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Congressional Campaign Communications in an Internet Age

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Abstract

The Internet provides new opportunities for candidates to engage with voters and present information in ways that could enhance the nature of candidate-voter interactions. Yet, candidates have to think carefully about using these opportunities, as they could be costly under certain circumstances. In this paper, Druckman explores the conditions that lead congressional candidates to capitalize on these opportunities using data from the 2008 campaign. He finds that candidates do not uniformly embrace new communication and interactive features; instead, their use is driven by practical (e.g., campaign funds) and political (e.g., incumbency status, race competitiveness) considerations that are in line with more general campaign strategies. Far from being a panacea promoting candidate-voter interaction, candidate use of website technology reflects a recognition of practical realities and a commitment to strategic decision-making.

Congressional campaigns engage candidates and voters in a discussion of policy and other political matters. These exchanges are critical to the democratic process because they help determine the eventual composition of Congress and provide voters with an opportunity to influence future policy directions. As such, the quality of candidate-voter interactions is tied to the quality of governance.

Campaign websites allow candidates to employ a variety of new technologies, including interactive and presentation features that have the potential to change the nature of the relationship between candidates and voters. For example, candidates can create sites with forums for discussion and deliberation, and with content that is updated in real time. These features allow candidates and voters to connect in ways that would have been unimaginable less than a decade ago.

However, candidates have interests apart from achieving a robust and deliberative democratic process and may make decisions based on assessments of relative risk and reward. Specifically, they may decide to use certain online technologies based on practical or political calculations rather than a commitment to democratic values.

In this paper, we explore how congressional candidates communicate and engage with voters through their campaign websites. We argue that campaigns decide to use specific technologies based on strategic considerations of costs and benefits. For example, interactive features may engage visitors, but they can also result in a loss of message control, and advanced presentation features can be a drain on valuable resources, particularly when they require staff attention and energy. Therefore, we suggest that campaign website decisions are not driven by the mere opportunity to create interesting websites or enhance the democratic

process; they are driven by factors similar to those that influence any other campaign tactic.

We develop this argument in the next section, after first describing the online opportunities available to candidates. We then test our predictions with data from a representative sample of more than 400 congressional candidate websites from the 2008 campaign. We end with a brief conclusion that highlights our principal findings and the implications they have for researchers and others interested in the relationship between candidates and voters in an Internet age.

Congressional Campaign Communication on the Web

Candidate websites have become a critical medium for campaign communications. They have quickly gone from being considered intriguing but largely inconsequential (e.g., Bimber and Davis 2003, 99) to ubiquitous and influential (e.g., Gulati and Williams, 2009, 54). Whereas in 1996, only 22% of major-party House candidates and 66% of major-party Senate candidates were online (D'Alessio 1997, 491), these numbers had jumped to 92% and 99% respectively by 2008.[1] The proliferation of these sites has coincided with growing interest among voters (e.g., Rainie and Horrigan 2007; Smith 2011)—particularly

[1] These figures are based on our analysis of major-party congressional candidate website use in the 2008 campaign. We used the *National Journal* to identify every major-party House candidate and every major-party Senate candidate. We then used Google and other search options to locate each candidate's website. We were able to identify campaign websites for 745 out of the 808 House candidates (92%) and 68 out of 69 Senate candidates (99%). (Some races were uncontested).

politically engaged voters (Tolbert and McNeil 2003; Norris 2004)—in addition to activists (e.g., Foot and Schneider 2006) and journalists who disseminate information (e.g., Ireland and Nash 2001, 14-15). The nearly universal use of these sites, combined with growing visitation statistics, highlights their integral role for both voters and candidates.

Campaign websites also offer researchers a near ideal window into how candidates approach campaigns more generally. The ubiquity of these sites allows researchers to draw representative samples that include candidates who do not run ads or gain much attention from local media. Candidate websites also offer an unmediated and virtually limitless composite of a campaign, thus giving a complete view of the candidate's entire message (see Druckman, Kifer, and Parkin 2009). As such, those interested in campaign behavior can gain more than usual by studying these sites.

The new technologies that candidates can use to enhance voter communication can be grouped into three categories: content interactivity, inter-personal interactivity, and real time presentation of information (Bucy 2004). In what follows, we describe the technologies in each category, discuss their costs and benefits, and then posit our theory about which candidates are most likely to incorporate these innovations.

