

A Research Agenda for Online Political Advertising: Surveying Campaign Practices, 2000–2012

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This article traces the development of online political advertising across four presidential election cycles (2000–2012) to outline an agenda for scholarly research. In 2000, campaigns purchased banner advertisements on sites such as AOL.com. In 2004, campaigns engaged in search engine advertising and piloted much of the data-driven practice of targeting and measuring returns that is standard today. In 2008, the Obama campaign pioneered online advertising designed to find and mobilize supporters and convince undecided voters. In 2012, campaigns began integrating online data with voter files, expanding their ability to target communications based on models of voter attitudes and behavior. Drawing on these empirical findings, we suggest an agenda for research into the processes and effects of online political advertising.

Online campaigning has undergone a dramatic evolution since the earliest candidate websites. The extraordinary online mobilization behind the 2008 Obama campaign demonstrated the potential of the uptake of networked media in electoral politics. Obama’s supporters donated and raised millions of dollars online and used the campaign’s tools to plan thousands of events and make millions of canvassing phone calls (Hendricks & Denton, Jr., 2010; Kreiss, 2012). While systematic research has yet to be published on the 2012 Obama campaign, journalistic accounts suggest a more expanded role for data in all aspects of campaigning, especially online strategic communications through social media (Issenberg, 2012c).

Scholars have paid little attention to the innovative online advertising programs of these campaigns. Even though the 2008 and 2012 Obama campaigns spent the majority of their resources on television advertising (Franz, 2013; Kenski, Hardy, & Jamieson, 2010), the fragmentation of media audiences and staffers’ ability to measure the effectiveness of ads made online advertising an attractive vehicle for building supporter bases, mobilizing volunteers, and persuading voters. The growth of online advertising is apparent in campaign expenditures. During the 2004 election, political advertisers spent \$29 million online (Kaye, 2006); in 2008, spending on online ads reached almost \$20 million—with Obama spending \$16 million and McCain spending \$3.6 million (Kaye, 2009). However, in 2012, the presidential campaigns spent an estimated \$78 million in online advertising. Obama outspent his opponent by a

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considerable margin, devoting \$52 million to online advertising compared with Romney's \$26 million (Stampler, 2012).

Campaigns deploy online advertising based on a startling array of voter modeling and targeting techniques and tailor messages to take advantage of prior knowledge of voters' demographic attributes, political interests, online behavior, and social networks. As Colin Delany (2012b), a prominent practitioner of online campaigning, has noted, campaigns use voter files, commercial and website registration data, cookies that track online behavior, and psychographic information to reach voters of interest: "A campaign might aim cookie-targeted ads at its base voters or identified swing voters, while also running geotargeted Facebook Ads to hit particular demographics in the district and Google Ads on key search terms (the candidates' names, for instance)" (Delany, 2012b, n.p.).

These new, individualized information flows to the electorate are rarely open to public scrutiny, and for good reason. A recent survey found that 86% of the public does not want targeted political advertising, and 64% said they would be less likely to vote for a candidate who used tailored advertising matched to their interests (Turow et al., 2012). Despite public wariness, the increasing uptake of online advertising by campaigns, and growing journalistic attention (Beckett, 2012a; Vega, 2012), scholars have made only initial inquiries into this area of campaign practice to date, with much of the existing literature focusing more generally on candidates' websites. We know little about how campaigns have adapted to what Romney's former digital director Zac Moffat suggests are new models of online consumption (Scola, 2012), or what effects online advertising has on voters' political participation, exposure to political communication, and attitudes about candidates. Much of the literature on online advertising continues to rely upon conceptual models of broadcast television advertising, and experiments have little relation to the actual contexts within which voters are targeted and served tailored information.

As Bennett and Iyengar (2008) argue in their overview of the history of political communication research, scholars need to pay "greater attention to the underlying social and technological context in models of communication processes and their effects so that research findings become more interpretable, cumulative, and socially significant" (p. 709). Taking up this call, we strive to make both an empirical contribution to, and outline a research agenda for, an area of campaign practice that has become a significant new focus for candidates. In this article we aim to both document the emerging practices of online political advertising and outline an agenda for studying its processes and potential effects. To do so, this article proceeds in four parts. We begin by reviewing the literature on online political advertising. Next we detail the methods for this study. We then provide an empirical look at the history of online political advertising over the last decade. We conclude by outlining a research agenda that is grounded in the actual contexts of online political advertising.

Literature Review

As the technologies used by political campaigns evolved over the past decade, the lines around what constitutes an online "advertisement" have continually shifted. While scholars such as Ridout, Fowler, and Bransetter (2010, p. 3) argue for conceptualizing online advertising broadly to encompass all

videos that make an attempt to persuade and that are produced and edited, this definition is not analytically useful given real differences between genres of campaign-produced content.

For the purposes of this article, we define online political advertising as that which (1) campaigns or other political actors produce as discrete components of wider strategic communications efforts, (2) involves systematically evaluating progress toward defined goals through data, and (3) is conducted by a group of specialists recognized as such by their peers. This definition has three central advantages over previous conceptions of online advertising. First, it accounts for the fact that campaigns and other political actors do not produce advertising for simply expressive ends. This narrower definition better captures the actual contexts within which campaigns produce online advertising in pursuit of electoral goals. Second, it encompasses the fundamental, distinctive aspects of online advertising: the ability to narrowly target voters and track the effectiveness of ads in meeting strategic electoral goals. Third, this definition captures how campaigns themselves organize the production of online political advertisements. The staffers, consultants, and firms who handle online advertising are increasingly different from those who design websites or write candidate blogs, and both see themselves and are recognized by others as being involved in a specialized campaign practice (Kreiss, 2012).

This narrower approach defines online political advertising in more traditional ways, encompassing paid online displays and video advertisements, but excluding candidates' websites and e-mail communications as well as user-generated YouTube videos. Campaigns view these things as distinct genres of new media campaign work, with qualitatively different practices around the production, delivery, and evaluation of online advertising.

There is also considerable confusion in the literature around the terminology scholars use to describe online advertising. We follow Kreiss (2012) in adopting the prevailing ways that practitioners themselves speak of their work, for both clarity and correspondence to the contexts of campaigns. In this article, targeting refers to the direct or indirect transmission of specific communications to individuals or groups identified in advance, often through forms of voter modeling detailed below. Tailoring refers to the content of these communications, which campaigners craft to appeal to voters based on their pre-identified interests, affiliations, or demographics.

