

## **What Drives Politicians' Online Popularity? An Analysis of the 2010 U.S. Midterm Elections**

Cristian Vaccari (Royal Holloway) and Rasmus Kleis Nielsen (Roskilde and Oxford),  
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### *Abstract*

The number of website visits, Facebook friends, or Twitter followers that politicians attract varies greatly, but little is known about what drives politicians' online popularity. In this article, we use data from a systematic tracking of congressional candidates' popularity on four web platforms in the 112 most competitive congressional districts in the 2010 U.S. midterm elections to address that question. Using multivariate regression models, we show that while district-level socioeconomic characteristics have little effect on candidates' online popularity, challengers and candidates in open-seat races tend to attract larger audiences online, as do candidates who are more visible on political blogs. Surprisingly, how intensely candidates are covered in news media, how popular they are in opinion polls, and how much money they spend during the campaign show no significant effect. These findings help us understand the dynamics of internet politics, and have wider implications for candidate competition and party politics.

### *Introduction*

Since the 2006 US congressional midterm elections, when the first candidates embraced MySpace and Facebook and began using YouTube, political campaigns in the United States and around the Western world have 'invaded' various social networking sites (Keen 2006) and expanded their web presence by integrating a whole new range of internet tools in their

multi-layered communications strategies (AUTHOR). During the 2008 US Presidential election, Barack Obama's campaign set a new standard for digital communications, operating not only a website (barackobama.com), a campaign social network with about 2 million user-generated profiles (my.barackobama.com), a Facebook page with 2.4 million supporters, a Twitter account, and a busy YouTube channel, but also profiles on other, more targeted social media sites such as MySpace, LinkedIn, Meetup, BlackPlanet, AsianAve, MiGente, Eons, and many others (Cogburn and Espinoza-Vasquez 2011). The John McCain campaign used a similar suite of tools, but with less success. Obama got 16% more votes than his Republican rival, but had many times more followers on most social media sites—4 times as many on Facebook, for example.

By the time of the 2010 US congressional midterm elections, most competitive campaigns strove to build a wide web presence, and candidates integrated Facebook, Twitter, and YouTube as well as websites in their attempt to drive their message, influence media coverage, raise money, and attract online supporters, followers, and viewers. Judging by their popularity across these platforms, they did so with widely varying success. Most candidates for federal office have embraced the most popular social media (Gulati and Williams 2011; Xenos and Pole 2011) and many Americans have become social media users (Smith 2011a). But as we will show, social media users have embraced only some candidates. Wide disparities in online popularity are not limited to high-profile Presidential contests like the one between Obama and McCain. Some 2010 candidates for the House of Representatives, like Michele Bachmann (R-MN) and Alan Grayson (D-FL) attracted people in the tens or even hundreds of thousands online. But most candidates managed to attract only a few thousand, and many counted their online supporters in the hundreds. Little is known about why. That is the question we address in this article, where we use data on district, candidate, and media-level variation covering 224 Democratic and Republican candidates from 112

competitive House districts to identify the key drivers of politicians' online popularity across campaign websites, Facebook profiles, Twitter accounts, and YouTube channels. Analyzing candidates' numbers of unique visitors, supporters, followers, and viewers across these four platforms as dependent variables in multivariate ordinary least square regression models, we show that district-level variables play no major role in explaining politicians' popularity, confirm previous results showing that challengers and candidates for open seats tend to attract more attention than incumbents, find that candidates that spent more money and have more developed campaign websites do significantly better on Facebook than others, as do—across all four platforms—those who are mentioned often on top political blogs (like Daily Kos and Hot Air). Surprisingly, popularity with the electorate in opinion polls and volume of coverage in mainstream news media does not seem to drive online popularity once these other factors are controlled for. Candidates' ability to attract and retain attention on various online platforms is thus much more tightly tied to their success in other online environments than to more traditional offline indicators of success and effort. These findings help us understand the dynamics of digital politics as important and partially distinct arenas of campaign activity, and also have, as we will explain, wider implications for political competition and party politics.

In the first part below, we review recent research on the use of social media for political purposes by campaigns and citizens and make the case for turning from studies of supply (campaigns' adoption) to also examining demand (citizens' engagement) and outline a number of hypotheses to be tested. Second, we describe the reasoning behind our research design, dataset, and the sources that we used, including limitations of the strategy adopted. Third, we present our findings in terms of each of the four online platforms considered here: Facebook, Twitter, YouTube, and websites. Fourth, we discuss the wider implications of our findings before summarizing and concluding.

### *Online Campaigns—from adoption by candidates to citizens' engagement*

Because most research on online campaigns has focused on the supply side (campaign activities) rather than the demand side (citizens' engagement), little is known about what drives differences in politicians' online popularity. It is well known that social media sites are increasingly popular. In 2010, the Pew Internet and American Life Project reported that 75% of US adults were internet users and that about 45% of them used one or more social networking sites (Smith 2011a, p. 3). This popularity has given campaigns a clear incentive to embrace these tools, and studies of dissemination have documented the widespread adoption of social media for political purposes (but also that dissemination is not even across the board and thus may influence various forms of political competition). For instance, Gulati and Williams (2010a; 2010b; 2011) have examined the spread of Facebook, Twitter and YouTube use amongst candidates for the House of Representatives in 2008 and 2010, and found that while district demographics had little impact, the amount of money raised by candidates and their record of technology use in past campaigns had a significant positive impact on adoption. They also found Republicans to be more likely than Democrats to be on YouTube, but not on Facebook and Twitter, and that incumbents are more likely than challengers to adopt Facebook and YouTube, but less so for Twitter. Xenos and Pole (2011) analyzed the online campaigns of House, Senate, and Gubernatorial candidates running in 2010 and found that major-party candidates and especially challengers and open-seat candidates in competitive races, were more likely to go beyond simply having a website by building a presence on various social media platforms. (The finding that such candidates are more inclined to embrace new social media than incumbents mirrors findings from previous research focused on candidate websites. See for instance Druckman, Kifer and Parkin 2007 and Herrnson et al. 2007.) These studies have generally supported the idea that campaigns are

adopting an ever-wider range of internet tools and that as they do so they learn from and imitate each other but also take into account their own tactical concerns and each technology's specific features (Howard 2006, see also Esterling et al 2011 and Kreiss 2012).

