Campaigning Online: 
Web Display Ads in the 2012 Presidential Campaign

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Although much of what we know about political advertising comes from the study of television advertising alone, online advertising is an increasingly prominent part of political campaigning. Research on other online political communication—especially candidate websites, blogs, and social media—tends to conclude that these communications are primarily aimed at turning existing supporters into campaign donors, activists, and volunteers. Is a similar communication strategy found in online display ads—the ads seen adjacent to website content? We examine 840 unique online display ads from the 2012 presidential campaign to explore the nature, content, and targets of online display advertising. We show that the policy content, tone, ad location, and interactive elements of the ads varied based on the audience, with persuasive appeals aimed at undecided or persuadable voters and engagement appeals aimed at existing supporters. Comparing ad content across candidates also finds that each side focused on those issues for which the candidate had a strategic advantage. As a consequence, we find little issue engagement in online advertising, in contrast to the conclusions of previous research looking at television advertising.
To date, the study of political advertising has largely been the study of television advertising. However, political candidates are increasingly using Internet advertising in their communication campaigns, reflecting a broader evolution in media consumption in American society as more and more people find their news and entertainment online (e.g., Tewksbury 2006). In 2012, the presidential candidates spent an unprecedented $78m on online advertising—including $52m by the Obama campaign alone—representing a 251% increase from 2008.¹ Yet in comparison to the extensive bodies of research on television advertising (e.g., Goldstein and Freedman 2002; Jamieson 1996 for review), and increasingly, direct mail communication (Campbell and Monson 2008; Hillygus and Shields 2008), scholars have paid relatively little attention to online political advertising—perhaps reflecting the fundamental challenge of capturing online content for analysis (Towner and Dulio 2012).

Previous journalistic and scholarly accounts of other online communications—candidate websites, political blogs, and social media—have largely concluded that online political campaigning is primarily used for mobilizing and engaging existing candidate supporters (e.g., Herrnson, Stokes-Brown, and Hindman 2007). Most prominently, it is thought that candidate strategy in online communication is aimed at turning supporters into activists and donors (Vaccari 2008), a view that is largely confirmed by campaign insiders. As one journalist concluded, “as late as 2008…old-school political media consultants were less than convinced that online ads could do much more than help rake in donation dough to fuel more television buys” (Kaye 2010, 2). Online advertising, however, differs from twitter, Facebook, blogs, and the like in the extent to which it can reach beyond existing supporters, suggesting candidates could use online advertising for both engagement and persuasion messages.

In this paper, we explore candidate strategy in online advertising in the 2012 presidential race, analyzing 840 campaign display ads collected by the search-engine Moat.com. Our analysis suggests that online display ads had a diversity of communications goals, including get-out-the-vote (GOTV), recruitment, and persuasion messages. We also find that the policy content of the ads differed across the candidates, largely reflecting the strategic advantages and issue ownership of each side (Petrocik 1996; Simon 2002). Thus, these findings build on the existing political communication research in two important ways. First, we show that candidates are using a broader campaign strategy in their online communication than often assumed, with the content and goal of ads reflecting the targeted audience.

Second, our analysis demonstrates that our results highlight the ways in which offline and online advertising differ, reflecting the constraints and capabilities of the communication medium.

**Background and Expectations**

Given the centrality of the Internet to our lives today, it is easy to forget that online campaigning is a relatively recent phenomenon in American politics. Online communication in presidential campaigns dates to the 1992 election, when then-candidate Bill Clinton created a text-based website with speech transcripts and policy statements (Hendricks and Kaid 2011). The website was more a novelty than an effectual form of communication, since most voters were not online and web browsers did not yet exist. By the turn of the century, however, the majority of Americans had access to the Internet and candidate websites had become commonplace in federal races. The percentage of House candidates with a website, for example, increased from 35% in 1998 to 81% in 2004 (Druckman, Kifer and Parkin 2007). Today, political websites are ubiquitous for candidates at all levels of political office.

As political campaigns have increased their Internet presence, scholars have begun documenting candidate strategy in online political communication. A rich literature has analyzed the nature and content of congressional campaign websites, in particular (e.g., Gibson et al. 2003; Xenos and Foot 2005; Druckman, Hennessy, Kifer, and Parkman 2010). This research offers a variety of insights about online communication strategy, with the most consistent conclusion simply that “websites are not constructed primarily for undecided voters” (Trent and Friedenberg 2008, 403). Individuals who visit candidate websites tend to be the most partisan, polarized, and informed segment of the electorate (Bimber and Davis 2003). As such, the content is thought to be primarily aimed at turning these existing supporters into donors, volunteers, and activists (Foot and Schneider 2006; Cornfield 2004; Vitak et al. 2011). A similar conclusion has been reached in the analysis of other online communications, including campaign e-mail lists (Williams and Trammell 2005), candidate blogs (Williams, Trammell, Postelnicu, Landreville, and Martin 2005), Twitter feeds (Cogburn and Espinoza-Vasquez 2011), and Facebook pages (Gulati and Williams 2009; Gueorguieva 2008). Here again, the conclusion seems to be that online candidate communications are aimed at existing candidate supporters who might be motivated to further

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2 In contrast, Druckman, Kifer, and Parkin (2009) report the results of a survey of website designers for congressional candidate websites that found that web designers thought undecided voters were still a top target audience even while recognizing that this group was less likely to actually see the content.
action—donating money, signing a petition, or volunteering for the campaign. For example, the majority of those following a candidate’s Facebook page have already made up their mind to vote for that candidate (Sweetser and Lariscy 2008). In other words, the current scholarly consensus seems to be that online campaign communication is primarily aimed at political mobilization, engagement, and activation rather than the persuasion of undecided or swing voters. As Baum (2011) puts it, “the new media are ideal vehicles for preaching to the choir. Increasingly sophisticated communication methods…combined with partisan self-selection by consumers, allow political leaders an unprecedented opportunity to reach out to their core supporters” (195).

Most prominently, online campaigning has been thought to go hand in hand with online fundraising. E-mail, websites, blogs, and the like can be used to identify potential donors who might not otherwise contribute to the campaign (Foot and Schneider 2006). Historically, Clinton was again the first candidate to use the Internet for fundraising; he collected about $10,000 online in 1996, a tiny portion of his overall fundraising totals of more than $110,000,000. However, it was the surprise fundraising success of John McCain in the 2000 primaries and Howard Dean in the 2004 primaries that highlighted the Internet’s fundraising potential. Whereas fundraising dollars for presidential campaigns had traditionally come in large sums from small numbers of wealthy donors, these examples of fundraising success were built on contributions in small denominations from a multitude of Internet donors; they quickly became the model for online campaigning. In 2008, Obama’s success at raising $500 million from 3 million individual donors making 6.5 million separate donations was largely attributed to his e-mail, text messaging, and social media fundraising efforts.

We contend that this perspective of online campaign communication as primarily aimed at core supporters is too narrow a characterization of online campaign strategy, especially in light of the growth of web display ads. Candidates understandably will “preach to the choir” on campaign websites, Twitter, or Facebook, because these mediums primarily reach an audience of supporters. But the pervasiveness of the Internet, coupled with the declining audiences for television, should make online display ads an increasingly attractive medium for reaching those outside the subset of core supporters, including nonvoters and undecided voters.