In the remainder of this section, we discuss three conceptual areas in empirical research on online advertising that scholars have oriented themselves around: content, interactivity, and exposure.

Content

Extending from research on political television advertising, scholars have focused on how the content of online political ads affects attitudes toward candidates—especially along the dimensions of negative versus positive ads, fear appeals, and emotional versus informational ads (for a review of television advertising, see Ridout & Franz, 2011). To date, much work on online political advertising is descriptive, documenting the proportion of positive, negative, and contrastive content and comparing these findings with work on traditional television advertising (Klotz, 1997, 1998). Cornfield (2004) found that in the 2004 election, the content of online ads was mostly either positive or comparative. As in television advertising, political parties and outside groups, not candidates themselves, created the few

negative online ads of the cycle (West, 2010). Scholars noted that during the 2008 presidential election, online advertising began to include sharper negative attacks (Cornfield & Kaye, 2009).

One reason for this rise in negativity is that nearly 60% of the overall primary and general election television advertising during the 2008 cycle was negative, and the candidates placed nearly all of these ads online (West, 2010). Most, if not all, of the ads from the Obama and McCain campaigns in 2008 were available both offline and online, either on the candidates' websites (West, 2010) or on blogs and video viewing sites such as YouTube and Hulu (Cornfield & Kaye, 2009). Ridout, Fowler, and Bransetter (2010) found that negative ads accounted for one-third of online political advertising content on YouTube and that these ads were popular, garnering over half of the viewership for political videos on the site. Political advertising has even become its own genre of videos on YouTube more generally, with video spots being posted by candidates and political parties as well as by citizens and less-formalized civil society groups (Thorson, Ekdale, Borah, Namkoong, & Shah, 2010).

Interactivity

Campaigns have sought to leverage the interactive capacities of online media. New forms of online political advertising go beyond the early online banner ads that contained static and mostly generic content, such as slogans that resembled billboard advertising and bumper stickers (Cornfield, 2004; Cornfield & Kaye, 2009). In 2004, campaigns began to make calls-to-action using online political advertising. Both the Kerry campaign and the Democratic Party ran ads to spur online fundraising, while the Bush campaign and the Republican Party focused on volunteer recruitment and persuasion (Cornfield & Kaye, 2009). During 2008, many online ads—especially those of Obama and Romney—focused on fundraising and encouraging voters to attend campaign events (Cornfield & Kaye, 2009; Kaye, 2007). McCain's ads also promoted online petitions and surveys to help his campaign gather information about potential supporters.

A small body of scholarly work suggests that political advertising online has different effects from television advertising, based on the capacities of the medium. Kaid (2003) found that transferring a television ad to the Internet provides opportunities for outside information-seeking (see also Kaid & Postelnicu, 2005). Scholars have found that viewing political advertising on YouTube led to increased knowledge of candidate issue positions, even when controlling for education, overall news media use, and interest in the election (Winneg, Hardy, & Jamieson, 2010). However, Baumgartner and Morris (2010) found that viewing political messages on new platforms such as YouTube and social networking sites like Facebook does not increase political participation compared to traditional media, and Teresi (2012) found that Facebook ads "liked" by friends have no effect on voting patterns.

Exposure

There have been a few studies about selective exposure in voters seeking out online advertising (Klotz, 2009). The larger concern among scholars is for campaigns using new data-based online advertising practices to selectively expose targeted segments of the electorate to tailored communications designed to appeal to them. These practices are not new. Campaigns have long used different mediums,

such as broadcast and cable television and radio, to deliver select messages to groups based on geographic location and audience demographic and psychographic information (such as profiles of cable channel viewing audiences). Recent, pioneering work has suggested that scholarly assumptions of balanced information flows in television advertising are wrong given "macrotargeting," the ability of campaigns to target segments of the electorate through broadcast advertising buy, which increases the possibility of persuasion (Ridout, Franz, Goldstein, & Feltus, 2012). Meanwhile, direct mail, phone calls, and door-to-door canvassing entail more fine-grained, and increasingly individualized, targeting through commercial marketing data coupled with other public and party data sources that enable political actors to infer voters' political preferences and likelihood to vote (Howard, 2006; Nielsen, 2012; Overby & Barth, 2006; Owen, 2011).

A number of works suggest that these practices are amplified online. Scholars note that the availability of user data on the Internet means that campaigns can now more finely target voters and tailor communications ranging from e-mail to online ads on the basis of behavioral information, such as the websites that users visit or the links and banner ads they click (Howard, 2006; Kreiss, 2012; Owen, 2011). These targeting practices have been evolving since campaigns began to go online, as advances in technology enable campaigns to deliver information to targeted individuals and groups online with greater ease, lower cost, and greater accuracy than in other mediums (Gueorguieva, 2007; Johnson, 2012). The promulgation of these tactics has become a cause of concern for many scholars who worry that highly targeted political communications will limit democratic debate (Bennett & Manheim, 2006), lead to further selective exposure and polarization (Owen, 2011), or erode individuals' privacy and affect the competitiveness of elections (Kreiss & Howard, 2010).

Despite this body of work, there are large gaps in scholarly knowledge about the industry, practices, and effects of online political advertising. We know little about the actual practices of targeting and tailoring advertising to voters. Research studies that conduct fieldwork inside campaigns and interviews with practitioners are rare, while Howard's research for *New Media Campaigns and the Managed Citizen* (2006), the most extensive empirical study of targeting to date, was conducted over a decade ago, before the 2004 presidential cycle.

Methods

This article grows out of a larger book project of the second author (Kreiss, 2012) that tells the history of the Democratic Party's digital political campaigning over the last decade. The findings presented here are drawn from interviews with individuals conducting online political advertising and new media operations for campaigns. Participants were identified through Federal Election Commission filings, organizational records, and snowball sampling based on their involvement in running online advertising programs or managing teams that were, or based on their work in related areas, such as voter data and analytics. Participants included a staffer on and consultant to Al Gore's campaign in 2000 and half a dozen staffers on the Howard Dean and John Kerry campaigns during the 2004 cycle. The second author also conducted interviews with the 2008 Obama campaign's director of Internet advertising, director of analytics, and director of the new media division, in addition to a number of individuals working for Blue State Digital and Voter Activation Network, two firms that provided the campaign's online platform and

voter data interface, respectively. In sum, the research presented here is based on interviews conducted with approximately two-dozen individuals who provided some insight into online political advertising, even if it was not the primary focus of the interview or of that individual's work.

