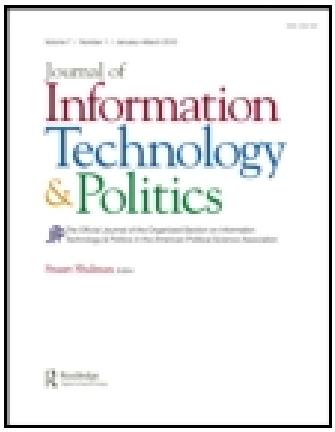

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Digital Media in the Obama Campaigns of 2008 and 2012: Adaptation to the Personalized Political Communication Environment

Bruce Bimber

ABSTRACT. This essay provides a descriptive interpretation of the role of digital media in the campaigns of Barack Obama in 2008 and 2012 with a focus on two themes: personalized political communication and the commodification of digital media as tools. The essay covers campaign finance strategy, voter mobilization on the ground, innovation in social media, and data analytics, and why the Obama organizations were more innovative than those of his opponents. The essay provides a point of contrast for the other articles in this special issue, which describe sometimes quite different campaign practices in recent elections across Europe.

KEYWORDS. Data analytics, election of 2008, election of 2012, Obama, online campaigns, social media

Election campaigns are communication campaigns. Throughout the sweep of democratic history, changes in communication environments have precipitated adaptation on the part of parties and other intermediary organizations that link citizens to democratic institutions, as well as on the part of citizens themselves. In these ways, changes in the practices of democratic competition have reflected changes in communication environments. In principle, it is therefore possible to trace linkages from technological innovation to changes in the larger political communication system, and on to the choices, strategy, and adaptation of political actors. The exercise of power and the configuration of advantage and dominance in democracy are linked to technological change.[1]

In policy-advocacy arenas and in social movements, the digital media revolution has already led to demonstrable changes in the structure and strategy of political organizing around the world (Bennett & Segerberg, 2013; Bimber, 2003; Bimber, Flanagin, & Stohl, 2012; Chadwick, 2007; Karpf, 2012). As the articles in this special issue show, in the electoral arena campaigns for office taking place across the West in the last five years have also reflected the rapid process of adaptation by political elites to a changing environment for communication. For example, as Koc-Michalska and colleagues (2014) show, in Poland, parties and candidates have adapted by offering more personalized images to citizens while also trying to limit the citizen interaction and expression that are facilitated by the digital media environment. Hansen and Kosiara-Pederson (2014) find variation in adaptation across parties in Denmark, while Koc-Michalska, Gibson, and Vedel (2014) argue

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that, in France, weaker parties have adapted to the new environment as effectively as have their larger, richer counterparts. Marcinowski, Metag, and Wattenberg (2014) find that in a state-level German election, the personal experience of candidates with digital media predicts the sophistication of their campaigns' use of new media tools.

The U.S. presidential elections of 2008 and 2012 together provide a vivid illustration of the adaptation of political elites to the contemporary communication environment, which is still changing rapidly due to technological advance. In his 2008 run for the presidency, Barack Obama made the most sophisticated and intensive use of digital media of any major candidate for office in the U.S., and arguably of any candidate running for national office anywhere at that point. By 2012, when he ran for re-election, his innovations of the prior four years had been well studied by his new opponent, as they had by candidates and parties in other countries; but in his re-election bid, Obama introduced a new wave of technical innovation employing large-scale data analytics and behavioral modeling. His use of social media was no more than one of many factors in his win in 2008, while his campaign's adaptation to new technical possibilities had a more distinct effect on his success in 2012.

In this essay, I provide a descriptive interpretation of the presidential campaigns of Barack Obama in 2008 and 2012. Good accounts of these campaigns and their use of digital media are now available (Kreiss, 2012; Stromer-Galley, 2013). In my own interpretation of the 2008 election, I draw chiefly from the research literature now available about it. Writing from a perspective not long after the election of 2012, I provide an interpretation of this more recent campaign based chiefly on early academic studies, journalistic reports, and publicly available data including surveys and Federal Election Commission filings.

My goal is to identify some of the key developments that at this point seem crucial in understanding this pair of elections and what they tell us about adaptation in the U.S. electoral arena. These developments include the following: a high degree of emphasis on individual voter mobilization on the ground—a once-crucial strategy that for some decades was greatly eclipsed in the U.S. by television advertising; lopsided innovation between Obama and his opponents; the amplified role of money in U.S. campaigns; and a contest over expert authority in election campaigns, when evidence-based analysis in 2012 challenged the status of political consultants and advisors who rely on informal judgment and political intuition.

In describing these developments, I aim to provide a point of contrast for the other essays in this special issue. I start with the assumption that, as many authors have noted, the U.S. is an electoral outlier rather than modal case in many respects, and this is no less true where digital media are concerned than in other aspects of democratic process and structure.

My interpretation of the U.S. campaigns is focused around the following thesis. In both 2008 and 2012, digital media provided opportunities for strategic as well as tactical innovation in electoral contexts where *personal political communication is crucial*. The result was a combination of new tactics, especially in mobilization of voters, along with some important new strategic innovations, especially involving fundraising and integration of social media tools with core campaign activities. In 2008, the new political communication environment permitted Obama to embrace social-movement–like enthusiasm and personalized entrepreneurialism among his supporters while also running a highly disciplined, centrally organized campaign. Given the special character of U.S. campaign finance and organizational structure, some of these innovations do not resonate with how candidates and parties have adapted in Europe. In 2012, in the context of lowered voter turnout and dissipated enthusiasm, the Obama campaign exploited data analytics to engage in an unprecedented level of personalized message-targeting in a handful of states, in order to win a closer election with highly honed, state-by-state tactics. The U.S. is unusual because of its comparatively low voting rates but comparatively high use of digital media in campaign activities. This reflects special problems with the American electoral system that dampen turnout, rather than being a product of a general

turn away from the public sphere; in other arenas such as contacting public officials, joining civic associations, or engaging in political consumerism, U.S. citizens remain comparatively highly engaged. The shift toward personalized political communication in the U.S. that I describe here is not mirrored in other countries at this point. Among other reasons, privacy regulations prevent parties and candidates in many countries from engaging in the practices undertaken in the U.S., especially in 2012, and polarization within the U.S. electoral college system places a special premium on campaign communication to relatively small groups of citizens residing in a handful of competitive states and counties.

A theme that arises in the U.S. elections of 2008 and 2012 is what Vaccari (2010) refers to as the commodification of digital media. Digital media tools in the U.S. have become part of the larger media context in which politics occurs and in which all candidates operate (Bimber, Flanagin, & Stohl, 2012). In both U.S. elections, one candidate employed richer and more sophisticated tools than the other. Yet the trend is clear: U.S. presidential campaigning is rapidly arriving at a technological asymptote in which new tools are broadly available to candidates of both major parties, and in which scholars can learn little from comparing which candidate has more, or better, technology. Similarly, it is of diminishing value to assess which citizens use technology more or less (Bimber & Copeland, 2013). A lot of effort has gone into studying variation in use of digital media as the dependent variable in European and U.S. campaigns. This is what Hansen and Kosiara-Pederson (2014) in their study of Danish parties aptly refer to here as variation in uptake of the technology. The situation in the U.S. is different. It is not that communication technologies are no longer changing, but that simple measures of variation in tool use among elites or among citizens do not illuminate much.