However, the widespread dissemination of these tools amongst both candidates and citizens has not yet led to consistently high levels of communication between them on these platforms. Among adult internet users, 22% reported using Facebook, Twitter or MySpace to engage with the 2010 campaign in one way or another and only 7% signed up with a candidate or group involved in the election (Smith 2011b, p. 2). (While social media sites are used by more Americans than printed newspapers, more citizens get political information via printed newspapers than via social media sites (Smith 2011a).) Furthermore, overall numbers on how many people engage with politicians via various internet platforms hide huge disparities from social media site to social media site, candidate to candidate, and campaign to campaign. Highly popular candidates ranging from Barack Obama at the Presidential level to Michele Bachmann and Alan Grayson at the Congressional level have illustrated that some politicians can indeed reach large numbers of people via web 1.0 and 2.0 tools. But, as our data show, most politicians attract much more modest online followings. The average 2010 candidate for the House of Representatives gathered supporters in the thousands, not the tens of thousands (AUTHOR). Figure 1 below uses data on the number of Facebook "likes" to illustrate how differently different candidates fare, ordering the 222 candidates using this tool by their number of supporters, from the highest (Bachmann with 139,203) to the lowest (Ann Kirkpatrick with 43). As the summary statistics provided below show, the basic "big-head, long tail" pattern is similar across all four platforms covered here.

FIGURE 1 ABOUT HERE

Despite the huge disparities in how popular different politicians are online, surprisingly little is known about what drives their popularity. These differences matter for the dynamics of political competition, and campaigns care about them. Online support can help candidates disseminate their message, influence media coverage, raise money, and mobilize volunteers (Bimber and Davis 2003; Foot and Schneider 2006; Haynes and Pitts 2009). An enduring theme in research on digital politics is the ‘politics as usual’ or ‘normalization’ hypothesis—the idea that digital media do not alter, but rather reproduce, offline disparities (Margolis and Resnick 2000). Some researchers, however, have noted that Democrats generally outperformed Republicans online in the United States, at least for much of the period from 2004 to 2008. Kreiss (2012) has argued that the losing 2004 Howard Dean campaign bequeathed a suite of superior tools to later Democratic campaigns. AUTHOR has shown that Democratic candidates campaigned more intensely online than their Republican counterparts during the 2008 Presidential primaries. Democratic supporters have been found to be more active on social networking sites during the 2008 general election campaign (Steger, Williams and Andolina 2010).

Karpf (2012) has suggested that Democrats’ apparent online edge in this period can be explained with reference to the incentives faced by challengers and incumbents respectively, arguing that the party that is out of power has greater incentives to innovate, and thus to embrace newfangled online tools. (As Duverger (1954) showed long ago, challengers sometimes develop tactical and organizational advantages that are only slowly embraced by incumbent, dominant parties.) The idea that challengers are generally ahead online is particularly important from the standpoint of political competition at the Congressional level, where high levels of online support may help challengers counter the many electoral advantages that incumbent representatives enjoy in the US in the form of higher name recognition, more media coverage, better fundraising, and generally superior organization

(Jacobson 2009). Two important qualifications in this regard are the fact that financial resources are often found to be positively correlated with candidates' use of social media (Gulati and Williams 2010a; 2011) and that research by Gonzalez-Bailon (2009) suggests that attention structures online are often driven in part by visibility in various forms of legacy media.

Because more and more politicians and people use these tools, and because their patterns of use can influence the dynamics of political competition, it is important to understand why and under what circumstances candidates become popular online. By doing this, we will be able to move beyond looking at the *supply* side of digital politics and develop a better understanding of the dynamics of the *demand* side, where citizens acting in a high-choice media environment (Prior 2009) and with uneven and often low levels of political interest (Hibbing and Theiss-Morse 2002) decide to follow some candidates and not others, thus, other things being equal (they never are entirely), strengthening their electoral prospects.

Based on our review of existing research we consider a range of possible determinants of politicians' online popularity and use data on the popularity of a purposive sample of 2010 candidates for the House of Representatives to test their explanatory power. Focusing on American politics and keeping the national context, media environment, and political system constant, we examine the relationships between online following and three kinds of variables: district-level variation, candidate-level variation, and variation in terms of media coverage. In line with work focused broadly speaking on digital divide issues, we consider whether candidates in districts whose socio-demographic characteristics are associated with greater use of the internet are more likely to be popular online (H1). At the candidate level, we investigate the merits of five related hypothesis derived from the literature discussed above. First, we want to test whether the party out of power is more innovative and benefits from

having supporters who engage more with web-based campaign platforms (H2). (If so Republican candidates should be more popular than Democratic ones in 2010, reflecting superior campaign efforts on their part and greater engagement among their supporters.) Secondly, based on evidence from previous studies, we expect that challenger and open-seat candidates will gather greater online followings than incumbents, regardless of their party affiliation (H3). In addition, we want to assess the impact of various offline factors on online popularity, which in turn involves, thirdly, whether candidates' standing in opinion polls is correlated with their popularity on the web (H4); fourthly, whether the amount of resources they spent throughout the campaign drives their online support (H5); and, finally, whether the degree of professionalism with which they ran their web campaigns made any difference in terms of their online popularity (H6). Finally, at the level of media coverage, we ask whether and to what extent visibility on the most relevant political blogs (H7) and on national and local mainstream news media outlets (H8) helped candidates draw people to their online presence. We are thus interested not only in the isolated effects of these different media outlets, but also in their relative strength and interplay with other variables.