Interviews were open-ended and semistructured and lasted between one and four hours, with the average interview being just over two hours. Participants were asked about all aspects of their work for political campaigns, including their role in the organization, the relationship between online advertising and electoral strategy, and the history of the practice. Participants could declare any statement in their interviews "not for attribution" (i.e., directly quoted but anonymous), "on background" (i.e., not directly quoted), or "off the record" (i.e., not to be reported), at their discretion. Interviews were conducted in-person, on the telephone, and through Internet services such as Skype.

To bring this history up-to-date, we conducted a survey and analysis of journalistic articles on online advertising during the 2012 campaign cycle. In addition to compiling more than 100 articles on technology use during the most recent presidential campaign cycle, the second author is currently conducting interviews with Republican and Democratic staffers from the 2012 campaign cycle for a book project that informs this analysis and provides additional context for journalistic reports.

Results

The developments in online political advertising documented below are the result of the interplay between changing contexts of media use, technological innovation, and evolving campaign practices. First, as a number of scholars have noted, and as campaigns are well aware, audience fragmentation has made it harder to reach broad publics (Bennett & Iyengar, 2008). To compensate, campaigns have increasingly turned to technological innovations in online ad targeting and tailoring, often developed first in commercial contexts. As they have done so, campaigns have changed how they utilize advertising, including moving away from tethering ads to geographical units and designing content to influence vote choice. For example, there has been a growth in "mobilization" advertising, as campaigns direct ads toward identified likely supporters in non-battleground states to raise money or solicit volunteers. In other words, broader shifts in media practice among citizens have developed alongside technological changes and the strategic efforts of campaigns seeking electoral advantage.

We focus here on the online political advertising of Democratic Party candidates and firms given the widely recognized importance of the 2008 and 2012 Obama campaigns in driving innovations in campaign practice.

The 2000 and 2004 Campaign Cycles

Online advertising was at a nascent stage in 2000. There was no online advertising industry specializing in politics, and the campaigns of the cycle were generally limited to running banner advertising on sites across the Web. America Online (AOL), in particular, was the focus of the limited online advertising efforts of the cycle, given that the firm produced an online election guide, with content

from Time Warner, that was the most trafficked site for news and politics about the campaign (Westen, 2001).

The 2004 cycle ushered in a number of innovations in online advertising. The Howard Dean campaign made initial forays into online search and banner advertisements using the interactive, video, and graphical platform Flash, and it generated backend data metrics tracking the effectiveness of ads. For example, the campaign ran large Flash banner advertisements on news sites to drive traffic to DeanforAmerica.com. These ads were timed to coincide with events, such as when Dean made the covers of *Newsweek* and *Time* magazines in August 2003. The campaign also developed scripts to track how many people coming to the Dean campaign's website from the online advertisements made financial contributions. The Dean campaign also put together a Google advertising program.

During the general election, the Kerry campaign developed the most extensive online advertising program in Democratic politics with the help of MSHC Partners, then the largest direct mail firm in the country. According to Michael Bassik (personal communication, May 9, 2011), an online advertising consultant who founded the Interactive Marketing division of MSHC, the campaign's instructions were simple: "In terms of our mandate it was, 'we don't care what the ads say as long as these ads generate a return on investment.'" For the Kerry campaign, "the Internet existed in a vacuum and was only useful as a fundraising medium" (M. Bassik, personal communication, May 9, 2011). MSHC developed more than 100 different ads for the campaign, with fundraising the primary goal. The campaign tested multiple ads in different venues and evaluated returns in real time through user behavioral data. For example, Bassik's team developed online advertisements that varied slightly in content and size and ran these ads simultaneously on different news websites, in different sections (such as *CNN Politics* versus *CNN Money*), with different placement on the pages to see which combinations of concept, size, site, placement, and section performed the best in real time. The metrics for the performance of these ads were impressions, click-throughs, and donations. MSHC also collected data on the average donation and measured the "latent donation" performance of each ad, which entailed analyzing when a person saw a specific ad (in terms of concept, size, site, placement, and section) and when they made a donation on the Kerry site, which could be days later. The campaign then used this data on performance to guide its future ad buys.

MSHC also convinced the Kerry campaign to engage in some persuasion advertising. Bassik made online advertising buys on all the major national news sites and on sites in 16 battleground states for a 24-hour period spanning the evening of the last presidential debate through the following day. On the home pages of these sites, visitors saw a picture of Kerry at the debate podium and the tagline "Ready to lead." Clicking on the ad opened a new page that solicited a donation and urged individuals to vote in the online polls hosted by news organizations asking who won the debate. The ads both made money and drove thousands to participate in these online polls. Meanwhile, in persuasion terms, MSHC commissioned an internal study of these ads and found that those exposed to the ads were more likely to believe that Kerry had won the debate.

The 2008 Obama Campaign

To drive traffic to BarackObama.com, with the goal of garnering funds and volunteers, the Obama campaign's new media division developed an extensive online advertising program. In contrast to the Kerry campaign, the Obama campaign decided that the online advertising program would be handled in-house to save money, which meant that staffers produced all the campaign's ads and negotiated their placement through advertising networks.

The Obama campaign had three primary objectives for its online advertising. The first was to build a robust supporter base. The second was voter mobilization. The final objective was persuasion, which accounted for the majority of the campaign's online advertising expenditures. Staffers measured their progress toward meeting these objectives by clearly specifying the outcomes they desired in each area. With respect to building the supporter base, the campaign sought to use advertising to increase sign-ups to the campaign's e-mail list, drive traffic to the website, and garner donations. Mobilization entailed using online ads for voter registration, early voting, polling and caucus location look-ups, get-out-the-vote operations, and volunteer recruitment for targeted demographic groups and individuals. Persuasion entailed using online ads to expose voters modeled as undecided to targeted issue advertising and drive traffic to applications designed to appeal to undecided voters, such as the "tax cut calculator" that enabled individuals to calculate how much money they would save under Obama's proposed plan.

Online advertising is a "closed loop"; staffers can judge an ad's effectiveness by viewing data on click-throughs. Tracking user behavior in real time enabled staffers to continuously measure these outcomes and calculate returns on investment (ROI) for all the campaign's online advertising. Based on this data, the campaign's online advertisers developed a working social-psychology of browsing to underlay their practice—crafting appeals, testing graphics, making allocative resource decisions, and reformulating goals based on user actions.

Online mobilization advertising was particularly challenging given the need to target groups and individuals by state for electoral purposes. To do so, new media staffers closely collaborated with the field division, which provided the funding for online advertising given that campaign leadership believed online advertising was more cost-effective and had greater reach for some key electoral goals, such as registering voters, than hiring field staffers. Staffers used online advertising to capture e-mail addresses, recruit volunteers, register voters, provide supporters with information on polling locations, and turn them out on election day.