Content interactive features allow users to engage with site material in ways not possible with older media such as printed newsletters. Perhaps the most notable example is *personalization features* that allow visitors to input information that could lead to personalized feedback (e.g., create a personalized page), change the content of a page (e.g., rearrange information), and/or link the candidate's site

to one's own site. Personalization also includes campaign solicitations for visitor information (e.g. zip code, interests) that are used to send crafted messages to specific groups (see, e.g., Cornfield 2004, 42; Stewart, Pavlou, and Ward 2002, 368-369). External links are another feature that promote content interactivity in that they enable visitors to self-select information from other sites. These include non-partisan *external links* (e.g., news, government) and *partisan external links* (e.g., party, presidential candidate).

Inter-personal interactivity occurs when users are able to engage with one another and/or the campaign (Bucy 2004; Kaye and Johnson 2006, 149). The most obvious example is *inter-personal communications* where visitors can post comments on the campaign's blog or engage in a forum or chat, with their communications appearing on the site. We can also consider the more advanced options available on blogs as another measure of inter-personal interactivity—that is *blog complexity.* Advanced blog features include allowing visitors to upload pictures, audio and video, to create their own blogs, to attach their blogs to the candidate's blog, or to distribute the candidate's blog to other users. All of these features are related by their ability to connect the campaign to voters in a personal way.

In addition to interactivity, websites are unique in that they allow for real time mixed or multi-media presentations and information updates. Campaigns can quickly upload new *multi-media* such as videos, audios, and/or podcasts as the campaign unfolds. This might include audio or video of things like campaign stops, speeches, new ads, or interviews. Candidate websites can also provide *new information* in the form of updated text—e.g., scheduling updates, calendars. These

online presentation features enable campaigns to get information to voters with unprecedented speed.

All of these features—content interactivity, inter-personal interactivity, and real time presentation—provide candidates with opportunities to communicate with voters in ways that were difficult, if not impossible, before the Internet. Yet, each feature has costs and benefits that candidates have to consider.

The primary benefit of content interactivity (personalization, external links) is that it allows visitors to customize their interaction with campaign material. Visitors are given the freedom to search out the information they want. This can bolster the persuasiveness of the candidate's message (O'Keefe 2002, 245-6) while giving voters a sense of control and ownership in the campaign. Similarly, inter-personal interactivity (blogs, forums, chats) can stimulate attention and active participation. It can also create a sense of belonging to an online community or movement, which, as Barack Obama's 2008 presidential campaign showed, can be very valuable (Kenski, Hardy, and Jamieson 2010, 305-6). The key benefit of both interactive features is that they can strengthen the ties between voters and the campaign.

There are, however, certain costs involved with using interactive features. From the campaign's perceptive, the downside of active personalization, in particular, is that it can result in incomplete information for voters who specialize in certain topics and thus fail to receive the whole candidate message—even though the campaign still controls what voters see (Stromer-Galley 2000; Chadwick 2006, 8). Perhaps an even greater cost involves the resources (e.g., money, staff) required

to customize content for specific users in order to track their habits and preferences and respond to them with tailored websites (Graf 2008, 65).

Other interactive features are easy to employ but force campaigns to relinquish greater control over their message. External links make it easy for visitors to leave the site for places where the campaign has little to no control over the message they will receive (e.g., Foot and Schneider 2006, 59). This may be particularly costly with partisan external links because they not only restrict the campaign's control over content but also explicitly link the candidate to their party, which could create problems for a candidate hoping to appeal to a broad group of voters (see Davis 1999, 101; Druckman, Kifer, and Parkin 2009). Inter-personal interactivity like blogs and forums also create message control problems by opening the candidate's website to a limitless amount of unregulated and unpredictable speech (Stromer-Galley 2000). The primary downside of most interactive features is that they require campaigns to give up significant message control.

Real time presentation features also have their own competing benefits and costs. Constant updates can provide a sense of dynamic energy while the use of multi-media can present information in a stimulating way (Graber 2001; Druckman 2003). New information can be important because, "a website that never (or infrequently) changes will be visited once or twice and then abandoned. Voters will not return unless they believe something new has happened" (Davis 1999, 116; also see Bimber and Davis 2003, 127-130; Cornfield 2004, 26-7). The downside of real time presentation is that it requires resources to create new information and keep it updated (e.g., continually post the most recent ads or interviews). This may be a significant burden on some campaigns (Parkin 2011).