### *Research design and data*

To identify the key drivers of politicians' online popularity across websites, Facebook, Twitter, and YouTube, we collected data on 224 major-party candidates (Democratic and Republican) running in 112 comparable competitive Congressional districts in the 2010 US midterm elections. We sampled our districts well in advance of the election without knowing anything about the character of the candidates and campaigns so as to avoid the tendency to analyze the role and implications of new information and communication technologies primarily on the basis of post-hoc analysis of a few individual spectacularly successful campaigns (such as the much-discussed 2004 Dean campaign or the 2008 Obama campaign).

To control for district size, we included only House races. To be in a position to systematically analyze the drivers of politicians' online popularity, we targeted a large number of comparable, high-stakes, well-resourced races in which one would expect candidates and campaigns to have both the incentives and the means to make full use of all tools at their disposal and where citizens are more attentive and engaged than in non-competitive districts. We are thus focusing on candidates who are likely to actually use various internet tools and who are likely to try to build their online popularity, because they face meaningful competition for the seat they seek. (Clearly, some individual politicians running in one of the districts not included here will have substantial followings online. It will take further research to establish whether one can account for that support through the models we develop here.) For those interested in the potential electoral impact of various internet tools, analyzing candidates engaged in competitive elections is a good place to start. So, using the mid-August prospective ratings of districts by the *New York Times*, *Congressional Quarterly*, the *Cook Political Report* and *Real Clear Politics*, we included in our purposive sample any district that was classified by any one of these four handicappers as either 'toss up', 'lean Republican' or 'lean Democrat', while excluding all districts that were unanimously classified as 'safe' or 'solid' for either party. This gave us a total 112 Congressional districts in our dataset that were considered competitive by at least one of the sources above.<sup>1</sup> We focused on Democratic and Republican candidates only, thus excluding minor-party candidates, whose relative lack of resources and low public profile strongly

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<sup>1</sup> The Congressional Districts included are: Alabama 2 and 5; Arkansas 1, 2, 3 and 4; Arizona 1, 5 and 8; California 3, 11, 18, 44, 45 and 47; Colorado 3, 4 and 7; Connecticut 4 and 5; Delaware at-large; Florida 2, 8, 12, 16, 22, 24 and 25; Georgia 8 and 12; Hawaii 1; Iowa 1 and 3; Idaho 1; Illinois 8, 10, 11 and 14; Indiana 2, 8 and 9; Kansas 3 and 4; Kentucky 3 and 6; Louisiana 2 and 3; Maryland 1; Massachusetts 10; Michigan 1, 7 and 9; Minnesota 1 and 6; Mississippi 1; Missouri 4; Nevada 3; North Carolina 2, 8 and 11; North Dakota at-large; Nebraska 2; New Hampshire 1 and 2; New Jersey 3, 7 and 12; New Mexico 1 and 2; New York 1, 13, 19, 20, 23, 24, 25 and 29; Ohio 1, 6, 13, 15, 16 and 18; Oregon 5; Pennsylvania 3, 4, 6, 7, 8, 10, 11, 12, 15 and 17; South Carolina 5; South Dakota at-large; Tennessee 4, 6 and 8; Texas 17 and 23; Virginia 2, 5, 9 and 11; Washington 3 and 8; Wisconsin 3, 7 and 8; West Virginia 1 and 3.

diminishes their online presence, as other research has shown (Margolis, Resnick and Levy 2003; Xenos and Pole 2011).

It is important to note here that although we adopted a most-similar design focused on competitive districts only, reasoning that the resources and stakes involved would demonstrate online campaigning at the cutting edge and give citizens both opportunities and incentives to engage, not all of the races were equally competitive. The mean vote margin in all 112 races in our sample was 9.9% and the median was 9.3%. About one-fourth of the races we included were resolved by a margin of 5% or less, around one-third were decided by less than 10% and the rest by more than 10%. We are, however, confident that relying on *prospective* competitiveness allowed us to select races that were comparable in terms of candidate efforts and voter interest. (There are, as the saying goes, only two ways to run—scared or unopposed.) We have thus excluded from our analysis non-competitive districts where the dynamics of who gets attention and why are likely to be at least partially different. (Clearly a topic that deserves further attention.) Moreover, adopting an inclusive sampling strategy allowed us to include a sizable number of races, which warrants statistically firmer conclusions than would have been possible with a smaller set. That being said, in our analysis we control for the differential levels of actual competitiveness in our races by including a variable measuring the final vote margin in each district.