As digital tools—which will continue to change—saturate the political communication system, the interesting questions will involve the strategies and content of political communication undertaken by elites in an environment of ubiquitous technology. At this stage, commodification of digital media tools is less far along in Congressional elections as well as state and local elections in the U.S. This is especially the case with behavioral modeling, which was used so advantageously by Barack Obama in 2012, as we will see below. And as many of the contributors to this special issue show, there is still considerable variation in use of digital media across Europe. An interesting question raised collectively in this issue is: At what point will the period of uptake of digital media tools end in Germany, France, Poland, Denmark, and elsewhere in Europe, and what will the configuration of political power look like when that process is over?

THE SETTINGS FOR THE U.S. ELECTIONS OF 2008 AND 2012

Immediately after the 2008 election in the U.S., political commentator Arianna Huffington voiced the thoughts of a number of observers when she claimed that Obama would not have been elected without the Internet (Hendricks & Denton, 2010; Schiffman, 2008). That kind of hyperbole lets the rest of the campaign and election fall out of focus. But it is true that the Obama election was the object of scrutiny not just by other candidates in the U.S., but by parties and candidates in other countries, including Germany, as Römmele and Copeland (2014) observe in this issue. Many factors strongly favored a win by the Democratic party candidate in 2008, regardless of specific campaign effects. The least popular sitting president in decades, George W. Bush, was dragging down the prospects for his party. The economic crisis of 2008 disfavored the incumbent party, and an unpopular war in Iraq started on the basis of false intelligence also rested in the hands of the Republican administration. The heir to Bush, John McCain, was viewed coolly by elements of his party. Reflecting a variety of these factors, especially the economic fundamentals in 2008, many forecasting models predicted a Democratic win (Campbell, 2008).

Against this background, Obama ran a hugely successful campaign in which unprecedented levels of spending in support of carefully crafted

messages had a measurable influence on support for him over time and across location (Hardy et al., 2010). For many citizens favorable to Obama, the 2008 campaign exhibited some of the characteristics of a social movement, especially a sustained sense by a wide range of organizations and people that long-term problems in the status quo could be changed through public involvement. For different elements of the proto-movement, the focus was variously on environmental problems and the need for new sources of energy, a desire to remedy the nation's crisis in healthcare opportunity, the antiwar movement, the desire to end a conflict started on the basis of false claims, and a potential milestone in civil rights, for African-Americans as well as gays and lesbians. It is incorrect to think about digital media as being an independent and necessary factor in Obama's win in 2008, as Huffington's remark implies, though as we will see, it was an integral part of his successful campaign.

The 2012 electoral setting differed in important ways. First, in his re-election bid, Obama ran in the absence of the social movement-like enthusiasm of the previous cycle. Few of the Democrats who had been so excited in 2008 about long-term change felt satisfied with what had transpired across the intervening four years. Obama was an incumbent who had failed to live up to the wide array of expectations of the 2008 movement, and so the 2012 contest was more a routine election between an incumbent and challenger than a call for long-term change in the status quo. In 2012, there were no parallels to the Obama Girl or Yes We Can videos emerging from the movement and symbolizing citizen enthusiasm for his campaign through digital media. Unemployment of about 8%, the highest for any incumbent since Franklin Roosevelt, provided the primary obstacle to re-election. Pre-election forecast models predicted a close race rather than a clear win for Obama (Campbell, 2012).

Lack of enthusiasm was reflected in turnout, which fell from 62.2% of eligible voters in 2008 to 58.7% in 2012 (MacDonald, 2013), making this the first election since 1996 in which turnout did not rise. Obama himself received about 3.5 million *fewer* votes in 2012 than 2008, across a period in which the U.S. voting-eligible population grew by about 8 million (American Presidency Project, 2012; MacDonald, 2013).

There is some debate about how to interpret the authenticity and genuineness of the ways that citizens became involved with the Obama campaigns, especially in 2008. Without question the new context for campaigns afforded citizens more ways of interacting with the campaigns and expressing themselves. They could "like" Obama on Facebook, post comments about their feelings for friends to see, watch and comment on "viral" videos (especially in 2008) such as Obama Girl and Yes We Can, make and display their own images or video, tweet or retweet messages about the campaigns (especially in 2012), donate money at the moment when feeling moved to do so, and be engaged in other ways that were largely novel. They could amplify and comment on news and political comedy, such as the Sarah Palin interview by Katie Couric or *Saturday Night Live*'s parody of it in 2008 and the surprising Obama-Romney debates of 2012.

To some observers, this interactivity and multiplicity of opportunities for involvement simply constitute the hyper-management and control of citizens by campaigns rather than a meaningful shift toward more deliberative processes or toward more real citizen influence on the actions or positions of candidates (Stromer-Galley, 2013). After the 2004 election, Bennett (2008), Foot and Schneider (2006), and others had noted that many approaches to digital media used by candidates and campaign organizations up to that point had not appealed much to younger citizens, who found them inauthentic and an extension of their jaded experience of commercial advertising culture. In this view, digital media up through 2004 had indeed been largely an amplified version of traditional politics in line with Howard's (2005) concept of the "managed citizen."

Yet there are good reasons to think the social movement–like impulses of 2008, though not so much citizens' behavior in 2012, exemplify what Dalton (2007, 2008) has described as the shift toward engaged norms of citizenship, which promote participation in extra-institutional forms of expression and activism.

Bennett (1998) describes this as the rise of "lifestyle politics," in which political expression through daily choices about routine matters of lifestyle are ascendant over traditional, institution-centric forms of participation. In this view, achieving deliberative democracy or other normative goals is beside the point and too much to ask in any event; the question is how to understand changed norms and patterns of behavior in the context of changing political communication. While 2008 suggested the capacity of social media to sustain social movement–like enthusiasm and considerable citizen initiative, in 2012, with fewer voters supporting Obama and less overall voter enthusiasm, it was more clear that the huge and well-resourced digital media machine of the campaign was integral to his win.

DIGITAL MEDIA IN THE 2008 ELECTION

The Obama Approach to the Changed Communication Context in 2008

Since the late 1990s, observers of digital media in the U.S. anticipated the emergence of an "Internet candidate" who would use the medium decisively, much like John Kennedy had benefitted from television in 1960. Over the years, a number of politicians' names were discussed for that title, including Jesse Ventura, who won the Minnesota governorship in 1998, and Howard Dean for his enthusiastic but short-living primary race in 2004. John McCain himself briefly could claim that title in the 2000 race after his upset win in the New Hampshire primary. After the election of 2008, observers agreed that Obama was this figure (Vaccari, 2010). *The New York Times* wrote: "One of the many ways that the election of Barack Obama as president has echoed that of John F. Kennedy is his use of a new medium that will forever change politics. For Mr. Kennedy, it was television. For Mr. Obama, it is the Internet" (Miller, 2008).