We anticipate that the costs and benefits of online technologies will affect candidates in different ways depending primarily on their status in the race, the competitiveness of the race, and their available resources. We believe that these factors matter most because they establish candidates' practical realities and shape their attitudes towards risk. In other words, candidate status, race competitiveness, and resources determine what features can be realistically used and what risks should be taken with them.

Our theory is premised on a number of insights from past research on voter behavior and campaign communications. It is well known that a key purpose of campaign rhetoric is to establish the criteria that voters use in making their vote choice (e.g., Riker 1996). Candidates want voters to focus on their relative strengths over their relative weaknesses (e.g., Miller and Krosnick 1996; Petrocik 1996). However, in congressional races, voters pay relatively little attention to campaign rhetoric, especially if the race is not close (Herrnson 2008). In most cases, incumbency serves as a highly accessible consideration (Jacobson 2004, 23; Mondak 1995, 1045) such that, all else equal, voters will generally disregard new campaign rhetoric and stick with incumbents over challengers (Gronke 2000, 140-1; Ansolabehere and Snyder 2004, 487; Abramowitz, Alexander, and Gunning 2006). The incumbency advantage gives incumbents little incentive to actively campaign because doing so may draw voter attention to the race (Trent and Friedenberg 2008; Druckman, Kifer, and Parkin 2009).

These insights have clear implications for candidate use of online interactivity and presentation technologies. To begin with, incumbents ought to be more risk adverse than challengers or open seat candidates. Incumbents can rely on

their incumbency advantage whereas challengers and open seat candidates have to get voters' attention if there is any chance that they will change their vote choice criteria. This suggests that, *compared to incumbents, challengers and open seat candidates will be more likely to use all types of online technologies* (except partisan links). Challengers and open seat candidates have to take risks (e.g., possible loss of message control) and actively campaign (e.g., update information) whereas incumbents are better served by playing it safe.

One caveat, however, is that we expect incumbents to use more partisan links (e.g., to the candidate's party, presidential candidate, or sitting president). We suspect this to be the case for three reasons. First, incumbents are usually relatively safe and highlighting their party, even in cases when their constituents are not overwhelming from the same party, is less risky (Druckman, Kifer, and Parkin 2009). Second, incumbents often possess established partisan records and thus evading or being ambiguous about their partisanship is less useful. Third, incumbents commonly desire advancement within Congress, and doing so often requires perceived party loyalty (see Cox and McCubbins 1993).

We also expect that race competitiveness will play a role in candidate use of online technologies. As races tighten, voters will start to pay more attention to campaign rhetoric (Chong and Druckman 2010; Bowler and Donovan 2011) and be more likely to visit campaign websites and acquire information. They might, for example, move away from relying on standard criteria (e.g., incumbency) and start to evaluate the candidates' competing messages. As a result, campaigns will worry more about inducing voters to focus on their message. This means that campaigns will be particularly determined to control site content. Campaigns will not want to

risk losing control of their message when every vote counts in a tight race. We therefore hypothesize that *as the campaign becomes more competitive, sites will be less likely to include external links, partisan external links, inter-personal communication, and blog complexity (i.e., the technologies that jeopardize message control).* In contrast, in less competitive races, campaigns—particularly those that are trailing—will forfeit message control in order to engage and stimulate voter attention, which these interactive technologies often do.

Our final hypothesis is relatively straightforward: *as a campaign's resources increase (i.e., campaign funds), it will be more likely to include costly technologies including personalization, text information updates, and multimedia updates*. Better funded campaigns will have the time and money required of these options, while underfunded campaigns may feel compelled to spend their limited resources on things other than website monitoring and updating (Bimber and David 2003, 27; Herrnson, Stokes-Brown, and Hindman 2007, 32).

The growth of campaign websites has given campaigns new opportunities to enhance their communication with voters. While each new technology—content interactivity, inter-personal interactivity, and real time presentation—has clear benefits, each also has some clear costs. We expect that candidates will perceive these costs and benefits differently. Specifically, we predict that use of most interactive features will be a function of candidate status and race competitiveness (both of which affect the relative risks that candidates are comfortable taking), while available resources drive the use of real time presentation features.