In each district, we mapped the candidates' online followings across four platforms: their personal websites, their profiles on Facebook and Twitter, and their channels on YouTube. We included websites to be able to assess differences and similarities between what is sometimes thought of as web 1.0 versus 2.0 tools. We did not include the declining MySpace platform or smaller or less popular networks like MeetUp, LinkedIn, and Vimeo. The data analyzed in this paper was collected in the final stage of the campaign between November 1 and 2, when the election was held. (The complete set also includes data on

popularity in early September and early October.) Our coding frame was structured as follows:

- For *campaign websites*, we obtained the site's URL through a basic Google search and an estimate of its unique monthly visitors from the publicly available 'Site Analytics' service provided by the market research firm Compete.com.<sup>2</sup>
- For *Facebook profiles*, we obtained the profile's URL via direct links from candidate websites or, absent these, from a direct search for the candidate's name on Facebook. We then coded the number of 'likes' (or 'friends', in the rare instances in which a candidate had a personal rather than a public page) for that profile. In case a candidate maintained multiple official profiles, we coded the profile that the campaign website linked to.
- For *Twitter profiles*, we followed the same procedure to identify them and coded the number of 'followers' for each candidate profile.
- For *YouTube channels*, we followed the same procedure to identify them and coded the number of 'total upload views', which is the sum of all views of all the videos uploaded to a given channel. (By subtracting the number of viewers in early October from the number of viewers in early November, we got a figure for the Election-day popularity of a given candidate on this platform, rather than the cumulative number of viewers over the years.)

The data we rely on here has varying degrees of validity. Different measures of website traffic exist and have varying advantages and disadvantages. Most are unreliable when unique visitors are relatively few. We use Compete because this service is freely available

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<sup>2</sup> www.compete.com (accessed September 26, 2011). Estimates of site traffic were usually available in the following month, so we completed the data collection for this variable in December 2010.

and our results can thus be easily replicated. The data collected on social media sites is generally behavioral and should thus be considerably more valid indicators of the online popularity of a given candidate (though there have been cases of politicians, most prominently former House Speaker Newt Gingrich, who have allegedly paid ‘follow agencies’ for generating thousands of fake user accounts to create the appearances of online support for a particular campaign). We believe all the data is still solid enough to identify overall patterns even if some particulars on closer scrutiny may be somewhat questionable.

The coding was performed by the authors, one of which coded all Republican candidates in the 112 districts, while the other coded all Democratic candidates. To assess intercoder reliability, we randomly sampled 10% of the districts at each longitudinal stage and each author coded the websites that the other had coded. With respect to candidates’ popularity on social networking sites, the coders were in disagreement in identifying the relevant profile in only 2 out of 62 candidates for Facebook, 2 for YouTube, and 1 for Twitter. When differences between the coders emerged, they were discussed and resolved by consensus, resulting in standard operating procedures that were employed in subsequent coding, contributing to increased reliability.

Below, we present four multivariate ordinary least squares regression models aimed at identifying what drives politicians’ popularity on each of the four platforms (coded as the dependent variable). Treating each platform separately allows us to assess similarities and differences across these specific realms rather than conflating different campaign environments into one oversimplified rubric. Because the distribution of all four dependent variables was extremely skewed, we transformed their values into their logarithmic functions, which more closely resembled a normal distribution and thus lends itself to regression analysis. Our independent variables include data on district, candidate, and media coverage variation, as required for testing our hypotheses. At the district level, we include data from

the US Census on the median age of residents, the percentage of population holding a college degree or higher qualification, the median family income (in thousands of dollars), the percentage of residents who are white, the percentage of population living in rural areas, and the final vote margin for the Congressional race in 2010. In terms of candidate-level characteristics, we included party affiliation and challenger or open-seat candidate status to test the effects of incumbency and in-party membership. To assess the relationship between candidates' competitive standing and online following, we also included variables measuring candidates' predicted vote shares according to pre-election district-level polls (taken from the *New York Times*' Poll Watch), the total amount of money that they spent throughout the 2010 cycle (from Opensecrets.org), and, as an indicator of the overall professionalism of their online campaigns, the amount of engagement functions that could be found on their websites.<sup>3</sup> Finally, for media coverage, we measured the number of times in which each candidate was mentioned throughout 2010 on the most relevant five liberal and five conservative political blogs<sup>4</sup> (as indicators of political online media coverage) and in the Associated Press national and local wire services (as indicators of 'mainstream' news media

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<sup>3</sup> We coded official candidate websites for the following 13 functions: donate money; volunteer; find events; organize events; forward the page to friends; mobile phone interaction; share or link the website on any social network; 'donate your status' on any social network; find your polling place; register to vote; link to Facebook page; link to Twitter profile; link to YouTube channel. The variable measures the number of these functions each website offered, so values range from 0 to 13. The empirical distribution ranged from 2 to 11 and the median candidate had 6 functions on his/her website.

<sup>4</sup> The top liberal and conservative political blogs were identified based on the November 2010 rankings of David Karpf's Blogosphere Authority Index. These are, respectively, The Huffington Post, DailyKos, Talking Points Memo, Firedoglake, and Atrios (liberal) and Hot Air, Big Government, Townhall, American Thinker, and Ace Of Spades HQ (conservative). See [http://www.blogosphereauthorityindex.com/default.asp?archive=bai\\_Nov212010.mdb](http://www.blogosphereauthorityindex.com/default.asp?archive=bai_Nov212010.mdb) (accessed on 3 February 2012). For each blog, we ran advanced searches with Google with each candidate's first and last name and the word 'Congress' as the text search string and the blog's URL as the domain; the search was limited to the period 1 January – 1 November 2010. Because the average number of mentions for any candidate was greater among liberal than conservative blogs due to the differences in the amount of contents published on these particular blogs, we standardized the values of mentions for liberal and for conservative blogs. The variable is thus the sum of the standardized number of 'hits' that Google returned for each candidate's name on all five liberal and all five conservative blogs.

coverage).<sup>5</sup> (Analysis of Variance Inflation Factors in the model presented in table 2 below suggests that multicollinearity does not affect the precision and reliability of our estimates.)