In what sense is it useful to think of Obama as the "Internet candidate?" If it is helpful at all, it is because Obama employed many digital tools in order to be successful with traditional elements of campaigning, rather than because he employed any particular Internet technology in a crucial way. One approach in scholarship on digital media and elections has focused on tabulating the specific tools employed by candidates or parties, assessing the degree of "interactivity" provided by Web sites, and interpreting political success in light of specific tools or degree of sophistication with them. This approach is not helpful to understanding the Obama campaign of 2008. His campaign used Facebook as well as many other social media sites, including Digg, Flikr, LinkedIn, and MiGente. It innovated with SMS, using text messages to stay in touch with supporters in a way that provided immediacy and sometimes even excitement, as in the announcement of his running mate. Not only did the campaign use traditional e-mail heavily, but it was quite experimental with unproved approaches, such as buying virtual advertising space from video game maker Electronic Arts, such that Obama ads appeared on billboards inside games. The campaign used YouTube very heavily, where it posted its own videos and encouraged supporters to post as well. It hired a commercial advertising service to promote the campaign's YouTube videos with blogs such as the Huffington Post and Politico. The closest thing to a centerpiece of the campaign's broad online presence was its own social media site, MyBO. This site provided registered users with activism tools such as phone banking and volunteer coordination.

Together, the broad portfolio of communication media embraced by the campaign allowed citizens to match their own personalized interests and styles of participation to what the campaign was doing. This same phenomenon appears in interest groups, which have created opportunities through digital media for citizens to define their own style of participation while maintaining centralized control over the organization's agenda (Bimber, Flanagin, & Stohl, 2012). Obama's approach to digital media constituted a strategic decision to embrace a wide variety of communication opportunities and to integrate these with the fundamental tasks of the campaign, such as managing volunteers, raising money, and making important announcements (Cogburn & Espinoza-Vasquez, 2011; Stromer-

Galley, 2013). This strategy meant that there was no "online campaign" or "Internet campaign" that stood in distinction to the "offline" campaign. There was a single campaign pursuing traditional campaign goals in a way that aggressively exploited the communication environment associated with digital media.

The Obama campaign of 2008 benefitted from the changed context for communication in two ways: fundraising and a highly personalized "ground game." He was the first candidate since the public funding system for presidential races began in 1976 to decline federal funds and the spending limits that come with them in order to raise and spend an unlimited amount. Digital media were a central reason why he chose this strategy. His campaign calculated, correctly, that it could raise a great deal of money in small amounts online. Political donations online were first authorized by the Federal Election Commission in 1999, and since then it had become clear to careful observers that online donations offered immediacy: a campaign could exploit supporters' reactions to news and political events in real time, asking for money at the very moments that citizens' feelings about politics were strongest. The most salient illustration of this effect in 2008 was the acceptance speech of Sarah Palin, McCain's running mate. The Obama campaign claimed to have received 130,000 donations totaling $10 million in the 24 hours following her speech (Pitney, 2008).

The superiority of Obama's fundraising strategy is evident in figures from the Federal Election Commission. The Obama campaign organization and the Democratic Party together received about $1 billion in the 2008 cycle, compared to about $760 million for McCain and the Republicans. As Table 1 shows, of the Obama/Democratic Party total, $659 million came in the form of individual contributions to Obama, and 45% of that figure came in amounts less than $200. McCain raised $199 million in individual contributions to his campaign, with only19% in amounts less than $200. The Obama campaign itself received as much in small donations as McCain's campaign raised in all sizes plus federal funding.

The second advantage of the changed communication context was in support of the field efforts at mobilizing voters, especially in the form of microtargeting of messages. After decades in which televised advertising and efforts to generate favorable televised news coverage dominated presidential campaigns, in 2008, Obama, and to a lesser extent McCain, emphasized a strategy of on-the-ground voter mobilization in addition to television advertising (Kreiss, 2012). This entailed a greater emphasis on canvassing, contacting voters personally, and mobilization efforts. George W. Bush had done the same to some effect, also using digital media to organize house parties and other voter contacts. It is noteworthy that digital media tools were especially important in this function, which was one that had been crucial to campaigning in the pre-broadcast era and that had been somewhat overshadowed by the "air war" for some decades. Digital media are in the U.S. contributing to a return to some of the features of pre-television campaigning, yet amplified and redesigned to exploit new techniques. The MyBO Web site in particular was an integral part of the campaign's efforts to reach supporters, stay in touch with them, and mobilize them on election day, through a combination of digital media and traditional field work. For instance, Obama opened 700 field offices to McCain's 400. Masket (2009) shows a relationship between the number of field offices by state and the improvement in vote share over the campaign of John Kerry four years earlier. This ground-game effort was, Masket observes, likely crucial to flipping Florida, Indiana, and

TABLE 1. Fundraising by Obama and McCain, 2008 Election Season (millions of dollars)

	Obama	McCain
Contributions to candidate		
From individuals	659	199
From federal funds	0	84
From other sources	87	49
Candidate total	746	332
Fraction from individuals < $200	*45%*	*19%*
Contributions to National Party Committee	260	428
Total for candidate and party	1006	761

Source: Federal Election Commission.

North Carolina. By one estimate, Obama contacted 25% of all voters in 2008, compared to 18% by McCain (Silver, 2008), giving him a potentially large tactical advantage. One cannot parse out how much of this total is attributable to the changed communication context, but it is clear that social media were an integral part of an effort that greatly outmatched that of his opponent. Vaccari (2010, p. 331) describes the result aptly as an "equilibrium between supporters' movement-like entrepreneurial activism and the campaign's ability to institutionally monitor and direct it."

Following 2008, the emerging position among scholars was that digital media do not convey an inherent advantage to candidates who use it. Vaccari (2010) argued that the technologies employed by Obama were already a commodity—the communication channel, not the message itself. As Kreiss (2012) observes, there is no inherent technological logic driving information environments. These are the purposive product of political actors. Better than saying, as some observers did, that Obama's campaign was superior because it used social media, one can summarize 2008 by saying that the superior campaign strategy of Obama led him to the successful exploitation of a changed context for communication.