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http://voices.washingtonpost.com/44/2008/11/20/obama_raised_half_a_billion_on.html
There are several reasons to think that a broader communication strategy will be used in web display ads. First, it is much cheaper to create and distribute ads on the Internet than on television, reducing the financial constraints of any online advertising strategy. Second, it is much faster to do so, allowing campaigns to react quickly to opponent attacks or current events. Both of these factors might lower the bar for a more wide-ranging communication strategy that could include both engagement and persuasion messages. Most importantly, the fragmentation of the Internet allows for targeting different messages to different audiences (Lee 2007; Althaus and Tewksbury 2000). It is estimated that there were 644 million active websites on the Internet in 2012—up nearly 2000% from 32.5 million in 2002—dwarfing the number of television and radio stations worldwide. For instance, our dataset includes advertisements on websites as diverse as beautifulhairstyles.com, cincinnati.com, dietsinreview.com, blackvoicenews.com, and redstate.com, among others. Websites often appeal to narrow and specific interests in the electorate, thus enabling advertisers to microtarget specific messages. To be sure, there are broad-audience websites (e.g., usatoday.com) and niche television stations or programs (e.g., the Golf Channel), but the extent of online sources offers greater flexibility in determining the audience scope. In contrast, as one journalist recently put it, television advertising is “about as precise as carpet-bombing.”

Of course, while politicians generally try to tailor their messages to the preferences and priorities of the message recipient, they are constrained by the information they have about that audience (Hersh and Schaffner 2012). In each realm—Internet, television, and ground communications—candidates have different types of information about their audience. Television advertising tends to rely on aggregate statistics about program and/or station audience demographics. Not surprisingly, researchers conclude that presidential candidate advertising on television tends to focus on messages about national problems on which there is widespread agreement (Ansolabehere and Iyengar 1994). Ground war communications (direct mail, phone, and face-to-face messages), in contrast, typically rely on information that can be targeted to specific individuals, such as individual-level names and addresses from voter files that have been linked to consumer and government data. As such, ground communications have been found to cover a wider range of policy issues, including divisive wedge issues targeted to different subsets of the electorate (Hillygus and Shields 2008).

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Information about website users is far more varied, and constantly evolving. Individual-level information is linked not to the name and address of a voter, but to anonymous Internet profile(s) and/or IP address(es). It is typically unclear how these online identities, constructed from search histories and browser cookies, will relate to offline identities, although there are increasing attempts to link the two.\(^7\) At the same time, there are aggregate audience statistics for many individual websites. For example, conservatives are more likely to visit drudgereport.com and liberals are more likely to visit crooksandliars.com (Gentzkow and Shapiro 2011, Leccese 2009). Even when audience leanings have not been explicitly measured, the narrow scope of website content often reveals likely audience preferences. The point is simply that Internet ads can either be targeted to websites with large, broad audiences or to those aimed at narrow subsets of the population (Kaid 2006), and hence should enable the dissemination of both engagement and persuasion messages.

As one of the first looks at online political advertising, our analysis is exploratory, but the constraints and capabilities of the communication medium do lead to some specific expectations about the patterns of campaign messages we should find in 2012. In particular, we expect the message content will vary based on the target audience, with different messages aimed at activating core supporters than aimed at persuading undecided and swing voters. Because persuasive ads offer an argument as to why the recipient should support the sponsoring candidate rather than the opponent, they should be more likely to contain issue positions and promises and more likely to have a negative tone. In contrast, engagement ads should be more positive as they try to build enthusiasm for the candidate (Brader 2005). We should also see variation in the nature of ad interactivity based on the targeted audience. The prominence of interactivity for online communication has been well-documented in existing research (Trammell et al. 2006), but we expect different “calls to action” based on the communication goal and target audience of the ad. Persuasion ads should include messages urging viewers to find out more information, whereas engagement ads (those targeted to supporters) should be more likely to request donations or urge volunteering for the campaign. Indeed, it is the combination of interactivity and audience fragmentation that has made the Internet such an attractive fundraising tool; it is considerably easier for an individual to

\(^7\) For example, Google AdSense can display ads based on the content of your Gmail messages, information from your Google account, and information about your browsing history. The candidates did use these and other behaviorally targeted ads in the campaign, but they are not included in our sample of contextual display ads. Interestingly, a recent study finds that Americans overwhelming dislike political advertising targeted to their specific interests (Turow et al. 2012; Hersh and Schaffner 2013).
click through an online donation link than to respond to a donation appeal made by phone, television, or mail.

Beyond these basic patterns, we also expect differences in the issue content of messages between the candidates, with two key lines of research informing our expectations. The first body of research emphasizes that candidates will try to focus on those issues for which they have a strategic advantage (Simon 2002; Petrocik 1996). In the classic work on issue ownership, Petrocik (1996) argues that candidates will emphasize national problems or valence issues on which their affiliated party is viewed as having had a history of success. More recent research also recognizes that a candidate’s advantage reflects not just party performance, but a broad range of factors including voting record, personal experiences, and the like (Simon 2002). In addition to any party-owned valence issues, candidates also have an incentive to emphasize contentious positional issues that divide the opposition’s potential coalition—so-called wedge issues—at least when they can be narrowly targeted to receptive audiences, as should be the case online (Hillygus and Shields 2008).

Thus, we expect Romney ads should be more likely than Obama ads to mention Republican-owned issues of the budget deficit/government spending, small businesses, and U.S. foreign policy. Among the most salient wedge issues that advantaged Romney in the campaign was the Affordable Care Act (ACA, or Obamacare)—the Obama-led health care reforms passed in 2010. Another was America’s role in world politics, and Romney’s emphasis on American exceptionalism in guiding foreign policy—an issue that became especially salient following the Benghazi crisis. On the Obama side, we should see more mentions of Democrat-owned valence issues like Medicare, the environment, and education. The clearest wedge issues for which Obama had an advantage were women’s rights and gay rights. The issue

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8 Polling data prior to the election largely confirmed the issue ownership patterns found by Petrocik (1996) and Simon (2002). For example, polls found higher levels of confidence in Republicans regarding the budget deficit and government spending (53% Romney, 43% Obama) and small business innovation (48% Republican, 36% Democrat). The public was more confident in the Democrats regarding health care (50% Democrat, 43% Republican), the environment (71% Democrat, 17% Republican), and education (47% Democrat, 38% Republican) (New Models 2012; NPR 2012; America’s Changing Political Geography Survey 2002).

9 In October of 2012, 36% of Democrats and 68% of Independents had an unfavorable opinion of ACA; not surprisingly, 90% of Republicans had an unfavorable opinion. (http://kff.org/health-reform/poll-finding/march-2013-tracking-poll/).