### *Explaining uneven popularity across online platforms*

Before we present our models and address our hypotheses and research questions, a brief examination of the distribution of the data allows us to show just how widely varying politicians' online popularity is, even within our most-like purposive sample of House candidates running in similarly competitive districts (see table 1).

#### TABLE 1 ABOUT HERE

Consider first Facebook, the most popular social networking site in the United States in 2010 with an estimated 125 million active users. All but two of 224 candidates in our sample had a presence on it. The median number of Facebook supporters was 1,806 by Election Day; however, the most popular 10% of candidates had about seven times more supporters than the least popular 10%. The median candidate had just 365 followers on Twitter, which, with tens of millions of user accounts, was the third-most widely used social networking site in the United States in 2010 (after Facebook and MySpace). Of the 203 candidates who had profiles on this platform, the most popular 10% had followings eighteen times larger than the least popular 10%. Among the 217 candidates who had a YouTube channel, the median candidate generated a total of 2,198 views across all their posted videos between early October and early November, and the top 10% channels garnered as many as thirty-three times more

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<sup>5</sup> For each candidate, we ran two separate Lexis-Nexis searches, one with 'The Associated Press Online' set as source and the other with 'The Associated Press Local & State Wire'; in both searches, the text search string included the candidate's first and last names and the word 'Congress' and the time frame was set from 1 January until 1 November 2010. Because the distribution of the variables was highly skewed, we standardized their values before entering them in the regression models.

views than the bottom 10%.<sup>6</sup> All 224 candidates had a campaign website. According to Compete, the median site attracted 1,516 unique visitors in November and the 10% most visited sites received almost twenty times more traffic than the 10% least visited ones. Standard deviations for all four platforms confirm that online popularity was very unevenly distributed within our sample despite the fact that we have purposefully sampled for most-similar cases in terms of district size and competitiveness. None of the traditional measures of campaign competitiveness, like money spent or votes won, are so unevenly distributed.

The factors behind these differences deserve closer scrutiny. For this we turn to our statistical models, which include the district, candidate, and media coverage variables outlined above. Table 2 presents the results of four multivariate regressions that we built to test our hypotheses and answer our research questions regarding the factors that drive candidates' online popularity. The models explain between one-third and one-fourth of the total variance, an overall satisfactory result, especially in light of the wide variation found within our sample.

#### TABLE 2 ABOUT HERE

When both district features, candidate characteristics, and different kinds of media coverage are taken into account, the former turn out to be much less predictive of online popularity than the latter two. Only website traffic seems to be somewhat affected by district-level variation—in median income and rural population—and the percentage of the population

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<sup>6</sup> The fact that these numbers are higher than those for Facebook and Twitter does not necessarily mean that candidates attract substantially more attention on YouTube compared to other online campaign channels. While one can only 'like' or 'follow' a candidate once on Facebook and Twitter (and can stop doing so), and while the measure of website traffic involves unique monthly users, the total number of views on a candidate's YouTube channel is cumulative over time and additive across all videos uploaded. As most campaigns host dozens of videos on their YouTube channels, the total views of videos on their channels are in all likelihood considerably higher than the number of unique video viewers. A measure of the latter is, unfortunately, not available to the public and is only poorly represented by the number of channel subscribers, as very few people subscribe to YouTube channels.

with a college degree affects only the number of Facebook supporters (a remnant, perhaps, of the fact that this particular social network originally was for college students alone). Other than that, district-level variables have no effect on candidates' online popularity.<sup>7</sup> The fact that the coefficients for the vote margin control variable fail to approximate statistical significance suggests that the different degrees of actual competitiveness in our sampled districts did not affect the validity of our results.

It is, instead, at the candidate level that we find the most remarkable correlations. As predicted, challengers achieved significantly greater popularity on all platforms apart from YouTube. (This is probably in part because many incumbents use their YouTube channels throughout their terms to post videos with floor statements, television interviews and constituency visits. By election time, they tend to have more content on their YouTube channels, which all else considered helps their total views keep up with challengers'.) Open-seat candidates were more popular than incumbents on Facebook and Twitter, which also confirms our expectations, but their YouTube channels and websites did not attract significantly larger audiences. Furthermore, Republican candidates benefitted from the positive climate for their party and greater excitement among their supporters—or, perhaps more accurately, the negative sentiment towards their opponents—and were more popular than Democrats on all four platforms, with significant coefficients for Twitter (where Republicans established themselves as early adopters after losing the majority in Congress in the 2006 midterm elections) and website traffic. Taken together, these findings lend support to Karpf's (2012) out-party innovation incentives theory and suggest that insofar as they can help candidates win, digital media can enhance electoral competition among Congressmen (at least in districts that are less than safe and within the long-standing major party duopoly that exists in the US).

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<sup>7</sup> Regression models including only district-level variables failed to achieve adjusted  $R^2$  coefficients above .1 for all dependent variables apart from website traffic, where the coefficient was .126, still much smaller than the explained variance for the complete model.