[Table 1 About Here]

We summarize our predictions in Table 1. The first column lists the individual technologies, the second column categorizes them, and the third column lists the campaign technique associated with each feature—active updates (which require resources) and message control (which depends on candidate status and race competitiveness). The final three columns display our key predictions.

Data

We test our hypotheses with data from an extensive content analysis of congressional candidate websites from the 2008 campaign. We assembled the data set by first identifying the campaign website for every major-party Senate candidate and a random sample of major-party House candidate websites (stratified by region). The full sample of 402 campaign websites includes 68 from Senate candidates and 334 from House candidates.[2] A team of trained content analyzers coded the sites, including, as we will shortly discuss, identifying the presence or absence of each of our key technologies. We coded all of the sites towards the end of the campaign, during the ten days prior to Election Day. We also took a sample of about one-third of the sites (137) and coded them two additional times earlier in the campaign—once in the early fall, then again near the middle of October.[3] This allows us to assess whether our full coding at the end of the campaign reflects the approaches taken throughout the entire period.

[2] Our 2008 coding is part of a larger project. For more information please see: http://faculty.wcas.northwestern.edu/%7Ejnd260/currentresearch.html#campaigns.

[3] Specifically, 137 sites were coded in wave 1, 140 in wave 2, and 402 in wave 3.

Coders analyzed the entire self-contained site; in most cases, this included a front-page, fundraising area, biography area, issues area, and multi-media area. It also often included a blog, and in some instances additional idiosyncratic pages. In Table 2, we describe the exact way in which we constructed each of our technology dependent variables. The table also displays the mean (standard deviation) or percentage scores for each technology.[4]

[Table 2 About Here]

We constructed our *personalization* variable by counting, over the entire site, how many of the following features exist: visitors can take a quiz and receive feedback, visitors can receive tailored information, visitors can create a personalized page, visitors can enter qualitative information, visitors can enter quantitative information, visitors can move information on the site, and visitors can link the site to their personal site. Each of these options allows users to engage with the content of the site in ways unique to their particular preferences and/or backgrounds. As Table 2 shows, most sites did not include many of these options with the average site including only .38 out of a possible seven features.

We created our *external link* variable by counting the number of such links on the site. These links included varied connections to the sites of news organizations, interest groups, registration websites, social media websites, etc. We again see relatively low average levels given the near infinite number of possible

[4] To assess the reliability of the coding, we randomly sampled approximately 30% of the websites in wave 3 and had one of two reliability coders code these sites. Specific reliability statistics are available from the authors; in general, we found high levels of reliability, nearly always exceeding the .80 threshold (see Neuendorf 2002, 143).

external links—the average site contained 5.11 links. (Most sites—86%—did have at least one external link though.) Our *partisan external link* variable counted links to party sites, President Bush's site, or the presidential candidates' (Obama and McCain) websites. The average site shied away from any partisan link (only .22 out of 4 possible links, on average).

Inter-personal communication counts the number of opportunities, on the entire site, for visitors to post items to blogs, chats, or forums. *Blog interactivity* sums the range of advanced interactive options available on the candidate's blog including posting distinct forms of multi-media, creating personalized blogs, connecting their own blog, and distributing blog posts. Perhaps not surprisingly, given the loss of message control, sites, on average, did not include many interactive communication options. The average site included only .42 inter-personal communication options (where the maximum is 4) and only .48 of a possible 8 ways to post information on blogs.

New information is a dichotomous measure indicating whether there appears to be information on the site that was updated by the campaign—nearly 86% of sites did update. Finally, our *multi-media* measure counts the total number of video or audio files throughout the candidate's website. While about 77% of sites had at least some multi-media, most did not include a lot with the average site having 1.77 multi-media elements.

Overall, then, sites employed relatively few of these technologies. This coheres with prior practices; indeed, Druckman, Kifer, and Parkin (2007) report analogous values on most of these technologies, with three notable exceptions. First, sites are marginally more likely to provide at least some external links (86% of

sites provide at least one external link versus 73% in 2002-4), but they are less likely to provide partisan links. In 2002-4, nearly 28% of sites included a link to a party site, for example, whereas in 2008, only 18% of sites did so. Second, even though sites do not post many audios and videos, the fact that 77% of sites had at least one is a dramatic increase from the 44% found in 2002-4. We suspect this stems, in large part, from the rise of YouTube (among the sites with at least one video, 54% employed YouTube) and increased bandwidth available to site visitors. Third, again, while the number of inter-personal communication options is few (only 32% of sites had at least one in 2008), it still exceeds the number in 2002-4 (i.e., the pre-blog era) where only 9% of sites had inter-personal interactive technologies.