10 In 2010, Romney wrote a book titled, “No Apology: The Case for American Greatness,” in which he offered his view of American exceptionalism and his critique of Obama’s foreign policy. The issue became salient again following the Benghazi crisis, when the Obama administration was reluctant to label the attacks on the American consulate as “terrorism,” and in response to the administration’s comments about the anti-Islamic movie Innocence of Muslims.
of reproductive rights was especially prominent in the campaign after a series of controversial statements by Republican candidates, including Senate candidate Todd Akin's (R, Missouri) comment about “legitimate rape,” that brought the Republican position into the media spotlight. CNN analyst William Schneider explained that Akin “introduced a highly divisive social issue into the GOP campaign. And shifted the debate away from jobs and the economy, where President Barack Obama is vulnerable. And highlighted the inconvenient fact that the Republican platform calls for a total ban on abortions with no exception for rape. And opened up a split in the party between mainstream conservatives and the religious right.”

Expectations about the use and framing of the economy are somewhat less clear. A rich line of research has consistently shown that the economy is a central topic of every election, reflecting the fact that many voters vote retrospectively on the basis of economic performance. That is, they are more likely to vote for the incumbent party in good times and the challenging party in bad times (Fiorina 1981). Candidates’ specific strategy with respect to the economy thus depends on incumbency status and the state of economy (Vavreck 2009). Expectations in 2012 are not as clear cut as in other elections because the economy was improving, but remained very weak. Many journalists and consultants assumed that Romney, as the challenger, benefited from emphasizing the poor state of the economy. A Washington Post journalist explained this perspective, “On the question of which candidate would do the best job of improving economic conditions, 49 percent of people choose Romney, while 41 percent opt for Obama. What do those numbers tell us? … Romney has to keep voters’ attention almost entirely focused on the president and what he has done in his first four years in office on the economy.” In contrast, Sides and Vavreck (2013) argued that improving trend in the economy offered Obama a strategic advantage. Given the complexity of the economic situation, we certainly expect that the candidates will frame this important issue in different ways (Sides 2006).

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12 In October 2012, 49% had more confidence in the Republican Party to handle the economy versus 46% for the Democrats (New Models 2012). Results were similar for specific candidates: 50% for Romney, 46% for Obama (NPR 2012).
14 Indeed, they find that both candidates were emphasizing jobs and the economy in their early television ads, but their analysis of issue content is focused only on TV advertising from May-July.
Importantly, our expectations with respect to issue mentions imply that there will be limited overlap in issue content between Obama and Romney ads. The candidates should exploit the fragmented nature of the Internet to communicate about the valence and positional issues on which they hold a strategic advantage with the targeted audience. To the extent they can’t avoid talking about an issue like the economy, they should frame it in an advantageous way. This expectation stands in contrast to previous literature that has argued that the media essentially force candidates to talk about a subset of salient issues (Ansolabehere and Iyengar 1994; Sigelman and Buell 2004). Most strikingly, analyses of political television ads finds little support for issue ownership theory, instead concluding that there is considerable issue dialogue in the campaign messages. Kaplan, Park, and Ridout (2006), for example, find extensive overlap of issue mentions in US Senate races from 1998 to 2002, especially when races were competitive. Sides (2006) reaches a similar conclusion in analyses of House and Senate television ads, although he finds that the issues are often framed in different ways depending on the party of the candidate. In contrast to this work on television advertising, we suggest that the fragmentation of the Internet means that candidates should be able to talk past each other, essentially communicating to different segments of the population on different issues, similar to the pattern found in direct mail communication (Hillygus and Shields 2008).

Data

The fleeting and fragmented nature of Internet advertising means it is quite difficult to quantify and study online political ads. As one journalist put it, “It is near impossible to get a comprehensive view of which online ad messages the campaigns are targeting where and to which voter segments.” 15 Although it is admittedly imperfect, we are able to explore online advertising strategy using a content analysis of 840 unique online display ads from the 2012 Presidential campaigns compiled by Moat Ad Search, a search engine that aggregates online advertisements. 16 Moat compiles daily indexes of media advertisements (“creatives”) from the web, and then catalogs the unique ads, reporting the two websites


16 Ads are often placed on a website by a third-party intermediary such as DoubleClick. Such placements still reflect the client communication strategy because they are able to specify placement factors such as specific websites, keywords on website, or website audience. We have replicated our analysis on the subset of “direct deals” with similar results.
on which the ad was most recently placed. As co-founder Jonah Goodhart explains it, “It’s basically like Google, except Google basically skips the ads and just grabs the content. We skip the content, and just grab the ads.” We captured all of the indexed Obama and Romney ads from June 2011 until Election Day, November 6, 2012. The resulting 737 Obama ads and 103 Romney ads were then coded by two coders using a coding scheme modeled after the Wisconsin-Wesleyan Advertising Project.

Although this dataset allows one of the first explorations of online advertising strategy in a presidential campaign, we should acknowledge the weaknesses of the data. First, Internet display ads are only one small part of a candidate’s online strategy, which includes communications through candidate websites, videos on YouTube and Hulu, campaign blogs, official (and unofficial) tumblr accounts, Twitter feeds, and even Second Life avatars. For example, in August 2012 President Obama participated in an Ask Me Anything (AMA) on Reddit. Second, our dataset captures only a subset of display ads—contextual display ads rather than those based on search engine results or otherwise behaviorally targeted. For instance, this means our sample does not include ads linked to a particular Internet search query, ads based on Facebook “likes” or ads based on cookies from a visit to the candidate’s website. Because the Moat indexer is not associated with an individual online profile, it tends to miss ads that were individually targeted based on online behavior. The candidates did use such behavioral targeting in their campaigns, but our analysis cannot speak to candidate strategy with respect to those type of ads.

Third, from a statistical sampling perspective, we do not have a random sample of contextual display ads; rather, we would characterize our sample as an imperfect collection of the population of ads, much like the Campaign Media Analysis Group (CMAG) data. The key question is if our findings are biased by those ads missed by the search engine. The extent of bias depends not only on the rate of coverage error but also to the degree to which the patterns in the missing ads are different from the patterns in the observed ads. Further scrutiny offers some reassurance about our observed sample on both dimensions. First, a comparison finds our sample contains at least 55% of the unique ads in a more

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17 It is also indicated if the ad was seen on additional websites but they were not specifically identified.
19 Ads were downloaded on November 6, 2012.
20 See appendix for more information about coding. For more information about the Wisconsin-Wesleyan Advertising Project, see http://wiscadproject.wisc.edu/project.php and http://mediaproject.wesleyan.edu/about/.
22 Indeed, it’s not possible to draw a random sample because a knowable sample frame does not exist.
comprehensive for-pay ad search service (Moat Pro). Second, although the details of the search algorithm are obviously proprietary, it seems likely that Moat does a better job of capturing ads on the most popular 50,000 websites than those on less popular websites. If anything, this might suggest that if there are biases in our sample it might well be that we underestimate the extent of message targeting to narrow audiences.