As is clear from table 2, the dynamics driving candidates' online popularity (and thus the implications for political competition and party politics) are different from platform to platform. Whereas candidates with good standings in the polls, well-stocked campaign coffers, and professional digital operations (as indicated by the number of functions on their websites) were significantly more popular on Facebook, none of these factors had any statistically significant impact on their number of Twitter followers or on their website traffic, and only the sophistication of their websites had a positive and significant correlation with YouTube video views. (This may be a reflection of the fact that candidates often embed YouTube videos on their websites so that richer websites may lead to more views of campaign videos.) Thus, one could legitimately argue that candidates' success on Facebook is to a large extent a reflection of money and voter support—offline factors and sources of competitive advantage that have little to do with campaigns' and their supporters' use of the internet. But candidates' popularity on Twitter, the number of visitors to their campaign websites and, by and large, the number of video views on their YouTube channels seems to depend on factors *other* than their campaign expenditures and popularity (as measured in opinion polls). In other words, the 'normalization' hypothesis goes some way towards explaining the online popularity of major-party candidates on Facebook, but not in other digital environments. This difference may in part depend on the fact that Facebook was the most popular social network among both voters and candidates in 2010 and thus, being closer to the mainstream of campaigning and a more 'mundane' internet tool (AUHTOR), its dynamics were more closely intertwined with offline factors than those in other channels of online electioneering.

If, apart from Facebook, politicians' online popularity is not significantly influenced by the money they spent and their popularity as indicated by their standing in opinion polls, what does affect it? One clear answer is at the level of media coverage. Candidates' visibility

on other online media sites—specifically, top political blogs—is the only variable that affects all four facets of candidate online popularity in a consistently positive, strong, and significant fashion (more so for Twitter and YouTube than for website visits and Facebook). In contrast, the number of times a candidate was mentioned on the Associated Press national or local wires showed no significant correlation with their popularity on any online platform.<sup>8</sup> Internet platforms are thus emerging as an increasingly autonomous media subfield, where candidates who manage to attract attention on a few high-profile outlets then benefit in terms of popularity in their wider online presence regardless of the amount of coverage they get on legacy mass media, their standing with the electorate, or, in many cases, the money they spend on televised advertising and field operations. Moreover, as several scholars have found in other contexts (Nahon et al 2011; Wallsten 2010), top political blogs emerge as the center of this digital media subfield, serving as crucial catalysts of attention among politically interested citizens and as gatekeepers to online success among candidates. While blogs today have lost some of their novelty, their role seems to be enhanced, rather than diminished, by campaigns and citizens’ increasing reliance on an ever larger variety of social media sites, because top blogs can direct attention in this fragmented environment. In sum, candidates striving to be noticed online have more to benefit from visibility in high-profile political blogs than from lavish advertising budgets on television or earned media coverage on mainstream journalistic outlets, reaching a broader (and presumably often less partisan and politically engaged) audience.

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<sup>8</sup> This finding may be at least partially related to the fact that mentions on Associated Press national and local wires may not be a perfect indicator of media coverage of Congressional candidates. To verify the validity and reliability of our indicators, we thus collected additional data on mentions of each candidate on American newspapers, broadcast news and cable news using the Lexis-Nexis database with the same search strings and time limits used to retrieve coverage on AP. However, almost no candidate got any coverage on broadcast news, and adding to our model the standardized variables for newspaper and cable news coverage did not significantly change our results. Because these additional variables were also strongly correlated with our AP measures, we decided not to include them in the final models out of concerns with parsimony and also to avoid multicollinearity issues.

### *Further factors, further research*

As made clear from the outset, virtually all candidates for federal office today are online and using social media, and most American citizens are online and many use social media. But relatively few candidates and citizens connect online, and some candidates are far more popular across the web than most of their peers. In this article, we have moved beyond studying the supply side of digital politics (that is, the dissemination of tools and techniques amongst campaigns), and focused instead on the dynamics of the demand side, on the drivers of citizens' attention to and engagement with candidates across different online platforms.<sup>9</sup> Our analysis identifies some common patterns across web 1.0 tools like websites and web 2.0 platforms like Facebook, Twitter, and YouTube, supporting previous work that highlights how challengers often do better online and also showing, surprisingly, that while mainstream news media coverage does not seem to drive politicians' online popularity, coverage on top political blogs consistently helps candidates catch attention. We have also identified important differences between the dynamics of attention on different online platforms. While popularity on Facebook is to some extent a reflection of popularity in opinion polls and how much a campaign is spending to promote itself through paid media, traffic to campaign websites depends more strongly on district characteristics. Incumbents' usage of YouTube during their terms puts them on a more equal footing vis-à-vis challengers on this platform than on Facebook, Twitter, and in terms of website traffic. These similarities and differences suggest that the many facets of online campaigning must be examined as specific domains to fully understand the dynamics that determine their uses by both candidates and citizens.

Although our analysis has clarified these and other issues, it also raises at least four further questions that we hope will be addressed by future research. The first question is how we get a better understanding of the ongoing interactions between campaign activities,

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<sup>9</sup> By 'demand' we mean candidates those citizens who do choose to engage with politicians online seem to prefer. The demographics, SES, and individual properties of the citizens who do so is a separate issue with well-known biases towards the more affluent, the more well-educated, and the younger.