The key to a successful outcome from all these activities was mobilizing only those individuals likely to support Obama. A detailed look at the data infrastructure and analytic practices of modeling voters is beyond the scope of this article (for further details see Kreiss, 2012; Nielsen, 2012). In brief, the campaign's modeling firm, Strategic Telemetry, began its work by taking a poll of a random, representative sample of the electorate. The firm used the information from this poll, starting with which, if any, candidates the polled voters supported, to build models based on the characteristics that Obama supporters and undecided voters had in common. The campaign's data consultants then generated a composite score of likely support for Obama on a 0–100 scale for every member of the electorate, by

layering these models onto the electorate using voter file data. The core of these voter files is public data collected from local, state, and federal records, including information such as party registration, voting history, political donations, demographics, vehicle registration, and real estate records. This data is supplemented with commercial information such as magazine subscription records, credit histories, and even grocery "club-card" purchases. These commercial databases also contain the historical record of canvass contacts across electoral cycles. The campaign's data consultants then continually polled and incorporated the results of field canvasses to test the accuracy of, and update, the campaign's models.

This approach to voter modeling helped the campaign better identify its supporters—and those leaning in the candidate's direction—in order to more efficiently target its contacts. In the context of online advertising, new media staffers used these models to identify advertising targets in each battleground state. Online advertising was allocated toward sites popular with young voters and African American and Latino voters. Staffers used the geo-location targeting made possible by IP addresses to display ads to individuals residing in areas with high concentrations of Democratic voters or that had favorable demographics. The campaign also ran advertising targeted to voter groups and individuals through purchased America Online and Yahoo! user data. Bassik describes the work of one of Obama's data providers, the commercial firm Catalist:

In 2008 Yahoo! partnered with Catalist to do a merge of the Catalist data and the Yahoo! data, so that individual organizations could advertise just to match segments and "look-a-like" segments. For example, say Yahoo! has a list of 100,000 people and Catalist has a list of 100,000 people, and they find 20,000 people in common. Yahoo! then also finds other people within their "network group" that has the same sort of behavior and tries to get a match, so that is the look-a-like audience. And then organizations were invited through this relationship between Catalist and Yahoo! to advertise just for Democrats, just to Republicans, just to independents, that type of thing. Yahoo! provided data back to an independent third party organization in terms of who saw the ads personally, which ads they saw, who clicked, and then they did phone polling to identify whether or not exposure to the ads moved perceptions. (M. Bassik, personal communication, May 9, 2011)

Facebook was also a new advertising vehicle in 2008. The commercial social networking platform provided a wealth of new ways to target groups of voters. Facebook ads were based on a "cost-per-click" model, where campaigns only pay when an individual actually clicks on the ad. The campaign targeted advertising on the site based on a host of different characteristics revealed on voters' Facebook profile pages, from political affiliation and religion to hobbies.

To determine the effectiveness of the advertising campaigns, staffers tracked the ROIs for particular ads over time, such as 30 or 60 days, and for a range of actions. By looking at these ROIs, staffers were able to determine optimal content and placement, and follow the performance of ads over time, for a range of possible actions. Staffers looked at the effectiveness of ads on many levels, such as whether individuals responding to ads to look up their polling place also donated to the campaign. For example, if an individual clicked on an ad and signed up for the e-mail list, staffers followed their actions

to see if they subsequently volunteered, donated, or hosted an event. Staffers then used this information to predict how many more sign-ups or polling place look-ups would happen with each additional dollar invested in advertising. This shaped how the campaign allocated its funds. According to Joe Rospars, the director of the new media division, the campaign could then know

whether our online ad resulted in that person voting absentee or requesting a ballot, and then we also know if that person stays on the e-mail list and winds up donating or goes on to a volunteer activity. So we can measure our ROI for the ad and make all sorts of choices about where to run online ads and how to deal with our budget, through lots of very complicated assessments of our return on investment financially and from a volunteer perspective. (J. Rospars, personal communication, June 25, 2010)

Organizational priorities, in turn, shaped what was seen as “maximizing returns” from online advertising. In the context of fundraising-related advertisements, the campaign was sometimes more than willing to only get back an estimated 50 cents on the dollar for every ad that it ran. This was the case if staffers knew, given the data, that the ad reached people the campaign could not contact through its other outreach efforts, or if the campaign was prioritizing signups to the e-mail list over financial contributions at that time.

The 2012 Presidential Cycle

The growing emphasis on online advertising continued during the 2012 election cycle. Although expenditures on online advertising during this cycle still paled in comparison to broadcast and cable television advertising, online spending has grown far more rapidly (Bachman, 2012), in large part due to overall declines in the consumption of live television, high pricing for television ad buys, and improved online targeting (Davis, 2012; Johnson, 2012; Murphy, 2012). Several trends distinguish online political advertising in 2012 from that of previous cycles, including the increased sophistication of voter targeting and a rise in the use of social media, online video, and mobile technologies by campaigns.

The Obama campaign again demonstrated its competitive advantage in terms of data and analysis over its Republican rival (Issenberg, 2012a). The campaign invested in its data operations early in April 2011 by running field canvassing and by buying and mining vast amounts of data. Expanding on its pioneering voter modeling work in 2008, the Obama campaign used four scores that, on a scale of 1 to 100, modeled voters’ likelihood of supporting Obama, turning out to vote, being persuaded to turn out, and being persuaded to support Obama on the basis of specific appeals (Beckett, 2012b).

This scoring had important implications for online political advertising given the increasing sophistication of voter targeting—especially the ability to match the online and offline identities of voters. Candidates on both sides of the aisle increasingly matched voter files with data from commercial advertising firms that track the online behavior of consumers and registration data from sites such as Yahoo! and Microsoft (Beckett, 2012a). While only anywhere from 60% to 80% of voter records can be matched to an IP address (Delany, 2012b), the Obama campaign’s advances in voter modeling meant that it could deliver more finely targeted and tailored advertising to priority voters in key electoral districts.

Apart from this matching targeting, the campaigns during this cycle also directed their political advertising based on known individual characteristics, such as Democrats who voted in the last election, Latinos living in swing states (Kaye, 2012a), or voters who purchased certain luxury goods (Delany, 2012a). The Obama campaign also used similar strategies to improve the efficiency of traditional television ad buys, identifying persuadable voters' billing files from cable companies, assigning them an anonymous ID number, and using set-top box data to track which time slots offered the largest number of those voters (Issenberg, 2012b).