To offer some context, it is also worth comparing our data to the well-used CMAG database of television advertising. CMAG tracks ads in the top 100 media markets (covering 75% of the population), but there are 210 media markets in the United States. They also track ads on 53 different broadcast and cable networks, but there are 1,774 broadcast television stations and 6,100 cable systems. The point is simply that collecting a sample of advertising is always difficult and fraught with coverage error. While our sample is not comprehensive, it captures a narrow, but important, slice of the candidates’ online communication strategy and offers a rare—if imperfect—opportunity to look at the strategies behind contextual online display ads in presidential elections.

Finally, we want to note that the information reported about each ad creates some limitations to our analysis. Most notably, we do not have exhaustive information on the frequency or location of each ad. The collected dataset contains unique ads, but those unique ads may have been shown a handful of times or millions of times. Also, Moat reports the last two websites on which an ad was shown, but we do not have the complete list of every site on which an ad was shown. Some ads were seen on only one or two websites, while others were shown on more than 400. Consequently, although this dataset gives us unique ads, it gives only a limited view of where those ads were shown or the frequency with which they were shown on each site. Hence, our analysis focuses on the nature and content of unique ads, rather

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23 Because Moat and Moat Pro report different information about the ads collected, we were able to match only on the written content of the ad (the actual words in the ads). Although we scored as a match only those with perfect congruence in words, our match rate would have been significantly higher had we included near matches. For example, the majority of unmatched ads had a “close” match in which the only difference in content was a single word or two (e.g., “Join Michelle and tell Barack you’re in.” could end with either “Are you in?” or “Get started.”). Overall, Moat Pro identifies 1405 unique ads for the Obama campaign and 157 unique ads for the Romney campaign. We saw no clear and systematic pattern to the ads in Moat Pro but not Moat.

24 Moat analytics are based on the most popular 50,000 websites.


26 The definition of unique is based on content and size in kilobytes (KB). For example, we had several ads that had identical content and visuals but were considered unique ads because of differences in the KB size. Ad size could vary, for instance, based on the dimension of the ad associated with a particular location (top vs. side) on a website.
than the quantity of advertising online. This parallels the approach of some TV advertising research (e.g., Spiliotes and Vavreck 2002).

Although our focus is necessarily on variation in the content of unique ads in the Moat sample, we can provide some broader context for our study from other Moat Pro analyses. Overall, Moat reports that Pro-Romney ads were placed on roughly 2,825 sites and Pro-Obama ads were placed on about 4,000 sites. Table 1 includes the top website publishers for each candidate based on the number of unique ads found on the site. For Romney, the leading publishers by number of unique ads were washingtontimes.com (54), a conservative-leaning news site, breitbart.com (45), a conservative news and opinion website, and drudgereport.com (41), a conservative news aggregation website. For Obama, the leading publishers by number of unique ads were dailykos.com (303), a left-leaning political blog, wunderground.com (275), a weather service site, and elyrics.net (271), a website for song lyrics.

Of course, the number of unique ads is distinct from the number of views. Moat estimates an Activity score based on the placements and estimated volume of traffic.27 Highlighting the fact that the number of unique ads is distinct from frequency of placement or viewership, the website that attracted the second highest Activity score among the Romney ad placements was aol.com (behind only drudgereport.com)—despite the fact that only one unique ad was shown on the site. Based on Moat’s Activity score, Obama ads attracted the most traffic on nytimes.com, yahoo.com and aol.com. Although the Activity score allows comparison only within candidate rather than across candidates, other Moat data largely confirm the common conclusion that Obama invested more in online advertising than Romney. From the number of unique ads, we see the vast online advertising advantage that Obama had over Romney, which is consistent with spending reports that found Obama outsued Romney online by a ratio of roughly 2:1.28 Moat also reports that Obama was consistently listed in the top 15 most active “brands” marketed online between May and November 2012.29 Mitt Romney was listed among the top one hundred only in the last month of his campaign (Goodhart 2013).

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27 The more impressions an advertiser is observed running on a publisher, the higher the advertiser's Activity Score will be for that publisher. The Moat 100, Share of Voice, and other reports show Activity combined across all publishers. Activity for each publisher is weighted by estimated traffic volume of those publishers, so impressions on large publishers will contribute more to the total Activity result than on smaller publishers.
28 http://www.businessinsider.com/infographic-obama-romney-final-ad-spend-2012-11#ixzz2ZL1uJzyQ.
29 The measure share of voice is based on sampling the top 50,000 websites and indicates what brand is more visible on the Internet (Goodhart 2013).
Table 1. Overview of advertising activity and volume for the both campaigns as reported on Moat Pro.

### The Nature of Contextual Online Display Ads in the 2012 Presidential Campaign

In exploring the nature of online contextual display advertising in the 2012 election, we start by considering the goal and target of the ads. Reported in Figure 1 is a simple classification of the primary goal of each ad based on the judgment of two coders, categorized according to four mutually exclusive categories of appeals: donation, GOTV, recruitment, and persuasion. An ad was coded as GOTV if it urged the viewer to vote, such as the Obama ad that read “Vote for Barack - Election Day is Nov. 6.” Persuasive ads offered some rationale as to why the viewer should support the candidate, such as the Romney ad that read “Obamacare is wrong - and I'll repeal it - Mitt Romney. A clear choice.” Donation ads requested a donation or participation in a fundraiser, such as the Romney ad reading “Stand with Mitt.

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30 See the appendix for more complete discussion of the coding scheme. Coding was based on all information available—the visual image, content message, interactive links, etc. The primary goal variable had 93.6% agreement between the two coders, with a Cohen's Kappa coefficient of .902.
Finally, recruitment ads encouraged further participation in the campaign, such as sharing one’s e-mail address with the campaign. Interestingly, many of the Pro-Obama recruitment ads were personal rather than political (e.g., “Wish Barack and Michelle Obama a Happy Anniversary”).

As seen in Figure 1, attracting donations was indeed one part of online advertising strategies, but far from the dominant goal—25% of all ads launched for both candidates can be characterized as having the primary goal of acquiring donations. Another 18% were intended to get out the vote, and 20% asked the viewer to get further involved in the campaign. Together, these three engagement activities account for 63% of the ads, leaving 37% that are persuasion ads. Thus, this initial cut suggests that online display ads were indeed aimed beyond just the subset of the electorate already planning to vote for the candidates. To verify this initial result, we next examine variation in the content and location of the ads.

We start by scrutinizing the interactive content—the specific “call to action”—requested by the ad. It is worth noting that the vast majority (nearly 80%) of ads contained interactive elements, such as

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31 Given the conclusions of previous research, we used the most conservative coding of Donations as possible so that any ad that mentioned a donation was coded as such, even if it also included persuasion, recruitment, or GOTV content.
The three most common interactive elements were a sign up request (39%), a find out more request (29%), and a donation request (18%). Figure 2 includes the percentage for each of these calls to action that were classified as engagement (GOTV, donation, or recruitment appeals) versus persuasion ads. As might be expected, most ads with a sign-up request were categorized as engagement ads (78.8%), while most ads that asked viewers to find out more information were categorized as persuasion ads (88.3%). Again, these results suggest that campaign strategy in online display ads included an effort to both engage existing supporters and persuade potential ones. The pervasiveness of interactivity also highlights the unique capabilities of online communications since it is far easier to make web ads interactive compared to TV or mail ads. Research has also shown that interactivity is related to persuasiveness and recall.