candidates' popularity and success measured in general terms (like money raised and doing well in polls), and online support. We have treated the followings that candidates attracted on various platforms as dependent variables in our models, though we are conscious that some studies have found that online campaigning can have an independent effect on voting outcomes (Gibson and McAllister 2011; Gulati and Williams 2008) and that visibility on for example blogs may drive fundraising (Sides and Farrell 2010). It is clear that our understanding of the causal mechanisms driving politicians' popularity and success would be well served by studies that move beyond simple correlations and examine interaction effects over time, including attention paid to the efforts of campaigns themselves to actively engage their followers and attract people. The second question raised by our findings is what the relationship is between political polarization and different politicians' online popularity. The success of ideological outliers like Michele Bachmann, who had 139,203 Facebook supporters by Election Day in 2010 coupled with the long-established notion that online media are highly selective and may reward partisanship (Bimber and Davis 2003) suggest that polarizing figures may find it easier to garner large followings online than moderates, because most of the people who are motivated enough to make contact with politicians online are part of the partisan politically engaged communities that are fuelling the current polarization of American politics (Abramowitz 2011). Although we did devise some measures to test this hypothesis, they failed to significantly improve our models, probably in part due to the small number of cases in our dataset as well as the lack of reliable indicators.<sup>10</sup> This is another area calling for further research. The third question concerns the likely importance of the frequency and substance of candidates' online activities in accounting for

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<sup>10</sup> In particular, we employed measures of candidates' policy preferences based on their Congressional voting records, but they were of limited use given that, by definition, they are only available for incumbents, which excluded 133 of our 224 candidates, and 99 of our 112 Republican candidates. We also devised a measure of candidates' mentions on the major cable news talk shows, which are hosted by partisan figures and tend to attract highly ideological audiences, but this measure failed to improve our models' results and goodness of fit in any appreciable way, most likely because only a handful of candidates garnered the lion's share of visibility on these programs.

how many citizens they reach. Fully engaging with this issue would require extensive further data collection and ideally some form of content analysis. The fourth question our research raises concerns the external validity of our findings. Our analysis is focused on a sample from one election year in one country. It is not a given that the dynamics identified here are the same in non-competitive races, that they will be the same in the US in 2012 or 2014, that they are the same at the local and state level as at the federal level, or that they are the same in other countries. (The differences in popularity we have observed can be seen elsewhere too, for instance in the 2012 French presidential elections, though the numbers are intriguingly unlike what the US experience would lead one to expect—the losing incumbent Nicolas Sarkozy had more than 630,000 supporters on Facebook, the victorious challenger François Hollande had about 120,000.) This article thus represents one step towards understanding what drives politicians’ online popularity, but much more work needs to be done.

### *Conclusions*

In this article, we have analyzed the drivers of politicians’ online popularity and documented a very wide variation in major-party House candidates’ online popularity across 112 competitive districts in the 2010 US midterm elections. Using multivariate ordinary least squares regression models we have identified two factors as particularly important drivers of the variation observed—a candidate’s distance from power (challengers and those running for open seats do well) and how intensely a candidate is covered and discussed on the top political blogs. Other variables, such as district-level variation in income, education, etc and volume of coverage in traditional news media, had very little explanatory power, while campaign resources and a candidate’s standing in the polls only affected popularity on Facebook, but not on other platforms. These findings have important implications with

respect to party competition and the ecology of the contemporary political communication environment.

The fact that challengers, open-seat candidates and those from the party out of power (Republicans in 2010) were consistently more popular online than their peers stands in stark contrast to almost all other aspects of contemporary Congressional campaigns where endorsements, fundraising, and news media coverage all tend to favor incumbents (Jacobson 2009). Elected officials generally enjoy a number of built-in advantages when faced with challengers, but despite some tendencies towards ‘politics as usual’, online platforms—both web 1.0 tools like websites and the range of web 2.0 environments examined here—do not seem to favor sitting representatives. (The particular climate in which the 2010 midterm elections were held—characterized by hostility towards the Democratic Party and a large enthusiasm gap between Republican and Democratic supporters, which fuelled a historic 63-seat gain for Republicans—may have increased the magnitude of these effects.) Earlier studies have already shown that non-incumbents are more likely to adopt various types of digital media than other candidates. We have shown that citizens too are generally keener on connecting with challengers than with incumbents online, even when controlling for how popular each candidate is (as measured in opinion polls). While political competition was in some respects more ‘normalized’ on Facebook, the most popular web 2.0 platform among both candidates and citizens, challengers and open-seat candidates generally had more supporters than incumbents on this platform as well. If challengers continually and consistently are not only more likely to embrace new tools, but also more popular when they do so, the growing importance of online communications as parts of wider campaign strategies may help to somewhat counter the many incumbency advantages that have long characterized Congressional elections. (In 2010, the internet was, for the first time, the most

widely used source of campaign news for a significant group of voters, namely those aged between 18 and 29, more widely used than even television—see Kohut et al 2011.)

Our findings also suggest that while campaign resources and activities may become progressively more ‘normalized’ as both incumbents and challengers embrace new tools, importantly, citizens’ attention has not been normalized—that is, people are not particularly attracted to sitting representatives, or to candidates who spend large sums of money to court votes, and coverage in traditional news media does not translate into online popularity. By contrast, coverage on top political blogs does. This finding can be seen to have different political and democratic implications. On the one hand, it speaks to the increasing autonomy of the internet as a set of loosely interconnected media platforms and outlets that influence each other more than they are influenced by legacy media and that are generally used more aggressively and successfully by challengers than by incumbents. This raises the prospect of a partial leveling of the political playing field and an opening up of the political process. On the other hand, the fact that partisan political blogs breed attention on other online campaigning platforms lends some credence to fears that, given the current political climate in the US, the web may be evolving into a sort of reflexive ‘echo chamber’, relatively isolated from outside conditions and prone to positive feedback loops amongst people who agree with each other but seek no common ground (Bennett and Iyengar 2008). Popularity on social media may thus mostly accrue to candidates that focus on hot-button issues and cater to their party bases; their online followers may disproportionately be ideological purists, a choir that candidates preach to in hopes of marshaling resources such as donations and volunteer hours: as a result, little cross-party dialogue and disagreement would be facilitated by internet campaigning. In sum, the dynamics that we have identified as the drivers of politicians’ online popularity on various online platforms may be making American congressional

elections a bit more competitive by strengthening challengers, and at the same time increase partisan polarization.