Candidate, Race, and District/State Data

We supplemented our web data with information about the candidates, races, and districts/states. We describe these variables and present descriptive statistics in Table 3.[5] We will employ these variables in the multi-variate models below that are used to test our hypotheses.

As explained, our three main independent variables are candidate status (which we measure with two dichotomous variables—indicating challengers or open-seat status), resources or funds raised (in millions of dollars), and competition. Our funds raised variables come from the Federal Election Commission, which failed

[5] Unless otherwise noted, our data are measured at the candidate level, and come from either *The Almanac of American Politics* (Barone, Cohen, and Ujifusa 2007) (complemented by the *National Journal* website) or the census.

to report financial data for 18 of our 402 candidates. Given the importance of funds, we report analyses with the fund raising variable included, although our results are unchanged if we instead exclude fundraising. We measure competition with Cook's non-partisan ratings to classify races as solidly Democratic or Republican (0), likely Democratic or Republican (.33), leaning Democratic or Republican (.66), and toss up (1) (see www.cookpolitical.com). Scholars commonly rely on Cook scores because they have the virtue of being exogenous to the races themselves (e.g., Gronke 2000, 100-101; Sulkin 2001; Goldstein and Freedman 2002).

[Table 3 About Here]

We suspect a number of other variables influence technological choice and we include these in our analyses as controls. This includes the candidate's party, since Democrats and Republicans may differ due to differences in their party culture (e.g., Galvin 2010; Bernstein, Bromley, and Meyer 2006), emphasis on individualism (e.g., Kohl 1989; Gerring 1998), and/or strategies for micro-targeting (e.g., Ubertaccio 2007). Also, to isolate the independent effect of candidate status (e.g., incumbent, challenger, open-seat), we control for whether the candidate is a clear front-runner (with a three point variable distinguishing clear trailer, neither trailer nor front-runner, and clear front-runner) and whether he or she has held prior office (a dichotomous variable for holding prior office).[6] We suspect it is

[6] We measure front-runner status by taking the difference between a candidate's support (measured in the proportion of the vote he or she received in the election) and the support for his or her opponent, and then creating three categories of "clear front-runner," "not clear trailer or front-runner," and "clear trailer" (e.g., Skaperdas and Grofman 1995; Lau and

incumbency status—because the incumbency cue carries weight even on those rare occasions where the incumbent is not the front-runner—that diminishes the appeal of technologies.

We also will control for candidate gender in that it could generate different approaches to campaigning (see, e.g., Gulati and Treul 2003; Kahn 1996; Puopolo 2001) and office (a dichotomous variable for Senate) since the larger Senate constituents may mean greater incentive to offer innovative and personalized technologies (see, e.g., Bimber and Davis 2003, 26-7; Dulio, Goff, and Thurber 1999). Finally, at the district/state level, demand effects, such as income (median family income), education (percentage of individuals with at least a high school education), and possibly even partisan support (percentage Republican), may influence candidates' technology decisions, pushing some to create sites more in line with their constituents' characteristics (see Bimber and Davis 2003, 104-7; Foot and Schneider 2006, 171; also see Druckman, Kifer, and Parkin 2009 for further discussion and motivation of these controls).[7]

Results

We report our results in two sections. First we offer some descriptive data on over-time trends for each of our dependent variables. We then turn to our main analyses to test our hypotheses.

Pomper 2004, 35; Buell and Sigelman 2008). Our front-runners won by at least 10% while our trailers lost by at least 10%. Others were in the middle category.

[7] We measure District/State Republican Vote with the percentage of votes in the district/state cast for John McCain in 2008 (Lau and Pomper 2004; Carson, Engstrom, and Roberts 2006).

Over-Time Trends

As we noted, the relatively low levels of technological usage (see Table 2), cohere with prior year campaign practices. Here we turn to the question of whether the levels change over the course of the campaign itself: did the 86% of sites that updated information significantly change technological features?