Figure 2. Primary Goal by Interactivity Request. The percentage of ads making each request is listed next to action request (Top 3 reported).

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32 Categories are not mutually exclusive, as ads can ask for more than one immediate action. Interactive appeals yielded 88.1% agreement between the two coders, and a Cohen's Kappa coefficient of .847. More information on the coding scheme can be found in the Appendix. If we use the original measure of donation ad based on primary goal coding, 60% of donation ads were considered engagement ads and 40% were considered persuasion ads.
The policy content and tone of persuasion and engagement ads are other ways in which the content of ads are expected to vary across the communication target or goal. For instance, as persuasion ads attempt to convince a voter to support one candidate over another, they should be more likely to contain issue content. Similarly, persuasive ads should be more likely than engagement ads to have a negative tone. In Figure 3, we report the percentage of ads that mention at least one policy issue, and the percentage of negative ads by ad goal. Not surprisingly, 82% of persuasion ads contain issue content, compared to 16% of engagement ads. Also as expected, the percentage of persuasion ads that are negative in tone (36%) is much higher than the percentage of engagement ads (2%).

![Figure 3. Issue and Negativity Content.](image)

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33 The ads were also coded for candidate trait mentions, but no more than a handful explicitly mentioned a specific trait.
34 Coding ads by negative ad type yielded 89.9% agreement between the two coders, and a Cohen's Kappa coefficient of .648.
We also consider the placement of the ads, based on the last two websites on which the ad was shown. Websites were coded for their ideological leaning based on audience measures (Gentzkow and Shapiro 2011), candidate endorsements, and website content. By this coding, for instance, nytimes.com, oprah.com, and colbertnation.com were all coded as left-leaning websites, whereas orlandosentinel.com, drudgereport.com, and realclearpolitics.com were coded as right-leaning. Neutral websites were those that discussed politics, but did not lean left or right (no endorsement was made, and if audience statistics were available they were relatively balanced), such as cnn.com, usatoday.com, and msn.com. Finally, non-political websites include those for which leanings could not be identified based on the above criteria, and included websites such as active.com, azlyrics.com, and ehow.com.

If candidates are using online display ads to engage and mobilize supporters as well as convince undecided voters, we might expect to see variation in the ad goal based on the location of the ad. Indeed, a strategy geared entirely toward engagement might do little more than place ads on partisan-leaning websites. Overall, however, we find that 43% of all ads were last seen on a nonpolitical site, 27% on a neutral news site, and 47% on partisan-leaning websites. This alone is notable because the majority of ads were shown on nonpartisan websites.

Figure 4 compares the primary goal of ads placed on partisan-friendly versus nonpolitical/neutral websites. Although the overall distribution is quite similar across website types, there is some notable variation. Partisan-friendly websites hosted more donation and recruitment ads than nonpolitical or neutral websites. In contrast, partisan-friendly websites had fewer persuasion ads than nonpolitical or neutral websites. The placement of GOTV ads is potentially surprising, as partisan-friendly websites had fewer mobilization ads than nonpolitical or neutral websites. On closer examination, however, we find that this result is driven entirely by pro-Obama ads, many of which were placed on websites targeted to young people (such as mtv.com and southpark.com) or to narrow geographic websites in battleground states (such as gainesville.com and wdtn.com). Given the incomplete nature of the placement information provided about each ad, we replicated our analysis on the subset of ads (N=319) for which

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35 See Appendix for detailed coding information.
36 Percentages do not sum to 100% because we have coded both of the last two websites on which the ad was seen. Thus, while our analysis can identify the type of websites on which the ad was definitely seen, we do not know if it was seen on other types of websites as well.
37 At the same time, partisan websites did see a greater overall frequency of ads. Looking at the average number of ads shown on each website in our sample finds that partisan-friendly sites had an average of 4.2 unique ads compared to 1.9 on non-political or neutral sites.
we had complete ad placement information (because they appeared on two or fewer sites). Reassuringly, we find a similar pattern as that seen in Figure 4. As a second robustness check, we consider only the ads that were placed on at least one website in direct collaboration between sponsor and publisher—so-called “direct deals”—rather than through third party intermediaries. We again find the same patterns in Figure 4. This robustness check shows that the distribution of direct deal ad goals on partisan-friendly versus nonpolitical/neutral websites is nearly identical to that of the entire sample, which implies that ad placement behavior according to the partisan leaning of websites did not differ between direct deals and third-party placement.

![Figure 4](image)

**Figure 4.** Placement of Ads by Primary Goal.

Finally, to confirm that these patterns are not simply an artifact of Obama’s greater ad output or other factors, we estimate a series of multivariate logistic regression models. We control for the candidate, whether the ad was last seen in the last two weeks of the campaign, whether the ad was produced directly by the candidate’s campaign or by the party committee, and ad size in kilobytes (as a rough measure of ad visibility/priority). The coefficients and standard errors for key variables are reported.
in Table 2, and the complete set of results can be found in the Appendix. Controlling for these covariates, we still find the expected patterns. That is, ads on partisan-leaning websites and those with sign-up requests were more likely to be classified as engagement ads. Ads with issue content or a “find out more” request were more likely to be classified as persuasion ads.

The findings presented thus far highlight the variation in message content and ad placement of political advertising related to the target audience. The patterns suggest that, in contrast to the conventional wisdom about online communications, candidates in the 2012 presidential election used the Internet not only to engage core supporters, but also to persuade the uncommitted and even mobilize nonvoters—at least with contextual online advertising. Moreover, we have identified at least some ways in which there may be differences between offline and online communications—in contrast to previous research suggesting messaging will be consistent across mediums (Spiliotes and Vavreck 2002, fn. 3). In the next section, we consider how online display ads differ between the candidates, with further implications for this ongoing debate as to if and how offline and online political communications will differ.

<table>
<thead>
<tr>
<th>Model</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>Model Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue Content (1=Yes)</td>
<td>-3.81*</td>
<td>0.57</td>
<td>0.55</td>
</tr>
<tr>
<td>Partisan-Leaning Website (1=Yes)</td>
<td>1.00*</td>
<td>0.17</td>
<td>0.07</td>
</tr>
<tr>
<td>Sign up Request (1=Yes)</td>
<td>1.51*</td>
<td>0.17</td>
<td>0.14</td>
</tr>
<tr>
<td>Find out more Request (1=Yes)</td>
<td>-3.85*</td>
<td>0.25</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Signif. code: ‘*’ 0.05 . Model fit statistic is the Nagelkerke pseudo R²

**Table 2.** Dependent variable is primary ad goal: 0=Persuasion, 1=Engagement (donation, recruitment, or GOTV). Controls include candidate, time the ad was launched, whether the ad was produced directly by a campaign, and size of the ad in kilobytes.