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AUTHOR

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FIGURE 1 – Distribution of Facebook supporters across all 224 candidates in November

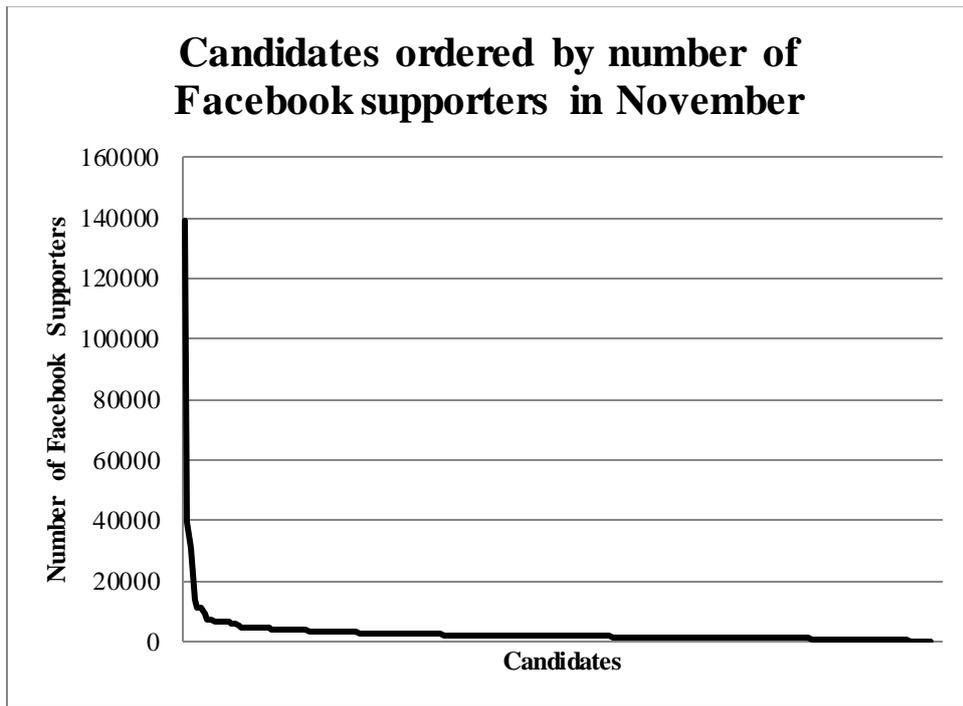


TABLE 1 – Median amounts of attention in November 2010

<b>Platform</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Bottom 10%</b>	<b>Median</b>	<b>Top 10%</b>
Facebook supporters	3,214	9,871	654	1,806	4,600
Twitter followers	917	1,872	99	365	1,800
YouTube views	9,588	28,909	552	2,198	18,300
Website visitors	2,583	4,491	240	1,516	4,700

Note: 224 candidates from 112 districts included. Data used is Facebook supporters and Twitter followers in early November, total YouTube video views between early October and early November, and Compete’s estimate of number of unique visitors in November.

TABLE 2 – OLS regressions estimating the impact of district-level and candidate-level variables on attention to four platforms of candidate e-campaigning in November 2010

	<b>Facebook</b>	<b>Twitter</b>	<b>YouTube</b>	<b>Website</b>
<i>District-level</i>				
Median age	-.025 (.021)	-.046 (.030)	-.029 (.034)	-.032 (.034)
Population with college degree (%)	.027* (.012)	.001 (.017)	.027 (.018)	.001 (.017)
Median income (\$1,000)	-.006 (.007)	.001 (.010)	.001 (.011)	.037*** (.011)
White population (%)	-.001 (.005)	-.007 (.008)	.007 (.008)	.012 (.008)
Population living in rural areas (%)	.003 (.004)	-.009 (.006)	.003 (.006)	.019** (.006)
2010 vote margin	-.001 (.007)	-.017 (.010)	-.018 (.011)	-.009 (.013)
<i>Candidate-level</i>				
Party (Democrat=1)	-.275 (.157)	-.534* (.222)	-.259 (.244)	-.501* (.246)
Challenger	.697*** (.174)	.827*** (.248)	.156 (.268)	.760** (.276)
Open seat	.635*** (.179)	.947*** (.259)	-.162 (.276)	.425 (.283)
Predicted vote share in November	.022* (.011)	.017 (.016)	-.007 (.017)	.028 (.018)
Money spent (\$1,000,000)	.266*** (.061)	.101 (.090)	.144 (.095)	.104 (.091)
Engagement functions in website (0-13)	.086* (.035)	.033 (.053)	.130* (.056)	.091 (.055)
<i>Media coverage</i>				
Mentions in top political blogs	.111** (.039)	.205*** (.056)	.291* (.060)	.128* (.057)
Mentions in Associated Press national	.095 (.082)	.076 (.117)	.141 (.126)	.162 (.123)
Mentions in Associated Press local	.003 (.079)	.016 (.113)	-.015 (.121)	-.042 (.118)
Constant	5.613*** (.936)	7.070*** (1.377)	8.134*** (1.467)	2.600 (1.523)
<i>N</i>	222	203	188	205
Adjusted R <sup>2</sup>	.362	.289	.318	.283

Note: \*\*\*p<0,001 \*\*p<0,01 \*p<0,05. Data source is the same as table 1.