The McCain Lag in Adaptation

When the context for political communication changes, not all campaigns or parties adapt to it with the same speed or sagacity. This is a function of several factors, including cost and expertise, but also changes in assumptions and ritualized practices. Imitation lags innovation at sometimes great length, and the election of 2008 demonstrated this point vividly. It has been widely noted that Obama's opponent in 2008, John McCain, made comparatively weak use of the changed communication environment. His tepid approach to new communication opportunities amounted to a strategic decision not to embrace a changed context for communication but instead to attempt to isolate a few individual technologies for specific tasks: to run a small-scale "online campaign" alongside the main campaign. In an interview with *The New York Times* in July, McCain described himself as not literate with the Internet and as dependent on his wife and aides to get online in order to read newspapers (Nagourney & Cooper, 2008). In a chance meeting I had with McCain on a flight to Phoenix after the 2000 primaries, where he had briefly made a splash, McCain told me that he was pleased to take with him from that campaign a list of some tens of thousands of e-mail addresses; eight years later it was clear that he was still thinking about digital media in terms not much more sophisticated than simply lists of contacts.

His campaign in 2008 did not employ a social media site of its own comparable to the MyBO site, which meant he had a very limited ability to manage volunteers and integrate field operations with online tools and supporters' own personal networks. McCain barely employed Twitter, and according to an analysis in early September by the Project for Excellence in Journalism (2008), McCain was absent in eight other social media platforms where Obama was present, such as Faithbase and AsianAve. That study found that McCain's own Web site did not link to any social media from its home page, and that in YouTube, the McCain campaign posted 260 videos, compared to 1,239 by the Obama campaign.

Like almost every candidate of the Internet age before him, with the exception of Jesse Ventura, Howard Dean, and a few others, the McCain campaign approached the online world as a distinct domain of action rather than as the new context for political communication. A symbol of the McCain campaign's failure to conceptualize the new media environment appropriately was a game called "Pork Invaders" that it offered at its Web site. The crudely-rendered homage to the Space Invaders game from the late 1970s permitted citizens to fire vetoes at flying pigs. As we will see below, his successor in 2012, Mitt Romney, did recognize the changed context and approached technology very similarly to the way Obama had in 2008. John McCain, born in 1936, will go on record as the last major presidential candidate in the U.S. to run for office treating the digital media environment as distinct and separate from the larger context for political communication.

The mismatch in adaptation to digital media is evident in data on popularity of the candidates online. At the end of the campaigns, Obama had about 112,000 Twitter followers to 5,000 for McCain; on Facebook, Obama had about 2 million supporters to McCain's 600,000, and about 115,000 people subscribed to Obama's YouTube channel compared to 28,000 to McCain's (Fraser & Dutta, 2008; Stanford, 2008).

There has been a good deal of discussion about why Obama would enjoy such dramatic superiority in his capacity to engage supporters through digital media in 2008. An important reason was that he had a head start in the form of an array of consultants, digital strategists, and media experts oriented toward the Democratic party and that had been preparing for four years for the 2008 contest. It is important in this regard to recall that Obama in 2008 was far from the first candidate to use digital media in an intensive way. Before him, stretching back a decade and half, was a history of candidates who used digital media in increasingly sophisticated ways, from Bill Clinton's experimental use of e-mail list-servs in 1992 to Al Gore's techniques of customizing the appearance of its Web site as a function of citizens' location and interests in 2000 (Bimber & Davis, 2003).

By far the most important predecessor for Obama was the Howard Dean campaign in 2004, around which a body of "Netroots" activists and digital media experts had coalesced. The Dean campaign was the first presidential campaign in the U.S. to integrate online efforts with traditional campaign functions. Kreiss (2012) characterizes the Obama campaign in 2008 as the direct descendant of the Dean campaign, using many of his approaches and expertise, as well as former staff and consultants. The dot-com boom of the early 2000s had produced a network of "digerati" who were interested in politics and largely oriented toward Democratic party politics, and who were enthusiastic about new tools such as Meetup. The Dean campaign, unlike the other campaigns in both parties in 2004, was willing to embrace these outsiders and their novel technologies. This is likely due in large part to the fact that his campaign was a long-shot against more established candidates. When the Dean campaign failed, it left behind an infrastructure of consultants and experts, such as EchoDitto and Blue State Digital. These were what Kreiss (2012, p. 87) calls a "new generation of political intermediaries." Some of these intermediaries went on to work for the failed Kerry campaign in the general election, but their most important move was to begin planning for 2008. Four years later, during the primaries of 2008, and facing a well-funded establishment candidate in Hillary Clinton, the Obama campaign made the early strategic decision to integrate digital media tools with the whole range of campaign functions. As a result, it embraced this new generation of intermediaries who went to work for Obama and led to his impressive presence online early in the campaign (Kreiss, 2008).

The election of 2008 presents a key question, namely the extent to which Obama's superiority in engaging supporters through digital media was the result of his campaign's better adaptation to the changed communication context or the fact that demographics of his supporters skewed favorably for digital media, regardless of the campaign's strategy. Obama took 66% of voters under age 30, who are more intensive users of social media than older voters, as well as 56% of women, who also use social media more than men (*New York Times*, 2008; Pew, 2012b). What we can say from 2008 is that almost certainly an interaction occurred: both the campaign and its core supporters were more engaged with the new digital media context for communication than in the case of the McCain effort. As we will see below, untangling basic demographic effects from campaign effects in digital media would become much clearer four years later.

DIGITAL MEDIA IN THE 2012 CAMPAIGNS

In 2012, the Romney campaign closed the innovation gap associated with social media that had opened in the previous cycle. Where the McCain campaign had maintained a mass-media strategy that had little room for digital media, the Romney campaign adopted the Obama approach

of integrating digital media tools into the core of the campaign. Romney showed no less vigor or aggressiveness about social media tools than the Obama campaign. Unlike McCain, Romney fielded an effective and sophisticated social media site, MyMitt, with volunteer-management and phone-from-home tools. It used Square, Eventbright, and especially Facebook, and it advertised heavily on YouTube and Hulu. The campaign integrated MyMitt with other tools including Facebook, and it made a key goal of online prospecting for people using Facebook to create an account with MyMitt (Lardinois, 2012). Also like the Obama campaign, Romney employed Twitter in a variety of ways, such as live-tweeting during the presidential debates in an effort to spin perceptions in real time. Romney's use of digital media in 2012 constitutes verification of Vaccari's (2010) observation from two years earlier that the tools Obama employed in 2008 had become commoditized and a routine part of the context in which elections campaigns are conducted.

The Obama campaign's portfolio of public digital media tools in 2012 was itself quite similar to that of four years earlier and not much different from what Romney employed. The 2008 MyBO social media site evolved into the new 2012 Dashboard site, which offered similar functions aimed at volunteership, mobilization, and participation. Dashboard was not a replacement for the traditional Web site, which is where the campaign posted policy statements, video links, and other standard tools, as well as a prominent link to Dashboard. In 2008, the campaign had experimented with a variety of social media, including Eventful, Eons, BlackPlanet, Faithbase, and Glee (Stromer-Galley, 2013). Though it also had a small presence in a variety of digital media in 2012, including the new Instagram, the campaign appeared to focus more on select tools. Campaign manager Jim Messina said that the campaign knew from the outset that Facebook had more users than in 2008, that smartphones were more important than they had been, and that Twitter was no longer an experiment (Cramer, 2012). Among the notable smaller innovations was a technique for citizens to make donations via text message, in which the campaign stored credit card numbers and requested permission by text message to charge for small donations.