Both presidential campaigns also expanded the look-a-like matching practices detailed above, where the browsing histories of known supporters of a candidate or political party are used to find other computer users with similar browsing behaviors. Campaigns use cookies to identify and deliver advertising to voters as they browse the Web (Issenberg, 2012a, 2012c). Campaigns looked at what known voters read online, what content they shared, and where they left comments, to find other users like them; the idea being that similar browsing behaviors may predict similar voting behaviors. During the primaries, for instance, the Romney campaign used online survey data to identify voters in Wisconsin who were politically conservative but not yet convinced to vote for Romney. They narrowed this universe down to a specific target (18-year-old, Republican-leaning, dissatisfied with Obama) and then used these people's browsing histories to find and target others with similar Web browsing histories (Peters, 2012).

In addition to targeting voters as they moved across the Web, campaigns also spent record amounts on Facebook advertising in this cycle (Kaye, 2012b), finding that social media is often the best way to quickly reach supporters. Campaigns served geo-targeted ads based on user locations to help drive event attendance (Shepherd, 2012). Campaign staffers also encouraged supporters to share campaign content, including ads, with their social networks on Facebook. This is based on staffers' belief that when a person shares campaign information with friends it adds credibility to the candidates' messages (Naylor, 2012; Peters, 2012), which is consistent with the literature on the persuasive effects of recommendation source (see Hass, 1981). The sharing of campaign content appears to be common: A recent survey found that 34% of those who saw a political message on Facebook or Twitter shared that message with other friends online (Ouimet, 2012).

There was also an increased emphasis on online video ads during the 2012 election (Abse, 2013; Johnson, 2012). These ads were an extension of the online advertising practices of 2008. During that cycle, Romney was the first candidate to use overlay advertising on selected videos that had socially conservative and family-centered keywords tagged in their audio files (Cornfield & Kaye, 2009). This overlay advertising invited users to click to watch a Romney ad on a related topic. In 2012, campaigns began using preroll video ads that run before and after select content on news and video sites such as Hulu and YouTube. Indeed, this has been such an area of growth that Hulu reported that the number of political ads aired on the site in 2012 represents a 700% increase from the past two federal elections (Blumenthal, 2012). Campaigns used video embedded in rich media banner advertisements (Johnson, 2012) and expandable ads delivered to users on top of the page they are on (Abse, 2013). They also further leveraged data to deliver their online video advertising. During the primaries, Romney campaign strategists analyzed online survey data to find voters who were not watching live TV, or voters who are "off-the-grid." The campaign then analyzed their browsing histories and built a model to specifically target

similar voters with online video ads (Peters, 2012). In a feedback loop, in order to improve future targeting and content, the campaign then collected data indicating whether users watched the full video, how long they spent watching it and where they dropped off, if they shared it with friends on Facebook and Twitter, and if they provided their e-mail address to the campaign or donated money (Abse, 2013).

The use of mobile advertising also became more prominent during the 2012 electoral cycle. An estimated 80 million voters accessed political information through their mobile phones, a 200% increase from the 2008 election (Petronzio, 2012). Both the Romney and Bachmann campaigns used click-to-call ads during the primaries, which allowed mobile users to call the campaign from an ad with the click of a button. The Obama campaign advertised in Electronic Arts mobile games such as Scrabble, and the Romney campaign used Facebook Mobile advertising and Apple's iAd program, which places ads in popular iPhone apps. The Romney campaign also worked with Google to target ads specifically to Android phone users (Petronzio, 2012). Mobile Web advertising also offered advanced geo-targeting capabilities, allowing candidates to serve ads to mobile users based on where they were located, such as within a certain radius of sporting events (College Republican National Committee, 2013).

Discussion: Toward a Research Agenda

Scholars need a research agenda that integrates a concern for the changing practices of online advertising with the effects these messages have on individuals and the polity. Based on our reading of the literature and our research on actual campaign practices, the online advertising tested in the laboratory does not remotely resemble online advertising currently used by political campaigns, which creates a serious external validity problem within this area of research. The only remedy is a mixed methods approach that investigates and documents the production and consumption of online political advertising and replicates these campaign practices more realistically in the laboratory, to study their effects.

First, to truly understand the actual production of online advertising, scholars must document and analyze the firms, campaign organizations, staffers, tools, and practices that shape the targeting and tailoring of messages to voters. Second, scholars need to be attentive to the context of campaigns, to discover their practices and how they set goals for online advertising, target individuals and groups of voters, craft content, and continually test the effectiveness of ads.

Suggestions for design: Scholars need to conduct more fieldwork inside campaign organizations, interviews with and surveys of practitioners, and analysis of campaign services in order to stay abreast of changes in contemporary campaigning. Scholars should also utilize Federal Election Commission and other financial data to document and understand the industry that supports online political advertising.

Scholars also need to devise new ways to measure exposure to online political advertisements. Previous measures of ad exposure include self-report surveys and correlations between total ad spending in a media market and voter turnout. These are increasingly flawed. Surveys have limited utility given that voters may see completely different sets and sequences of online political ads. In some cases involving

social media exposure, voters may not even be aware that they saw a political advertisement. At the same time, ad spend by media market does not take into account online ad placements, which are not geographically segmented like television advertising.

Suggestions for design: Survey questions should be split into exposure to different media types, provide respondents with examples for each medium to encourage recall, and specifically ask questions about exposure on social media sites. Self-report surveys could also incorporate open-ended questions asking respondents to describe the ads they saw. Survey and experimental researchers should use services such as Moat.com, which aggregates online advertising from commercial brands and campaigns and provides details on the sites ads appear on, to design stimuli.

Understanding the practice of campaigns and patterns of exposure will enable scholars to design laboratory experiments that have greater external validity. One large issue is contextual. In the real world, online advertising is not encountered in a silo. Online ads are, by definition, seen on a computer, tablet, mobile phone, or some other technological device, and research shows that these devices present unending distractions. In a recent study from Razorfish and Yahoo! mobile, 70% of adult respondents said they multitask at least once a week (Lockhorn, 2012), and multitasking has been found to be even more prevalent among younger generations (Moreno, et al., 2012). The captive audience is a thing of the past, but experiments testing the effects of online advertising in a multitasking context are nonexistent.

Suggestions for design: Researchers should design multitabled browser experiments, experiments involving two or more types of media simultaneously, or at least experiments which involve a distraction task or some other cognitive load manipulation to better assess online advertising's effects under more realistic conditions.