We address this question by using the sub-sample of sites (n = 137) that we coded at three points in time: wave 1 between September 1st and September 30th, wave 2 between October 1st and October 15th, and wave 3 between October 16th and Election Day. In Figure 1, we report the average values of the variables (other than external links) at each wave.[8] Our wave 3 means differ from those found in Table 3 because the Table reports means from all 402 sites coded at wave 3 whereas, to ensure comparability in the sample, the Figure reports the means from the 137 sites coded at each wave.

[Figure 1 About Here]

Clearly, Figure 1 reveals a tremendous amount of stability across waves—campaigns display scant over-time change in the features available on their sites. The only exception is multi-media where we find a significant over-time increase in the number of videos and audios available (Wave 1 compared to Wave 3 gives t_{273} = 1.92; $p \leq .05$ for a two-tailed test). This result, actually, confirms our earlier portrayal of multi-media as a technology that requires resources, since campaigns

[8] The Figure excludes the external links variable, given that it is on a very different scale; the respective wave means for external links are: 5.00, 4.63, and 4.60. Standard deviations and formal statistical tests for over-time change are available from the authors.

view multi-media as a technology that needs to be timely. Overall, the over-time results give us confidence that the upcoming multi-variate tests of our hypotheses, using the full set of wave 3 sites, generalize across the campaign. (The sub-sample coded three times is too small for multi-variate analyses, given the need for the extensive control variables.)[9]

Technology Use

We test our hypotheses by regressing each of our dependent variables on our key independent variables—candidate status, funds raised, and race competitiveness—as well as the control variables described in Table 3. We report the results in Table 4 (for content interactivity) and Table 5 (for inter-personal interactivity and presentation).[10]

[Tables 4 and 5 About Here]

We see that, in *every case*, both the challenger and open-seat variables are significant and, except for partisan links, positive. As predicted, these candidates employ technologies to a greater extent than incumbents, reflecting their greater tolerance for risk and incentive to actively campaign and stimulate voters' attention

[9] When we analyze the smaller sample of sites, our findings are consistent with what we report below on the wave 3 sample; however, statistical significance is less apparent due to the small sample.

[10] We also ran a regression that used the log of external links at the dependent variable and a regression for blog interactivity that included only sites that had blogs in the first place. Both these alternative specifications are consistent with what we report for these variables in Tables 4 and 5. We use one-tailed tests since our predictions have clear directional content (Blalock 1979, 163).

(also see Druckman, Kifer, and Parkin 2009). The negative coefficients on the partisan links variable also is as we predicted; incumbents have less to fear by tying themselves to their party and may in fact have reasons for doing so that go beyond re-election (e.g., power in Washington). In short, political strategy determines the application of technologies, suggesting that dynamic, interactive technologies are far from a deliberative panacea equally accessible to voters. Instead, the availability of these technologies varies and, in fact, voters are less likely to have the opportunity to engage with the very candidates most likely to represent them (i.e., incumbents).

Technological use also depends on resources (i.e., funds raised) and competitiveness. The results support each of our funds and competition predictions. Campaigns with more money are significantly more likely to employ technologies that require active updates throughout the campaign: personalization, new information, and multi-media. Each of these technologies requires resources to support collecting information that can be added to the site (so as to personalize the site, update the sites' content, or post new media). This again speaks to inequities in what campaigns provide—only campaigns with more resources can keep voters posted on the latest developments. Although not formally predicted, we also find that fundraising significantly increases the likelihood of including more external links and allowing visitors to post in more dynamic ways on the website's blog. We suspect the links finding reflects the need for resources to keep tabs on each link's content (so as to ensure the links are not deleterious to the campaign) while the blog finding stems from resources needed to construct (and possibly monitor) more advanced blogs. It is also possible that abundant resources serve as a buffer to the risks that might deter other, less well-heeled candidates.

As predicted, competition drives down the use of any technology that constrains the campaign's ability to control their message, including external links, partisan external links, inter-personal communication options, and blog interactivity options. When the outcome of a race is tight, candidates avoid the risk of being misrepresented by a message that they do not control. Moreover, since competition itself prompts attention (Chong and Druckman 2010; Bowler and Donovan 2011), campaigns presumably see less need to use interactive technologies that can stimulate attention. We also see that competition leads to significantly more personalization and multi-media, suggesting that while campaigns cut off others from communicating, they increase their own communications.