Despite similarities in the campaigns' use of such tools, data on Obama and Romney supporters' use of these tools show another mismatch, similar to that of 2008. At the time of the election in November, Obama had 33 million Facebook supporters compared to 12 million for Romney.[2] On Twitter, the mismatch was much greater: Obama had 22 million followers and Romney about 1.7 million.[3] Some of this mismatch is due to incumbency, since Obama had accumulated followers and supporters while president. However a considerable amount of the gap appears to be a campaign effect. In September of 2011, Obama had 10 million followers on Twitter (Bennett, 2011), and so gained 12 million new followers during the primary and general election campaign seasons, while Romney acquired less than one-fifth of that number. It is interesting to compare these figures to the 2012 French election. As Vaccari (2014) observes in this issue, François Hollande had roughly one Facebook friend for every hundred votes in the first round election; with a vote total of about 65.9 million in 2012, Obama had one Facebook friend for every two votes.

The mismatch in citizen involvement through social media between the campaigns was therefore not due primarily to differences in the sophistication of the tools provided by each side or the campaigns' strategy toward them, as had been the case in 2008. The differences almost surely reflect the differing character of Romney and Obama supporters. Pew data show that among Internet users, more Democrats and Independents (18%) use Twitter than Republicans (12%). Romney's core supporters were white men, 59% of whom voted for him; voters over 65 years of age, 56% of whom supported him; and married voters, 56% of whom supported him (*New York Times*, 2012b). This profile, especially for older voters, skews Romney supporters toward traditional news media and away from digital media. Data from Pew (2012a), for example, show that 65% of people over 65 report having watched TV news "yesterday," compared with 34% of people under 30 years of age. Among Internet users aged 65 and older, about 4% use Twitter,

compared with 32% of people under 30 (Pew, 2012b).

Key categories of Obama's core supporters skew toward use of digital media. This includes voters under age 30, 60% of whom voted for Obama; Asian Americans, 73% of whom supported him; Latinos, 71% of whom voted for Obama; African Americans, 93% of whom supported him; and gays and lesbians, 76% of whom supported Obama (*New York Times*, 2012b). Some customary notions about demographic "digital divides" are now outdated: Among Internet users, more women (75%) use social networking sites than men (63%). More African American Internet users (22%) than Whites (14%) use Twitter (Pew, 2012b). Among all women, there is no digital divide by race or ethnicity in general Internet use, and when it comes to use of smartphones, white women are only about half as likely (33%) to be users than women who are African American, Latina, or Asian American (60–65%) according to data from Nielsen (2011). The changed context for communication is illustrated by the comment of Obama staffer Teddy Goff, who observed that among 18–29 year old voters whom the campaign wanted to target, half can not be reached by telephone, but 85% were friends on Facebook with someone who was in turn a friend of Obama (Judd, 2012). The campaign's effort to reach people through friends represents an adaptation of the two-step flow of political communication that is familiar in traditional theories of communication.

It is likely that a generational bias will exist for a few election cycles. So long as age and race gaps exist in the appeal of Republican and Democratic candidates, and so long as complementary demographic differences exist in use of digital media, there will likely remain a gap as well in how enthusiastically their bases engage with candidates' digital media tools.

OBAMA's DIGITAL MEDIA STRATEGY IN 2012: FINANCE AND THE GROUND GAME, AGAIN

With a similar portfolio of tools in 2012 to four years earlier, the Obama campaign also largely repeated its 2008 emphasis on exploiting the new context for communication toward two main purposes—fundraising and support of field efforts. With respect to fundraising, the campaign again passed up federal campaign funds in order to raise and spend an unrestricted amount of money, as did Romney's organization. The Obama campaign was extremely aggressive about making repeated requests for small donations, which it distributed by e-mail, text messages, and social media, including the Dashboard site.

Large donations, which were a higher priority for the Romney campaign, are labor intensive, requiring effort and time by the candidate or his surrogates in dinners, fundraising events, or in one-on-one meetings. A donor who makes a large gift may be unwilling to give again soon, or at all, and may have reached legal donation limits. By contrast, donors who give a small amount can often be enticed to do so again, and the marginal cost to a campaign is nearly zero for making repeated requests through digital media.

Federal Election Commission data show that Obama's small-donor strategy was at least as successful in 2012 as it had been in 2008. As Table 2 shows, about 67% of the $541 million in individual donations to Obama came in amounts less than $200, for a total of $362 million in small donations. By contrast, the Romney campaign raised a total of $300 million in individual donations of all sizes, only 26% of which

TABLE 2. Fundraising by Obama and Romney, 2012 Election Season (millions of dollars)

	Obama	Romney
Contributions to candidate		
From individuals	541	300
From federal funds	0	0
From other sources	176	148
Candidate total	717	448
Fraction from individuals < $200	*67%*	*26%*
Contributions to National Party Committee	267	351
Contributions to Super-PAC	78	153
Total for candidate and party	1062	952

Source: Federal Election Commission. The Super-PACs are: Priorities USA (Obama) and Restore Our Future (Romney).

came in small amounts. Donations totaling more than $5,000 are prohibited to the campaign organizations and so are directed to the national party committees. Romney's greater success with large donors is reflected in the $351 million donated to the Republican Party for his use, compared to $267 million with the Democratic Party for Obama. Consistent with the fears of many Democrats at the beginning of the campaigns, donations from independent-expenditure organizations (super-PACs) for Romney were roughly double those for Obama, $153 million to $78 million. Yet in the end, Romney's advantage in large donations to the Republican Party and super-PAC donations was more than offset by Obama's superiority in individual donations collected largely through digital media. Campaign finance had a populist character in 2012, which is about the only positive observation one can make about it.

The other component of Obama's digital media strategy was again using social media tools in support of its state-by-state effort to mobilize supporters. Field organization was based on neighborhood-level teams. In Ohio, the campaign ran 1,000 teams to cover the 8,000 precincts (Alter, 2013). The Dashboard site was the gateway for citizens into this effort. At Dashboard, all citizens were placed in a neighborhood "team," allowing people to see photographs and messages of other Obama supporters in their neighborhood. Teams had leaders, such that every person who created an account at Dashboard was instantly part of a proto-volunteer group in his or her own neighborhood with a local leader present. Dashboard also provided a "Groups" function, in which people could join affinity groups associated with policy areas, race and ethnicity, profession, and other categories, regardless of location. There was a phone-banking tool, as well as a fundraising tool that allowed people to set a fundraising goal for themselves. Dashboard kept track of how much money each volunteer raised by "inspiring your friends and family to pitch in." A "numbers" button provided citizens with an overview of their own activity in number of one-on-one meetings held, number of call attempts made, and number of phone conversations. Supporters using Dashboard could therefore serve as organizers on their own initiative or let themselves be drawn into efforts organized by others on the basis of either location or policy interest.