Similarly, experiments should better reflect the situations in which Internet users encounter online political ads. In an attempt to isolate effects, online ad experiments often focus on the ad itself. But on the Internet, users have gone online to watch an episode of a television show, or a YouTube video, or to see their friends' updates on Facebook. Online advertising is either an interruption of the primary task or something happening on the sidelines.

Suggestions for design: Experiments should be designed more realistically, with other tasks positioned as the focus of the experiment and participants viewing the ad while the other activities are taking place. After the primary task is over, participants can be asked about their attitudes toward the political candidate or the ad itself. This type of design, which is similar to studies at advertising agencies, would help researchers understand the conditions under which online advertising is either more or less effective.

As detailed above, studies of online political advertising content tend to be limited to descriptions of positive, negative, and contrastive ads. However, real-world online ads use calls-to-action that ask voters to sign up for an e-mail list, attend a local event, click to give money, or volunteer for a campaign. Researchers need to consider whether these types of ads change voter attitudes or behavior, which

characteristics of ads lead voters to take action, and which characteristics of the target make certain responses more likely.

Suggestions for design: Researchers should study the actual content of online ads used by campaigns, especially with an eye to the responses ads are attempting to elicit from voters. Experiments involving online political advertising should test various calls-to-action and also a wider range of potential effects, including effects on political attitudes, candidate preference, online information seeking, and political engagement.

Relatedly, the most important area not reflected in existing studies of online political advertising is the voter targeting and tailored online advertising increasingly used by political campaigns. The gaps in this area of research are troubling, considering that this was the most significant trend in online advertising over the last decade. While research in politics is lacking, the effects of highly personalized messages have been widely tested in other fields (see Kalyanaraman & Sundar, 2006, for a review). These studies have found that the more closely linked messages are to aspects of the self the more persuasive the messages are, and respondents gravitate toward arguments that match their own viewpoints (Greenwald & Albert, 1968). Initial studies in the political domain suggest that targeting and tailoring may also have similar effects. In a set of face-morphing experiments, Bailenson, Iyengar, Yee, and Collins (2008) found that voters preferred candidates high in facial similarity to themselves, even in high-profile elections, especially with unfamiliar candidates.

Suggestions for design: Experiments need to test the differences in effects between content that has been tailored based on demographic information (age, gender, geography, etc.), attitudes and preferences, and online behaviors (including shopping behavior, keyword searches, the text of e-mails, etc.). Studies must also test the effects of tailoring across different online advertising formats, such as banner ads, online videos, social media, and online search results. For example, subjects can be surveyed beforehand about their demographic information and various preferences, and stimulus materials individually tailored to participants can then be created. Scholars also need to integrate more programming techniques into experiments, to enable an ad to be automatically populated with information entered by a participant, or to link different advertising stimuli to various keywords that may be entered by a user.

Researchers should also examine whether effects differ based on the source of the online political ad—and whether that source is truly known to the recipient. There is a hefty literature on source effects in advertising, but it is rarely applied to online political ads. Currently, online political advertising is a prime context in which to study source effects, considering the prevalent role Super PACs have played in recent elections, especially the 2012 election. Researchers should ask what happens when online ads are not explicitly affiliated with a candidate's campaign but are instead attributed to either clearly or vaguely named public interest groups. How might this impact political attitudes and behaviors, such as attention to the message or voter trust in the candidate? Further, a few recent studies have shown that campaigns are encouraging the social sharing of content, including political ads (Kaid, 2006). The persuasive effects of political advertising when voters are exposed to messages through social ties is not well known, although

initial work suggests that online sources are very important (English, Sweetser, and Ancu, 2011).

Suggestions for design: Experiments designed to test differences in the effects of online political advertising when the messages are not officially “approved” by candidates should be fairly simple to devise. Study designs should also offer participants the chance to share content with friends or incorporate advertising into a social networking context, such as making content appear to be passed along by a peer. Incorporating sharing also provides an additional behavioral measure for researchers to assess.

Another area that continues to be a challenge for studies of online political advertising is the subject population. As with many experiments, those involving online political advertising tend to use convenience samples of college students. The subject population in experiments of online political advertising absolutely needs to be as diverse as the electorate. College students tend to be heavy users of online media, so the effects of online political advertising on this population may not be representative of the broader electorate, which may not be as Web-savvy as college students. Additionally, the way campaigns appeal to the youth vote is different from the way campaigns appeal to other segments of the electorate, and this becomes especially salient when studying tailored online political advertising.

Suggestions for design: Subject populations should reflect the demographic makeup of the actual electorate. Experimentalists need to go beyond their universities to recruit a more representative subject pool.

Finally, as scholars such as Green and Gerber (2003) have argued, surveys, field observations, and experiments present inherent challenges for drawing causal inferences about campaigns.

Suggestions for design: Researchers should collaborate with campaigns to design field experiments that improve both sample diversity and external validity. These experiments can be done at little to no cost to campaigns and may even be considered an asset (Issenberg, 2012d.)

Conclusion

Following Bennett and Iyengar’s (2008) call, we believe that scholars need new interdisciplinary and mixed methodological approaches of studying the changing forms and contexts of political advertising in the digital era. In contrast to static, one-way broadcast ads, campaigns have developed new forms of online political advertising that reflect a multiplicity of goals and tactics tied to electoral contexts, feature rich new sources of data and analytic techniques used to target the electorate and tailor messages, and leverage horizontal social information flows.

To date, existing scholarship on online political advertising has focused on content, interactivity, and exposure. This research approach will need to be both further developed and reconceptualized, given continual technological and social change. This article provides a starting point for developing new research designs to analyze the content of online ads, the interactive capacities of media and the organizational goals that shape them, and the proliferating avenues and new contexts for exposure to strategic communications.