**Strategic Differences Between Candidates**

In exploring how campaign messages differ between the candidates, we start by comparing the primary goal of ads for each of the two candidates. We see in Figure 5 that pro-Romney ads were especially focused on fundraising, while the strategy of pro-Obama ads was more diverse and included
more GOTV and recruitment ads. We might interpret this as an indication that only Obama ads were uniquely innovative in using the Internet to reach beyond core supporters. While Obama ads clearly had a broader reach than Romney ads, both candidates did have a considerable percentage of persuasion appeals. Moreover, Obama was perhaps uniquely poised to use pure GOTV messages. Some demographic groups—especially the young and minorities—needed only to be mobilized, and not persuaded, to vote for the incumbent.38

![Figure 5](image)

**Figure 5** The primary goal of ads by each candidate.

Indeed, Obama’s strategic advantage among certain demographic subsets is apparent in our coding of ad microtargeting. Figure 6 reports the specific groups to which candidate ads were targeted, coded on the basis of message content and visual images.39 For example, one pro-Obama ad targeted Hispanics with the message “Vas a votar Por Barack? Registrate Online Para Votar,” and another targeted women with the message “President Obama's First Law: Lilly Ledbetter fair pay act - Fight for equal pay

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38 In 2012, 60% of 18-29 year olds voted for Obama, as did 93% of Blacks, 71% of Hispanics, and 73% of Asians. ([http://elections.nytimes.com/2012/results/president/exit-polls](http://elections.nytimes.com/2012/results/president/exit-polls)).
for women.” Comparing across candidates, we find that 30% of Obama ads are targeted toward a specific subset of the population, compared to just 10% of Romney ads. Women were one of the few groups targeted by both sides (12% of Obama ads and 5% of Romney ads). Interestingly, Obama ads targeting women were especially likely to be placed on “women’s” websites—20% of these ads were found on websites like cafemom.com, sheknows.com, and oprah.com. Romney ads were less likely to target subpopulations overall, with the exception of small business owners and women (and ads targeting women were often more narrowly targeted to mothers and families), and the ads were less likely to appear on niche websites.

![Figure 6](image)

**Figure 6.** Percentage of ads targeted to specific groups in the population.

Rather, Figure 7 shows Romney ads were more likely to be placed on partisan-friendly websites than Obama ads; 49% of Romney ads were found on partisan-friendly websites, compared to just 33% of Obama ads. Additionally, Obama ads were slightly more likely to be found on politically neutral websites (at least 36% of Obama ads, at least 31% of Romney ads) and on nonpolitical sites (at least 59%)

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40 A small percentage of ads were placed on websites with the opposing partisan leaning. Generally, however, these trespassing ads were placed on news outlets—especially local newspaper websites in battleground states—that had endorsed the opposing candidate. For example, some Obama ads were placed with *The Las Vegas Review* and the *Nashua Telegraph*, despite their editorial endorsement of Romney.
of Obama ads, at least 34% of Romney ads). Thus, Obama ads were more likely to reach beyond core supporters than Romney ads; however, in doing so, they often were targeted to specific population subgroups known to be especially favorable.

Another key difference between the candidates concerns the frequency and nature of issue content in online advertisements. While more than 70% of Romney ads mention political issues, only 36% of Obama ads do. This stark difference largely reflects the many Obama ads focused on getting “click-throughs.” Many of these ads were simple character ads that asked individuals to “Wish Barack a Happy Father’s Day,” but did not tend to contain issue (or even political) content. This is consistent with previous research on congressional elections that has found incumbents to be less likely to focus on issues than challengers (Druckman, Kifer, Parkin 2009).

![Figure 7](image.png)

**Figure 7.** Location of Ads by Candidate. Because ads could have appeared on two different sites, the sum exceeds one hundred percent.

Table 2 reports the issue attention given to specific policy areas. There are several notable patterns in the table. First, the range of issues mentioned in Romney ads is far less diverse than that of Obama ads; Obama ads mentioned nearly twice as many different issues as Romney ads. Second,
Romney ads were especially likely to talk about valence issues, particularly the economy. While mentions of the general economy were more common in Romney ads, ads for both candidates gave attention to the economy. However, like Sides (2006), we find that the candidates framed the issue in very different ways. Romney issue ads focused on the general state of the economy, while Obama issue ads tended to refer to the economy through a “middle class” or “jobs” frame.

<table>
<thead>
<tr>
<th>Issue Cluster</th>
<th>Issue</th>
<th>Obama Ads</th>
<th>Romney Ads</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Issues</td>
<td>General Economy</td>
<td>8.6%</td>
<td>24.7%</td>
<td>-16.0%</td>
</tr>
<tr>
<td></td>
<td>Jobs</td>
<td>18.7%</td>
<td>15.1%</td>
<td>3.70%</td>
</tr>
<tr>
<td></td>
<td>Middle class</td>
<td>23.2%</td>
<td>6.9%</td>
<td>16.4%</td>
</tr>
<tr>
<td></td>
<td>Federal Budget</td>
<td>4.1%</td>
<td>12.3%</td>
<td>-8.2%*</td>
</tr>
<tr>
<td></td>
<td>Government Spending</td>
<td>3.4%</td>
<td>12.3%</td>
<td>-9.0%*</td>
</tr>
<tr>
<td></td>
<td>Taxes</td>
<td>21.4%</td>
<td>0.0%</td>
<td>21.4%*</td>
</tr>
<tr>
<td></td>
<td>Small Business</td>
<td>1.1%</td>
<td>4.1%</td>
<td>-3.00%</td>
</tr>
<tr>
<td></td>
<td>Corporations</td>
<td>2.2%</td>
<td>0.0%</td>
<td>2.20%</td>
</tr>
<tr>
<td></td>
<td>Housing Crisis</td>
<td>1.5%</td>
<td>0.0%</td>
<td>1.50%</td>
</tr>
<tr>
<td></td>
<td>Auto-Industry</td>
<td>2.3%</td>
<td>0.0%</td>
<td>2.30%</td>
</tr>
<tr>
<td>Health/Education</td>
<td>Healthcare</td>
<td>14.6%</td>
<td>15.1%</td>
<td>-0.50%</td>
</tr>
<tr>
<td></td>
<td>Medicare</td>
<td>3.4%</td>
<td>0.0%</td>
<td>3.40%</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>7.1%</td>
<td>8.2%</td>
<td>-1.10%</td>
</tr>
<tr>
<td></td>
<td>Reproductive Rights/Abortion</td>
<td>14.2%</td>
<td>0.0%</td>
<td>14.2%*</td>
</tr>
<tr>
<td>Social Issues</td>
<td>Gay Rights</td>
<td>10.9%</td>
<td>0.0%</td>
<td>10.9%*</td>
</tr>
<tr>
<td></td>
<td>Women's Labor Rights</td>
<td>4.1%</td>
<td>1.4%</td>
<td>2.80%</td>
</tr>
<tr>
<td></td>
<td>Minority Representation</td>
<td>5.2%</td>
<td>0.0%</td>
<td>5.20%</td>
</tr>
<tr>
<td></td>
<td>Immigration</td>
<td>1.1%</td>
<td>0.0%</td>
<td>1.10%</td>
</tr>
<tr>
<td></td>
<td>Energy</td>
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<td>0.0%</td>
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<td></td>
<td>Environment</td>
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<tr>
<td>Foreign Policy</td>
<td>Military</td>
<td>9.4%</td>
<td>0.0%</td>
<td>09.4%*</td>
</tr>
<tr>
<td></td>
<td>American Exceptionalism</td>
<td>0.0%</td>
<td>12.3%</td>
<td>-12.3%*</td>
</tr>
</tbody>
</table>