The campaign exploited Facebook information about supporters as well in its effort at organizing volunteers. The campaign sent supporters e-mail messages containing names and profile photographs of their friends in swing states, asking supporters to contact those friends about voting (Beckett, 2012). It is not clear at this stage how effective this tactic was, but it is consistent with the campaign's larger and clearly successful strategy of attempting to mobilize supporters' personal networks on behalf of the campaign.

In placing social media in perspective, it is important to keep in sight the role of television advertising. To the surprise of many observers at the outset of the campaigns, the Obama campaign and Democratic Party outspent Romney and the Republican Party on television advertising. As of October 21, about 520,000 pro-Obama ads had aired, compared to 458,000 pro-Romney ads (Peters, Confessore, & Cohen, 2012). In Spanish language advertising, which grew eight-fold over 2008, Obama outspent Romney about two to one (Kantar Media, 2012). The Obama advertising messages were effective at knocking Romney off balance for much of the campaign. An initial approach of emphasizing Romney inconsistencies and "flip-flopping" eventually expanded to attacks on his business experience and wealth, turning potential advantages in a time of economic stress and unemployment into a liability.

THE NEW TECHNICAL FRONTIER: DATA ANALYTICS AND PERSONALIZED COMMUNICATION

While the public face of digital media in the 2012 U.S. campaign is best characterized in terms of the commodification of social media tools and the consolidation of the changed context for communication, a new layer of innovation took place behind the scenes, in the form of a dramatic technological shift that greatly advantaged the Obama campaign. This shift involved the set of practices variously

known at this time by terms such as "big data," "data analytics," and "behavioral modeling" in support of an unprecedented degree of microtargeting of campaign messages. The Obama campaign invested much more heavily and successfully in acquiring personal data of many kinds about citizens, using this data to model statistically the likely behavior of citizens, and to use the results of these models for crafting messages and making tactical decisions about how to allocate resources.

Microtargeting of campaign messages was hardly new in the U.S. in 2012. It had been practiced to varying degrees by both parties in previous elections, especially 2010, 2008, and 2004 (Issenberg, 2012a). In 2008, for example, the Obama campaign had used survey data to assign every voter a probability of voting and a probability of supporting Obama. Using continually updated data from call centers, the campaign kept its models up to date and adjusted advertising and field communication accordingly (Issenberg, 2013). The practices of 2012, however, represented a leap beyond previous "micro" messaging toward the modeling of multiple behaviors of citizens using dozens of predictor variables at a new scale (Kenski, Hardy, & Jamieson, 2010). Data analytics went far beyond classifying people into demographic subgroups such as "soccer moms" or "NASCAR dads." It permitted modeling why individual soccer moms and NASCAR dads behave as they do. As Jonathan Alter writes in his account of the campaign, "After a quarter-century of viewing voters as gross ratings points, target demographics, or plain old constituency groups, the best minds in politics were trying again to see them as ordinary people with their own specific interactions with the political process" (Alter, 2013, p. 99).

David Axelrod, senior strategist for Obama, and who had served as chief strategist for Obama in 2008 as well as advisor to Bill Clinton, reported in an interview published in August, 2012 that the microtargeting and data mining undertaken in 2012 made what happened in 2008 look "prehistoric" (Johnson, 2012). The 2012 Obama data analytics team numbered about 50, making it five times the size of the 2008 analytics effort, with another 250 people working on other functions such as creating messages for digital media distribution and supporting the technologies themselves (Alter, 2013; Engaged Research, 2013; Scherer, 2012). Jim Messina, Obama's campaign manager, reported publicly after the campaign that he had spent $100 million on technology, though it is not clear what portion of this sum covered costs specifically due to data analytics and what fraction went to the public digital media effort (Cramer, 2012).

In addition to customary public voting records and basic demographics, the Obama campaign invested in the kind of commercial databases now used regularly by corporations for targeting commercial advertising. Such databases contain a range of information about individuals, from professional licenses and charitable donations to music preferences, car brands, and magazine subscriptions. It is unclear at this point how much the campaign employed Web browsing data, but Obama officials have said that they made less use of both commercial databases and of Web cookies than journalists had been suggesting in their reporting throughout the campaign (Beckett, 2012).

Both Obama and Romney acquired data from people's social networks, which they obtained by steering people who sought to sign up for the campaigns' social media sites to do so by clicking on Facebook and Twitter links. These links then provided the campaigns access to citizens' social media contacts and other publicly available information. Another source of data for the Obama campaign was reports captured by canvassers on the ground. Volunteers and staff knocking on doors were instructed to fill out "walk sheets" and report information about specific voters back to the campaign. Instructions to canvassers at the Obama Web site said: "Reporting good data from your canvassing is just as important as actually talking to the voters. Understanding what voters think about important issues helps us ensure we are running the most effective organization possible" (OFA, 2012).

Another important part of the Obama data collection effort involved internal phone polling on a large scale, with sample sizes of as many as 4,000 to 9,000 *per night* in swing states, vastly

exceeding the sample size and rate of traditional phone polling (Alter, 2013; Scherer, 2012). The campaign was also reported to have employed panel techniques, calling respondents back in order to track changes in support within states, such that the campaign could model which variables were associated with changing opinion within a state in real time (Parsons & Hennessey, 2012).

The details of Obama's data analytics formulas remain largely secret. Obama spokesman Ben LaBolt said to *Time* magazine in a story embargoed until after the election that what the data analysts were doing were the campaign's "nuclear codes" (Scherer, 2012). Throughout the campaign season, a number of journalists evinced fascination with what the campaign was doing, reporting various anecdotes and teasing tidbits about the effort. *Wired* ran a widely tweeted story about the campaign under the title "Wrath of the Math: Obama Wins Nerdiest Election Ever" (Ackerman, 2012). On the same theme, the *Atlantic Monthly* published an article a week after the election entitled "When the Nerds Go Marching In" (Madrigal, 2012).

The Obama campaign employed its analysis of data for several tactical purposes, including fundraising and the targeting of campaign advertising and candidate appearances. For example, *Time* reported that a set of celebrity dinners organized by the campaign emerged from data mining practices that had identified citizens with an affinity for both contests and celebrity (Scherer, 2012). The campaign used this information to devise a fundraising contest in which donors were entered in a drawing for dinner with a celebrity. The celebrities themselves, including George Clooney and Sarah Jessica Parker, were tailored to specific subgroups of the contests-and-celebrities supporters. In the area of advertising, the Obama campaign made an unusual set of advertising buys in 2012, reportedly due to its data analytic efforts identifying the television viewing habits of key sets of persuadable voters in swing states. For instance, Obama advertised on TV Land, the cable network that re-runs old programs. Jim Margolis, a senior advertising strategist for the campaign, reported in an interview with *The New York Times* that the campaign had learned that the TV Land audience includes a group of voters who are not strongly committed ideologically and who were likely to decide late whom to support, and so the campaign targeted them with advertising (Rutenberg, 2012). Similarly, Obama made a virtual appearance on Reddit, the social news site, because the campaign had data showing that this was a good mechanism for reaching targeted voters in some swing states (Scherer, 2012).