References

- Abse, N. (2013). Big data and microtargeted political ads in election 2012: The challenge ahead. *IAB Presents: Innovations in Web Marketing and Advertising*. Retrieved from http://www.iab.net/media/file/IAB_Big_Data_and_Microtargeted_Political_Ads_in_Election_2012_Final.pdf
- Bachman, K. (2012, March 8). Forecast: Online political ad spend still tiny. *Adweek*. Retrieved from <http://www.adweek.com/news/online/forecast-online-political-still-tiny-138810>
- Bailenson, J. N., Iyengar, S., Yee, N., & Collins, N. A. (2008). Facial similarity between voters and candidates causes influence. *Public Opinion Quarterly*, 72(5), 935–961. doi:10.1093/poq/nfn064
- Baumgartner, J. C., & Morris, J. S. (2010). MyFaceTube politics. *Social Science Computer Review*, 28(1), 24–44. doi:10.1177/0894439309334325
- Beckett, L. (2012a, June 11). How Microsoft and Yahoo are selling politician access to you. *ProPublica*. Retrieved from <http://www.propublica.org/article/how-microsoft-and-yahoo-are-selling-politicians-access-to-you>
- Beckett, L. (2012b, November 29). Everything we know (so far) about Obama's big data tactics. *ProPublica*. Retrieved from <http://www.propublica.org/article/everything-we-know-so-far-about-obamas-big-data-operation>
- Bennett, W. L., & Iyengar, S. (2008). A new era of minimal effects? The changing foundations of political communication. *Journal of Communication*, 58(4), 707–731. doi:10.1111/j.1460-2466.2008.00410.x
- Bennett, W. L., & Manheim, J. B. (2006). The one-step flow of communication. *The ANNALS of the American Academy of Political and Social Science*, 608(1), 213–232.
- Blumenthal, P. (2012, October 5). Hulu political advertising jumped 700 percent in 2012. *Huffington Post*. Retrieved from http://www.huffingtonpost.com/2012/10/05/%20hulu-political%20advertising_n_1943111.html?utm_hp_ref=elections-2012
- College Republican National Committee (CRNC). 2013. Grand Old Party for a new brand generation. Retrieved from: <http://www.crncc.org/>
- Cornfield, M. (2004). Presidential campaign ads online. *Pew Internet and American Life Project*. Retrieved from <http://www.pewinternet.org/Reports/2004/Presidential-Campaign-Ads-Online.aspx>
- Cornfield, M., & Kaye, K. (2009). Online political advertising. In C. Panagopoulos (Ed.), *Politicking online* (pp. 163–176). Piscataway, NJ: Rutgers University Press.

- Davis, N. (2012, February 17). The 2012 election goes hyperlocal with targeted online ad buys. *Street Fight*. Retrieved from <http://streetfightmag.com/2012/02/17/the-2012-election-goes-hyperlocal-with-targeted-online-ad-buys>
- Delany, C. (2012a). Cookie-based, voter-file ad targeting: From exotic to expected in six months. *ePolitics*. Retrieved from <http://www.epolitics.com/2012/05/06/cookie-based-voter-file-ad-targeting-from-exotic-to-expected-in-six-months>
- Delany, C. (2012b). Voter file digital ad targeting. *Campaigns & Elections*. Retrieved from <http://www.campaignsandelections.com/magazine/us-edition/324582/voter-file-digital-ad-targeting-reality-vs-hype.html>
- English, K., Sweetser, K. D., & Ancu, M. (2011). YouTube-ification of political talk: An examination of persuasion appeals in viral video. *American Behavioral Scientist*, 55(6), 733–748. doi:10.1177/0002764211398090
- Franz, M. (2013, May 6). Who won the ad war? [Web log post]. Retrieved from <http://themonkeycage.org/2013/05/06/who-won-the-ad-war>
- Green, D. P., & Gerber, A. S. (2003). The underprovision of experiments in political science. *The ANNALS of the American Academy of Political and Social Science*, 589(1), 94–112. doi:10.1177/0002716203254763
- Greenwald, A. G., & Albert, R. D. (1968). Acceptance and recall of improvised arguments. *Journal of Personality and Social Psychology*, 8(1), 31–34. doi:10.1037/h0021237
- Gueorguieva, V. (2007). Voters, MySpace, and YouTube: The impact of alternative communication channels on the 2006 election cycle and beyond. *Social Science Computer Review*, 26(3), 288–300. doi:10.1177/0894439307305636
- Hass, R. G. (1981). Effects of source characteristics on cognitive responses and persuasion. In T. M. Ostram & T. C. Brock (Eds.), *Cognitive responses and persuasion* (pp. 141–172). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Hendricks, J. A., & Denton, R. E., Jr. (2010). *Communicator-in-chief*. New York, NY: Lexington Books.
- Howard, P. N. (2006). *New media campaigns and the managed citizen*. Boston, MA: Cambridge University Press.
- Issenberg, S. (2012a, April 26). The creepiness factor: This could have been the election when web-based advertising changed everything. What happened? *Slate*. Retrieved from http://www.slate.com/articles/news_and_politics/victory_lab/2012/04/web_based_political_ads_why_they_scare_the_obama_and_romney_campaigns.html

- Issenberg, S. (2012b, December 18). A more perfect union. *MIT Technology Review*. Retrieved from <http://www.technologyreview.com/featuredstory/508856/obamas-data-techniques-will-rule-future-elections>
- Issenberg, S. (2012c, December 19). The definitive story of how President Obama mined voter data to win a second term. *MIT Technology Review*. Retrieved from: <http://www.technologyreview.com/featuredstory/509026/how-obamas-team-used-big-data-to-rallyvoters>
- Issenberg, S. (2012d). *The victory lab*. New York, NY: Crown.
- Johnson, R. (2012). Online advertising heats up for 2012 election cycle. *WPP.com*. Retrieved from <http://www.wpp.com/wpp/marketing/digital/online-advertising-heats-up.htm>
- Kaid, L. L. (2006). Political web wars: The use of the Internet for political advertising. In A. P. Williams & J. C. Tedesco (Eds.), *The Internet election: Perspectives on the web in campaign 2004* (pp. 67–82). Lanham, MD: Rowman & Littlefield.
- Kaid, L. L. (2003). Comparing Internet and traditional media: Effects on voters. *American Behavioral Scientist*, 46(5), 677–691.
- Kaid, L. L., & Postelnicu, M. (2005). Political advertising in the 2004 election. *American Behavioral Scientist*, 49(2), 265–278. doi:10.1177/0002764205279421
- Kalyanaraman, S., & Sundar, S. S. (2006). The psychological appeal of personalized content in Web portals: Does customization affect attitudes and behavior? *Journal of Communication*, 56(1), 110–132. doi:10.1111/j.1460-2466.2006.00006.x
- Kaye, K. (2006, November 6). Online political ad spending down from '04 national election. *ClickZ*. Retrieved from <http://www.clickz.com/clickz/news/1694058/online-political-ad-spending-down-04-national-election>
- Kaye, K. (2007, November 15). Presidential hopefuls go on attack with most ads ever in October. *ClickZ*. Retrieved from <http://www.clickz.com/showPage.html?page=3627610>
- Kaye, K. (2009, January 6). Google grabbed most of Obama's \$16 million in 2008. *ClickZ*. Retrieved from: <http://www.clickz.com/clickz/news/1703163/google-grabbed-most-obamas-usd16-million-2008>
- Kaye, K. (2012a). Romney ad firm partners for big data on Hispanics. *ClickZ*. Retrieved from <http://www.clickz.com/clickz/news/2171497/romney-firm-partners-hispanics>

