed for incumbents and their challengers. Without an incumbent in the race, campaign messages and the ability to communicate that message effectively become much more important for winning votes. Facebook seems to be one more tool that candidates can use to connect with voters and make a favorable impression.

<b>Table 4</b>		
<b>Multivariate Regression Analysis of Open Seat Candidates' Final Vote Shares, 2006 House Races</b>		
<b>Independent Variables</b>	<b>Model 1</b>	<b>Model 2</b>
Party (Republican=1)	<b>-12.331</b> *** <i>1.773</i>	<b>-5.286</b> <i>1.890</i>
District ideology	<b>0.314</b> *** <i>0.037</i>	<b>0.338</b> <i>0.042</i>
Financial advantage (incumbent/challenger ratio)	<b>0.301</b> *** <i>0.094</i>	<b>0.203</b> <i>0.098</i>
Relative experience	<b>3.551</b> *** <i>1.192</i>	<b>0.373</b> <i>1.341</i>
Incumbent updated Facebook profile (Yes=1)	<b>3.849</b> * <i>1.953</i>	- -
Challenger updated Facebook profile (Yes=1)	<b>-1.962</b> <i>2.022</i>	- -
# of Facebook supporters, incumbent (ln)	- -	<b>2.975</b> *** <i>1.095</i>
# of Facebook supporters, challenger (ln)	- -	<b>-2.355</b> * <i>1.183</i>
Intercept	<b>65.318</b> <i>2.918</i>	<b>52.401</b> <i>5.368</i>
N	64	56
Std. Error	5.811	5.22
Adjusted R <sup>2</sup>	0.798	0.845

*Note: Bold entries are unstandardized regression coefficients; standard errors are in italics. \* p < .10, \*\* p < .05, \*\*\* p < .01.*

## Conclusions and Implications

Taken together, the evidence from our analyses provides a compelling case that Facebook played an important role in the 2006 congressional races and that social networking sites have the capability of affecting the electoral process. Yet, we are not entirely convinced that Facebook supporters actually contributed to the candidates' margin of victory given that 18-to-29 year olds have a lower voter turnout rate than other age groups. In addition, members could support multiple candidates and live outside the candidates' district or state, as could their Facebook 'friends' who were informed of their support for particular candidates.<sup>16</sup> Members of Facebook did not need to be registered to vote or even intending to vote to indicate their support for candidates on the site. With individuals under 18 comprising 14% of the Facebook community, there is a sizable group of supporters who are not even eligible to vote.

Nor was Facebook set up to directly facilitate off-line political activities such as transmitting campaign contributions to candidates, signing up to attend Meetup or other campaign organizing events, volunteering, or registering to vote in 2006. Candidates could not even mass email their supporters to inform them of events and volunteering opportunities. Facebook's privacy policy and community norms discourage members from sending mass messages to multiple members or friends. Instead, candidates had to post notes on their profiles, which then would trigger a notification to all supporters that a friend had posted a new note. This feature was available, however, only if the supporter had not altered the privacy setting to prohibit these notifications.

What strikes us as more likely is that the number of Facebook supporters is capturing the underlying enthusiasm and intensity of support for a candidate. While it long has been recognized that the intensity of support for each candidate or policy proposal must be taken into account when assessing political outcomes (Dahl, 1956), it has been challenging to measure intensity and estimate its effects in a statistical model. It is possible that members of any community who are more enthusiastic about their choice are more likely to want to publicize that support and then take the time to do it. In addition, the candidates who have generated more positive media coverage are more likely to perform better (Herrnson, 2004), as well as finding themselves to be quite popular on the Internet.

Of course, Facebook also could have an impact prior to the election if, as a result of viewing profiles or communications from Facebook friends, members engaged in other offline campaign activities designed to influence the wider electorate, i.e., potential voters outside the network. For example, members might be motivated to volunteer to work for a campaign, or to make a contribution to candidates they learned about through the network. Facebook does not provide direct outlinks or host applications to facilitate these activities, which then could be tracked

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<sup>16</sup> Data provided directly by Facebook indicates that it was indeed the case that many (46%) Facebook members supported multiple candidates. Of course, for members in a number of states, there were elections to the House and Senate and for Governor in 2006 and only 10% registered their support for four or more candidates.

Considerable media attention was focused on how congressional candidates in 2006 integrated Facebook and other social networking sites into their larger campaign strategies and on what impact this new campaign tool had on the final results. As the attention only intensifies among both the media and the candidates, social networking sites are poised to become “the next big thing” in the upcoming 2008 campaigns.

Yet with all of the hype surrounding these sites and their potential for transforming campaigns and the electoral process, our study is the first to examine how pervasive Facebook and other social networking sites are in current campaigns and what effect they have had on the final outcome. We have shown that Facebook had a role in the 2006 campaigns, both in terms of being embraced by a significant percentage of major-party candidates and in terms of the final vote. To reiterate, we found that 32% of candidates for the U.S. Senate and 13% of candidates for the House updated their Facebook profiles. In addition, incumbents added 1.1% to their vote share by doubling the number of supporters on Facebook, while open-seat candidates added 3% by achieving that same increase.

We need to see how this new technology plays out over several elections and further empirical research before designating online social networks as a major determinant of election outcomes. However, our initial results are quite striking and worthy of note. If future research can confirm these findings and demonstrate a causal connection between online strategies and votes, then Facebook and other social networking sites will be an essential tool in enhancing the democratic process. These sites go beyond simply communicating the campaign’s theme and information on how to make participating easier. Active engagement by the candidate and a well maintained site can make the candidate more accessible and seem more authentic. It also can encourage a more professional discussion among supporters (R. Alexander, personal communication, October 18, 2006). In addition to personalizing the candidate, Facebook puts a face on the other supporters and facilitates interpersonal connections around activities other than politics. And because Facebook organizes members by regional and organizational networks and gives greater access to profiles in one’s own networks, offline meetings and connections are a real possibility. As fewer people are members of traditional civic associations, it is here that we see a new frontier for cultivating social capital, which candidates, elected officials and civic leaders can tap when wanting to mobilizing citizens for political action.

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