The most important tactical use of data analytics by the Obama campaign appears to have been in support of the effort in swing states to persuade undecided voters and to turn out supporters who were at risk of staying home. In the "ground game," sending a volunteer to contact a voter who firmly supports one's opponent is counterproductive, while expending resources to contact supporters who are reliable voters is a waste of effort. Generally speaking, then, the goal of the ground game is to find persuadable voters and reach them with a tailored message that is likely to appeal to them, as well as to reach inconsistent supporters with techniques likely to increase their chance of making it to the polls. Rather than going down the street in a pro-Obama precinct knocking on one door after another, Obama canvassers could knock on doors selectively from a list of addresses where targeted citizens lived.

An example of household-specific message targeting in 2012 comes from TargetPoint Consulting, who worked for Romney. A TargetPoint representative observed in an interview with *The New York Times* that it can be useful to identify households in which one spouse is a supporter and the other not. Targeting a message to such households about an issue on which spouses disagree is not likely to be productive. But targeting a message about an issue that is favorable to your candidate and on which spouses are in agreement may help the favorable spouse convince the other. Scholars will recognize this as a case of issue priming in political communication, but personalized to *the level of the household* (Harwood, 2012).

The core of the Obama data analytics effort was a set of five predictive models for individual voters. A persuasion model indicated the likelihood that not-strongly partisan voters could

be persuaded toward Obama on the basis of messages about specific issues; another model predicted support for Obama; the other three models predicted likelihood of donating, volunteering, and voting (Beckett, 2012; Greenwald, 2013). Campaign staff used these models to make decisions about whom to contact and what to say to them.

By the end of the campaign, it became clear that the Obama campaign had predicted with enviable accuracy the behavior of voters in swing states and reached a sufficient number of them with the right message to prevail in a contest in which Obama received many fewer votes nationwide than he had in 2008. One probable indication of the effect of this kind of targeting is in the behavior of younger voters. Obama's share of voters of under 30 years old fell from 65% nationwide in 2008 to 60% in 2012. However, he increased his share of young voters over 2008 in the key states of Ohio, Florida, Virginia, Nevada, and Arizona, taking 61–68% in these places (*New York Times*, 2012b).

The Romney campaign's data analytics effort was also considerable, apparently surpassing what had been done by any other Democratic or Republican campaign prior to 2012, despite falling well behind what was undertaken concurrently by Obama. The Romney campaign relied more heavily on outside analytics firms than did Obama, who centralized his data analytic efforts inside the campaign (Duhigg, 2012; Murphy, 2012; Stromer-Galley, 2013). Some reports also suggest that Romney's effort was more heavily focused on persuasion of undecided voters than on turnout of supporters (Duhigg, 2012; Issenberg, 2012). A lot was made in the news media immediately after the election of the failure of the Romney campaign's "ORCA" project on election day (e.g., Ekdahl, 2012; Kranish, 2012). The system, which was designed to provide some 30,000 volunteers in key locations information about turnout in real-time, in order to aid turnout efforts, crashed on election day.

Though the details of both campaigns' use of data remain proprietary, there are plentiful indications that the Obama effort was greatly more sophisticated than Romney's. In July, *Slate* (Issenberg, 2012b) reported that the Romney campaign was attempting to reverse-engineer what Obama was doing—a practice typically associated with following rather than leading in technological innovation. After the election, Brent McGoldrick, a member of Romney's data science group, acknowledged that his campaign was unable to interpret some of Obama's ad buys or to understand how Obama was targeting his messages (Issenberg, 2013). In a post-election meeting of the International Association of Political Consultants, Brian Jones, senior communications advisor to the Romney campaign, conceded that the Obama data operation was more sophisticated than their own had been (Cramer, 2012).

Data analytics appear to be the future of close election contests in the U.S., and in some ways it is surprising that these practices did not reach the electoral arena sooner, given that businesses have been using "big data" for some years. Unlike the situation in a number of European countries, U.S. privacy laws do not prevent campaigns from profiling individual citizens. Like strategic incorporation of social media in 2008, data analytics in support of field tactics were the big innovation of 2012, introduced by one campaign to its own advantage. It is likely that by the 2016 contest, candidates for both major parties will engage in a more evenly matched contest over the use of data. Just how many votes can be mobilized with data-intensive advertising and canvassing is not clear, but there are few reasons to think the number is objectively large. In 2012, data analytics did not increase Obama's turnout overall; it simply helped him prevail in tight contests in a few states.

On the whole, nationwide popular vote totals for Democrats and Republicans running for president are not any closer in recent decades than in previous periods. Despite close contests in 2012, 2004, and 2000, in which popular totals were within about three points of one another, differences were greater than five points in every other election since Reagan was first elected in 1980. Solid victories such as those are not likely to be affected in the future by candidates' ability to exploit data analytics. However, since 1980, the number of contested states in presidential elections has dwindled. In 1976, 20 states were won by a margin of 5% or

less, including California by less than 2% and New York by a little more than 4% (American Presidency Project, 2012). By 2004, this number had dropped to 11 states, and by 2008 to just seven. In 2012, the heavily contested swing states going into election day again numbered seven: Florida, Ohio, Virginia, New Hampshire, Wisconsin, Iowa, and Colorado. The fact that presidential election contests are now fought over relatively small margins in a handful of states sets up conditions for continued importance of fine-grained tactical efforts to persuade and mobilize using personalized campaign communication.

THE FUTURE OF DIGITAL MEDIA IN U.S. PRESIDENTIAL CAMPAIGNS

A general principle of organizational adaptation in campaigns within any one nation is that competition for advantage is sufficiently strong to motivate campaign organizations to adopt strategies and tactics innovated by previous campaigns when these demonstrably convey an advantage. This means that, historically, there has been no long-term advantage in campaign effectiveness enjoyed by candidates of one party in the U.S. At the presidential level, where the resources dedicated to campaigning are enormous, innovations in any one electoral cycle are typically matched soon in subsequent cycles, as happened with radio, television, and direct mail. This same leveling has happened with deployment of social media tools by presidential campaigns between the two major parties, and it will likely happen with data analytics soon as well. What remains to be seen is whether persistent differences in strategy and approach persist between the major parties in a common media environment. As Vaccari (2014) shows in this journal issue, after a communication channel becomes ubiquitous, as in the case of e-mail across countries now, there may remain differences in how parties choose to communicate with the public through those channels.