- Kaye, K. (2012b). The state of online political advertising. *ClickZ*. Retrieved from www.law.yale.edu/documents/pdf/ISP/Kate_Kaye.pdf
- Kenski, K., Hardy, B. W., & Jamieson, K. H. (2010). *The Obama victory*. New York, NY: Oxford University Press.
- Klotz, R. (1997). Positive spin: Senate campaigning on the Web. *PS: Political Science and Politics*, 30(3), 482–486. doi:10.2307/420127
- Klotz, R. (1998). Virtual criticism: Negative advertising on the Internet in the 1996 senate races. *Political Communication*, 15(3), 347–365. doi:10.1080/105846098198939
- Klotz, R. (2009, April 1). *The sidetracked 2008 YouTube Senate campaign*. Paper presented at the annual conference of the Journal of Information Technology and Politics, Amherst, MA.
- Kreiss, D. (2012). *Taking our country back: The crafting of networked politics from Howard Dean to Barack Obama*. New York, NY: Oxford University Press.
- Kreiss, D., & Howard, P. N. (2010). New challenges to political privacy: Lessons from the first U.S. presidential race in the Web 2.0 era. *International Journal of Communication*, 4, 1032–1050.
- Lockhorn, J. (2011). Forget mobile—think multiscreen. *Outlook Report*, 10, 15–22. Retrieved from <http://razorfishoutlook.razorfish.com/>
- Moreno, M. A., Jelenchick, L., Koff, R., Eikoff, J., Diermyer, C., & Christakis, D. A. (2012). Internet use and multitasking among older adolescents: An experience sampling approach. *Computers in Human Behavior*, 28(4), 1097–1102. doi:10.1016/j.chb.2012.01.016
- Murphy, T. (2012, Nov. 15). Under the hood of Team Obama's tech operation. *Mother Jones*. Retrieved from <http://www.motherjones.com/politics/2012/11/inside-obama-campaign-tech-operation>
- Naylor, B. (2012, May 3). That new friend you made on Facebook? He might be named Mitt or Barack. *NPR.org*. Retrieved from <http://www.npr.org/blogs/itsallpolitics/2012/05/03/151879422/that-new-friend-you-made-on-facebook-he-might-be-named-mitt-or-barack>
- Nielsen, R. K. (2012). *Ground wars: Personalized communication in political campaigns*. Princeton, NJ: Princeton University Press.
- Ouimet, M. (2012, September 8). Who's winning the 2012 social media election? *Inc.com*. Retrieved from <http://www.inc.com/maeghan-ouimet/social-media-campaigns-election-2012-obama-romney.html>

- Overby, L. M., & Barth, J. (2006). Radio advertising in American political campaigns. *American Politics Research* 34(4), 451–478.
- Owen, D. (2011). The complex interplay of old and new forms. In S. K. Medvic (Ed.), *New directions in campaigns and elections* (pp. 145–162). New York, NY: Routledge.
- Peters, J. W. (2012, April 1). As TV viewing habits change, political ads adapt. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/04/02/us/politics/as-tv-viewing-habits-change-political-ads-adapt.html>
- Petronzio, M. (2012, October 2). Politics transformed: The high-tech battle for your vote. *Mashable*. Retrieved from <http://mashable.com/2012/10/02/mobile-election-2012>
- Ridout, T. N., Fowler, E. F., & Branstetter, J. (2010). *Political advertising in the 21st century: The rise of the YouTube ad*. Paper presented at the annual meeting of the American Political Science Association, Washington, DC.
- Ridout, T. N., & Franz, M. M. (2011). *The persuasive power of campaign advertising*. Philadelphia, PA: Temple University Press.
- Ridout, T. N., Franz, M. M., Goldstein, K. M., & Feltus, W. J. (2012). Separation by television program: Understanding the targeting of political advertising in presidential elections. *Political Communication*, 29(1), 1–23.
- Scola, N. (2012, January 18). Doing digital for Romney: An interview with Zac Moffat. *The Atlantic*. Retrieved from <http://www.theatlantic.com/politics/archive/2012/01/doing-digital-for-romney-an-interview-with-zac-moffatt/251495>
- Shepherd, S. (2012, March 11). Gingrich pins hopes on hashtags. *CNN*. Retrieved from <http://www.cnn.com/2012/03/10/politics/gingrich-social-media/index.html>
- Stampler, L. (2012, November 5). Obama spent more on online ads than it cost to build the Lincoln Memorial. *Business Insider*. Retrieved from <http://www.businessinsider.com/infographic-obama-romney-final-ad-spend-2012-11>
- Teresi, H. (2012). Wired for influence: A series of experiments evaluating the ability of peer interaction through social network sites to influence political knowledge, attitudes, and behavior. *Political Science Dissertations*. Retrieved from http://digitalarchive.gsu.edu/political_science_diss/22
- Thorson, K., Ekdale, B., Borah, P., Namkoong, K., & Shah, C. (2010). YouTube and Proposition 8. *Information, Communication & Society*, 13(3), 325–349. doi:10.1080/13691180903497060

- Turow, J., Delli Carpini, M. X., Draper, N., & Howard-Williams, R. (2012). Americans roundly reject tailored political advertising. *Annenberg School for Communication*. Retrieved from <http://graphics8.nytimes.com/packages/pdf/business/24adco.pdf>
- Vega, T. (2012, February 12). Online data helping campaigns customize ads. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/02/21/us/politics/campaigns-use-microtargeting-to-attract-supporters.html?pagewanted=all>
- West, D. M. (2010). *Air wars: television advertising in election campaigns, 1952–2008* (5th ed.). Washington, DC: CQ Press.
- Westen, T. (2001). Electronic Eemocracy (Ready or not, here it comes). *Advisory Committee to the Congressional Internet Caucus*. Retrieved from <http://www.netcaucus.org/books/egov2001/pdf/edemoc.pdf>
- Winneg, K. M., Hardy, B. W., & Jamieson, K. H. (2010). Did citizens' preferences for online sources for campaign information impact learning during the 2008 presidential campaign? Paper presented at the annual meeting of the American Political Science Association, Washington, DC.