**Table 3.** Percentage of Issue Ads mentioning issue in question. * = Significant at .05 level. Note: Ads could be coded for multiple issues, with the exception of “general economy” which was selected only if the economy reference did not fall within one of the other economic issue categories.
The comparison of issue mentions also finds some support for issue ownership theory. Romney ads were more likely than Obama ads to talk about the federal budget deficit and government spending, while Obama ads were more likely to mention Medicare and the environment. Likewise, wedges issues showed up in the expected patterns. Obama ads were more likely than Romney ads to mention women’s issues (4% of Obama ads versus 1% of Romney ads). Romney ads focused on healthcare reform (15%) and American exceptionalism/patriotism (12% of Romney issue ads). Nevertheless, there were surprises—Romney ads included more mentions of education and Obama ads had more mentions of taxes and the military (though the ads were less likely to mention foreign policy overall).

Finally, we consider the extent to which the ads spoke to the same or different issues, sometimes known as “issue convergence” (Sigelman and Buell 2004) or “dialogue” (Simon 2003). Analyses of television advertising have largely concluded that there is considerably more overlap in issue mentions than what is suggested by issue ownership theory, especially in competitive races (Kaplan, Park, and Ridout 2006). In contrast, microtargeting should result in lower levels of convergence—a finding confirmed in a comparison of direct mail compared to television advertising (Hillygus and Shields 2008).

To calculate issue convergence, we first consider the breakdown of issue mentions by each candidate in Table 2. Because ads can mention multiple issues, we divide the percentage of each candidate’s ads that mention each issue by the total issue mentions for each candidate, so that all percentages for each candidate sum to 100%. This gives us an idea of how much total attention was devoted to each issue by each side. From here, we can calculate an issue convergence coefficient proposed in Sigelman and Buell (2004),

\[ 100 - \left( \sum_{i=1}^{n} |P_D - P_R| \right) / 2 \]  

(1)

where \( P_D \) and \( P_R \) are percentages of the relative attention paid to a given issue by Obama and Romney ads, respectively. As reported in Table 3, the issue convergence coefficient for online campaigning in 2012 is 49.4.41 This estimate is lower than for any of the general presidential campaigns (1960-2000) previously studied, which have an average issue convergence coefficient of 71.4 (Sigelman and Buell 2004).42

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41 Some analysts treat jobs and the general economy as a single category (e.g., Gallup, Inc. in the Most Important Problem coding). Treating these issues as a single category changes the convergence statistic very little (49.16).
42 We must be cautious in making the comparison across election years, given differences in coding and advertising medium. Sigelman and Buell (2004) coded statements by politicians in the *New York Times* for their indicator of relative attention to political issues.
Although the issue coding varied somewhat, we can calculate the issue convergence score for issue mentions in television ads in the 2012 presidential election as a point of comparison. The issue convergence coefficient with the convergence scores calculated from issue mentions in 2012 television ads as reported by the Wesleyan Media Project (Fowler and Ridout 2013) was 57.9, a score that is lower than that of previous campaigns, but nonetheless still much larger than what we found. This again suggests that there was more issue convergence for television advertising than for online display advertising in the 2012 campaign—as expected given differences in the nature of the communications medium.

Overall, these results suggest that the candidates were often talking past each other rather than using contextual display advertising on the Internet to engage in dialogue over the same issues. Even on the economy—a topic that neither candidate could ignore—the candidates used partisan-friendly framing. Each side avoided discussing facets of the economy or other issues that were advantageous to their opponent, and thus avoided engaging one another on similar issues.

Discussion

While earlier studies examining online political campaigning concluded that candidates mainly used online communication to activate and solicit donations from existing supporters, our analysis suggests that candidate ads pursued a broader communication strategy in contextual display ads in the 2012 election. To be sure, candidates did try to engage their core supporters using interactive engagement ads requesting donations and e-mail sign-ups on partisan-friendly websites. However, many of the ads were seen on politically neutral or nonpolitical sites. The content of the ads were often persuasive messages—especially likely to contain issue content and/or a negative tone—suggesting that the candidates were attempting to convince viewers other than their core supporters to side with them. Although this conclusion differs from previous views of online campaigning, we cannot say whether these patterns were simply overlooked in the focus on other types of online campaign communication like websites and Facebook, or whether the campaigns in 2012 undertook a new communication strategy. Evidence of growing campaign expenditures on display advertising may well point to the latter conclusion (Kaid 2012).
When it comes to differences in online advertising strategies between the two candidates, the most fundamental is perhaps one that our data are not well-suited to study: differences in the volume of advertising. Nevertheless, even in the number and placement of unique ads, signs point to a distinct Obama-advantage in the volume of online advertising. Both candidates attempted to communicate with a broader swath of the electorate than just their core supporters, but the candidate ads diverged in the content and placement of ads. Obama ads were more likely to be placed on nonpolitical websites, especially those targeted to women, minorities, and young people, whereas Romney ads were more often found on politically conservative websites. Obama ads were more likely to focus on recruitment appeals, encouraging viewers to get involved through e-mail sign-ups and volunteering, while Romney ads were more likely to request donations. Both patterns are consistent with the notion that candidates are targeting communications to specific subsets of the electorate in their online display ads.

We find that differences in issues mentioned were closely related to the candidates’ perceived advantages on issues and quite distinct from one another. For example, mentions of the economy tended to highlight aspects of the issue that framed it in a strategically advantageous way. Romney ads focused on the state of the economy by addressing the valence aspects of the issue, such as the need for new jobs (“Mitt Romney’s plan: putting jobs first”), a balanced budget (“We have a moral responsibility not to spend more than we take in”), or general economic recovery (“We need a real recovery – A clear choice”). By contrast, Obama ads mostly addressed the economy through a partisan-friendly middle class frame (e.g., “The only candidate fighting for the middle class: President Obama”). Candidate ads also mentioned valence and wedge issues for which each side had an advantage, such as American exceptionalism for Romney and reproductive rights, gay rights, and minority representation for Obama.

The broader consequence of a focus on different issues between candidates is that the candidates largely talked past each other in their online advertising. As such, our analysis suggests that online advertising—in contrast to previous conclusions about television advertising—does not provide the same level of campaign dialogue and issue engagement, which might impair the degree to which the campaigns give “citizens opportunities to make informed and meaningful choices between the candidates who were vying for their support” (Sigelman and Buell 2004, 650).