We otherwise find the occasional control variable to be significant, particularly those involving district/state level demographics. Interestingly, we do not see consistent differences for Senate candidates or female candidates. While party identification is sometimes significant, its impact is nowhere near as consistent as candidate status. This suggests incumbency status is more important than partisan affiliation in determining campaign style when it comes to technology use in congressional elections.

Overall, our results leave little doubt that the application of communication technologies is a part of a larger campaign strategy. Candidates do not simply use technologies because they are promising and available. Instead, they employ them in fairly small amounts and do so strategically, only when it appears to be in their political interests (and they can afford) to do so and the relative risks are offset by clear advantages.

The effects of candidate status, funds raised, and race competitiveness are substantial. In Table 6, we report the probability shifts due to changes in each of our key variables, holding all other variables at their mean values.[11] For example, the first column reports the increase associated between shifting from incumbent to challenger status and having the given technological feature (listed in the row). The second column does the same for the shift from minimum to maximum funds raised, while the third does so for a shift from the least to most competitive race. We recognize that we are investigating the extreme values in these cases, but the dramatic impact of these shifts speaks to their general substantive importance. Indeed, in every case, the increase or decrease associated with a change in the independent variables is large—such as the 11% increase in having a personalization option due to a shift from incumbent to challenger status, or the 18% decrease in having one or more partisan links with the shift from least to most competitive. Clearly, these effects matter.

[Table 6 About Here]

Conclusion

The Internet provides candidates with new opportunities to connect with voters in ways that could change the nature of candidate-voter interactions. Our results show, however, that the decision to use these technologies is driven by political and practical considerations. Candidates tend to employ technology selectively, weighing the risks and rewards of particular new media capabilities.

[11] We compute these probabilities using *Clarify* (Tomz, Wittenberg, and King 1999); standard errors are available from the authors.

They tend to shy away from interactive features when they are safe incumbents or as races tighten, and they do relatively little to update information when they do not have a large campaign coffer. While we are certainly not the first to question the overly-rosy portrayal of the Internet fostering idyllic deliberative exchanges, we move beyond prior work by identifying the precise political and practical determinants of technology use in Congressional campaigns.

These results have important implications for the relationship between candidates and the thousands of voters who now routinely visit their websites (Williams 2003; Smith 2011). Perhaps most interesting is the finding that incumbents do so little, relative to challengers and open-seat candidates, to update and engage website visitors. Whereas challengers eagerly adopt new technologies, incumbents generally use the web as a static electronic brochure and are unwilling to take rhetorical risks online just as they might in the offline world. They are significantly less likely to act in ways that would signal their interest in communicating with voters and getting their feedback. This should be particularly discouraging for supporters of deliberative democracy, given that most incumbents will be reelected and thus go on to represent these voters—voters with whom they have had little meaningful online interaction over the course of the campaign.

Our findings also show that, at least for candidate websites, money can facilitate the inclusion of features that enhance candidate-voter interactions—they are particularly key to keeping voters updated about the campaign. The flip side of this, of course, is that underfunded campaigns will struggle to provide timely information, leaving at least some supporters with little sense of how the campaign is progressing. Inequities in campaign finance can hamper voters' ability to get real

time updates from all candidates, even on websites, which are often seen a way to connect with voters in a timely and ongoing fashion.

Finally, although race competitiveness is generally thought to be a good thing because it increases voter interest (Chong and Druckman 2010, Bowler and Donovan 2011), it is something of a double-edged sword in the context of campaign websites (see McDonald and Samples 2006). On the one hand, tight races lead candidates to present more up-to-the-minute information, which is good because it means that interested voters can stay on top of campaign events. On the other hand, race competitiveness causes candidates to be much more cautious and thus less willing to offer opportunities for real interaction. Candidates in tight races do not want to give up message control so they rely on one-way communication where voters are asked to receive the message without a chance to control the content or given a forum for reaction. Competition, therefore, stimulates voter interest but it leads candidates to create websites that fail to fully harness the potential of this heightened interest.

Technology decisions, like other campaign decisions, are influenced by practical and political concerns. The reality is that despite all their potential, candidate websites utilize opportunities for interaction and updating only when they are feasible and in the best interest of the campaign. Voters may be clamoring for these opportunities but, ultimately, candidates approach the web as they do any other communications medium—with a strict focus on winning the election.

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