More generally, our analysis highlights the increasingly integral role of online campaigning in political campaigns and offers a framework for predicting how new communication mediums might be
expected to be similar (or different) from traditional political communications. Contextual online advertising appeals differ from social media communications in that they reach audiences other than those who already support the candidate, but they differ from television advertising in that the audiences are more fragmented and messages can be tailored to niche audiences. To be sure, TV ads are neither as broadly targeted as they once were and online ads are not as microtargeted as they could be. However, our analysis offers a first take on the strategies being used in such communications—and the patterns appear to reflect both the strengths and weaknesses of the candidates as well as the constraints and capabilities of the medium. These factors influence not only how candidates communicate but also what they are willing to say, with implications for the quality of campaign dialogue. Capturing and analyzing this increasingly important aspect of campaign communications is a challenge, but it seems that the role of online advertising is unlikely to diminish in future elections.
Citations


Appendix

Data/Coding

This paper relies on a dataset of 840 ads (737 Obama and 103 Romney), collected from a Moat.com search for Obama and Romney on November 6, 2012. The following characteristics were recorded from Moat for each ad: kilobyte size, sponsor, date last seen, and last two websites on which ad was shown. The content coding scheme was modeled after that of the Wisconsin-Wesleyan Advertising Project, and included 50 different fields such as issue content, tone, goal, target audience. Ads were initially coded by Konitzer and Ballard before hypotheses were developed. A sample of 100 ads was coded by an undergraduate research assistant for calculating reliability statistics. The following variables were used in the presented analysis.

- Ad Goal: Coders answered “How would you describe the primary goal of the ad?” Possible values were mutually exclusive: mobilization/get-out-the-vote (GOTV), political persuasion (persuasion), donation for campaign (donation), recruitment for active role in campaign (recruitment), don’t know (DK), and NA. Zero ads were coded "don't know" or "NA". In making this classification, coders were instructed to use all information available—the image, content, interactive links, etc. To create the most conservative conditions for our analyses, donation requests were coded broadly and inclusively: any ad asking for a donation request was coded "donation", even though many could also be considered persuasion ads. Persuasion ads were defined as those that gave some argument for why the viewer should vote for one candidate or the other. These broad categories were then collapsed into persuasion or engagement, with engagement ads including "GOTV", "donation", or "recruitment". (93.6% agreement; Cohen's Kappa coefficient of .902)

- Interactivity: Coders answered “Does the ad direct the viewer to take any action (as opposed to merely providing information)? If action is urged, what is the action?” There were 16 possible responses: none, vote, donate, interact in social networks, learn more/find more information, buy a sticker, shop for candidate items, share your story, confirm polling place, confirm polling place and vote, register to vote, vote early, sign up/participate, Other, DK, and NA. 96% of solicited interactive actions (718/744) were either to sign up and/or participate, donate, or find out more information. (88.1% agreement; Cohen's Kappa coefficient of .847)

- Negative tone: an indicator of whether the ad tone was negative, from the following coding options: positive, negative, contrastive, DK, or NA. (89.9% agreement; Cohen's Kappa coefficient of .648)

- Issue Content: Each ad was coded for mentions of 26 specific issues, reported in Table 2. Not shown are issue categories that no ads mentioned (media, religion/moral values, and Wall Street). (96.3% agreement; Cohen’s Kappa coefficient of .955)

- Group targeted: Coders identified if an ad was targeted to a particular group based on content and visuals. Coded groups included Business Owners, Blacks, Hispanics, Young People, College students, young, LGBT, Women, geographic group, and other (teachers, for instance, were occasionally targeted). We define battleground states according to Politico: Ohio, Iowa, North Carolina, Virginia, Florida, Nevada, New Hampshire, Wisconsin, and Colorado. (88.1%; Cohen’s Kappa coefficient of .706)
Website ideology: Websites were coded as either left-leaning, right-leaning, neutral (but still political), and nonpolitical according to the following criteria (in order) by an undergraduate research assistant unaware of the research expectations using the following criteria: First, the coder used the classification in Gentzkow and Shapiro (2011) based on audience ideology. Websites in the bottom 25% of this scale were coded as liberal, those in the middle 50% as Neutral/Moderate, and those in the top 25% as conservative. If a website had no Gentzkow and Shapiro ideological estimate, the website was coded based on an endorsement in the presidential campaign. For example, lasvegassun.com published an editorial on October 26, 2012 titled “Obama is our choice for president.” Websites with no published endorsements and no audience estimate were coded on the basis of current content. For instance, alternet.org has a clear left-leaning ideological appearance; as of July 2013 the site urged viewers to “Defeat the Republican majority.” Websites were coded nonpolitical if they had no political content, according to these three measures.

Full Model Results for Regression Models

**Dependent Variable (0=Persuasion, 1=Engagement)**

|                          | Estimate | Std. Error | Pr(>|Z|) |
|--------------------------|----------|------------|----------|
| Intercept                | 4.11*    | 0.57       | 0.00     |
| Issued by Campaign       | -0.47*   | 0.23       | 0.04     |
| (1=Yes)                  |          |            |          |
| Candidate (1=Obama)      | -1.78*   | 0.36       | 0.00     |
| Size                     | -0.00    | 0.01       | 0.98     |
| Seen during Last 2 weeks (1=Yes) | -0.10 | 0.28       | 0.72     |
| Issue Content (1=Yes)    | -4.14*   | 0.24       | 0.00     |

Signif. code: ‘*’ 0.05.

|                          | Estimate | Std. Error | Pr(>|Z|) |
|--------------------------|----------|------------|----------|
| Intercept                | 0.53     | 0.40       | 0.19     |
| Issued by Campaign       | 0.28     | 0.15       | 0.07     |
| (1=Yes)                  |          |            |          |
| Candidate (1=Obama)      | -0.32    | 0.28       | 0.26     |
| Size                     | -0.01    | 0.01       | 0.33     |
| Seen during Last 2 weeks (1=Yes) | 0.22 | 0.22       | 0.31     |
| Partisan Targeting       | 0.68*    | 0.17       | 0.00     |
| (1=Yes)                  |          |            |          |

Signif. code: ‘*’ 0.05.
|                          | Estimate | Std. Error | Pr(>|Z|) |
|--------------------------|----------|------------|----------|
| Intercept                | 0.76     | 0.41       | 0.06     |
| Issued by Campaign (1=Yes) | 0.44*    | 0.16       | 0.01     |
| Candidate (1=Obama)      | -0.94*   | 0.28       | 0.00     |
| Size                     | -0.01    | 0.01       | 0.29     |
| Seen during Last 2 weeks (1=Yes) | 0.53*    | 0.22       | 0.01     |
| Sign Up Request (1=Yes)  | 1.65*    | 0.18       | 0.00     |

Signif. code: ‘*’ 0.05.

|                          | Estimate | Std. Error | Pr(>|Z|) |
|--------------------------|----------|------------|----------|
| Intercept                | 1.58*    | 0.50       | 0.00     |
| Issued by Campaign (1=Yes) | -0.51*   | 0.22       | 0.02     |
| Candidate (1=Obama)      | 0.44     | 0.35       | 0.21     |
| Size                     | 0.00     | 0.01       | 0.89     |
| Seen during Last 2 weeks (1=Yes) | -0.25    | 0.26       | 0.34     |
| Find Out More (1=Yes)    | -3.71*   | 0.25       | 0.00     |

Signif. code: ‘*’ 0.05.