The lopsided use of social media in 2008 reflected slower adaptation to the changing media environment by McCain's organization. This resonates with the finding of Marcinowski et al. (2014) in this issue that candidates' own experience with Internet use is a strong predictor of digital media use by state-level campaigns in Germany; John McCain confessed to relative ignorance about the Internet well into the campaign season. It is also consistent with the finding of Hansen and Kosiara-Pederson (2014) in Denmark that individual candidate characteristics predict how extensively they use digital media in their campaigns: younger candidates and incumbents used technology more extensively. In the U.S., however, it is doubtful that by the 2012 presidential election, any difference between the candidates' personal use of digital media would have played out in differences in use of tools in the campaigns. Digital media tools were too deeply integrated into professional political practice.

The lopsided use of data analytics in 2012 reflects what might be a deeper difference in the orientation of the two campaigns toward matters of evidence and authority. The arrival of data analytics on the political scene has placed social science in a contest with the intuition of traditional political experts. Expert authority in election campaigns has long resided among campaign strategists and advisers who are experienced in the mass media environment. This class of political experts has made use of polling data, focus groups, and other sources of evidence, but its authority has rested chiefly in intuition, political sense, and personal judgment. Advisers such as Roger Ailes, Dick Morris, Lee Atwater, Karl Rove, James Carville, and George Stephanopoulos were powerful campaign elites because of their judgment and sense of campaign dynamics, not because they had superior command of evidence. By contrast, the 2012 Obama campaign recruited heavily for statistical skills and technology expertise, treating the campaign as a start-up business in which evidence drove decisions (Alter, 2013; Stromer-Galley, 2013).

The data analytics on display in the Obama campaign organization show that it is now possible to conduct empirical tests of some of the hunches and assumptions that the old class of experts and strategists bring to the table. It is also clear that large-scale data permit formulating tactics at a level of granularity far

beyond what the even the most advanced traditional political advisers experts are capable of. When Jim Messina took the job as campaign manager for Obama in 2012, he said: "We are going to measure every single thing in this campaign," which included responses to e-mail, ads, canvassing pitches, and online communication (Scherer, 2012). For example, by one report, the campaign conducted 240 A/B tests of variants of its online donation pages, in order to refine pitches and presentation of material. It learned early on through its measurement that the intuition of campaign staff was quite poor at predicting what the data said about how the public would respond to messages (Engaged Research, 2013). Another reflection of this orientation toward evidence and measurement is the fact that the Obama campaign accepted of advice from a group of professors of political science and psychology—known informally as the Consortium of Behavioral Scientists (COBS)—who translated academic research for the campaign on such topics as dealing with negative ads from Romney and cognitive mechanisms to increase the likelihood that citizens committing to vote would carry through on their promise (Carey, 2012). Though it is doubtful COBS played an important role in the campaign substantively, it stands as a symbol of the campaign's orientation toward research and evidence.

This embrace of social science was also a point of considerable departure from the Republican campaign approach, which reflected skepticism of the academy in general and a continued preference for the judgment of those experts who pass a test of ideological compatibility, even in the face of clear facts. Up to election day, the Romney campaign was expecting a big win—not a close contest, much less a loss (Alter, 2013). This predilection for self-supporting belief over evidence was illustrated by the infamous episode of Karl Rove refusing on live television to believe the evidence that Obama had won Ohio. Following the election, Bobby Jindahl, Republican governor of Louisiana and a primary contender against Romney, said that Republicans had become "the stupid party" (Alter, 2013, 369).

In the Republican National Committee's (RNC) official post-election report, the party wrote of the "immediate need for the RNC and Republicans to foster what has been referred to as an 'environment of intellectual curiosity' and a 'culture of data and learning'" (Republican National Committee, 2013, p. 24). Continuing this remarkably candid self-assessment, the party wrote:

> A commitment to greater technology and digital resources in all areas referenced above is critical. These are not stand-alone functions but tools that must be used to improve the quality and effectiveness of our voter contact. Much has been written about the Democrats' advantage in this area. The need to integrate these functions across all levels of both the national Party structure and national campaigns is clear. (Republican National Committee, 2013, p. 25)

The extent to which future Republican efforts will reflect the insights of the mainstream RNC position in 2013 remains to seen. For Republicans associated with the Tea Party, the approach to campaigns was not merely a tactical preference, but was a reflection of more durable and deep-seated beliefs ranging as widely as the rejection of evolution and the refusal to accept the consensus among scientists about global warming. This is an orientation toward ideological compatibility as a primary criterion for acceptance of truth-claims. Presumably incentives for winning elections will be sufficient that in 2016 and beyond Republican campaign organizations will indeed open themselves further to social science, and data analytics will grow to be as well commoditized as a campaign tool as social media. The adjustment may be rockier, however, than in the case of Democratic campaigns.

To a large degree, the campaign organizations of the mid-1960s to early 2000s in the U.S. represent an organizational adaptation to the mass media environment, with its candidate-centric strategies of communication. The innovations introduced by the Obama organizations

in 2008 and 2012 represent adaptation to the digital media environment in the context of the unusual electoral arrangements of the U.S., in which communication is both candidate-centric and citizen-centric at the same time. Campaign organizations can now facilitate citizens' becoming engaged on their own terms and in ways that activate their personal networks; at the same time, they can direct highly personalized political communication to individuals on the basis of extraordinarily fine-grained models of their behavior.

One of the interesting unanswered questions at this point is how quickly candidates running in House and Senate elections, as well as state and local races, will adopt the techniques of the 2008 and 2012 presidential campaigns. While the commodification of these tools is advancing rapidly at the national level, their cost and novelty, and the relatively limited supply of experts at this point, have made them less accessible in statewide and local races. It is likely that the price of data analytics will fall as the markets for commercial and political information develop. It is also clear that the supply of data analysts and information scientists will increase, due to demand in commercial sectors as well as in politics. This should make more tools available in state and local races in the medium term. As of this writing, the Democratic Senatorial Campaign Committee is preparing a $60 million project for data-intensive, ground-game campaigning in an effort to maintain its majority in the 2014 elections (Parker, 2014). The Republican Party is mounting a concerted effort to catch up with Democratic superiority in analytics, but some observers doubt those effort will have paid off by the midterm elections (Debenedetti, 2014; Johnson, 2014).

The campaign innovations of 2008 and 2012 hardly constitute unalloyed progress in democratic practice. They exploited the increasing lack of privacy in the U.S. The Obama campaign's remarkably precise information about individual voters in 2012 foreshadowed in a way the spying controversies involving the National Security Agency (NSA) under the Obama administration that would be revealed not so long after the election by whistleblower Edward Snowden. In the financial arena, the innovations of 2008 and 2012 are at best a mixed bag. A populist interpretation would emphasize the increased importance of individual citizens as donors, after decades of increasing influence for corporations and the wealthy. Yet the larger story is that these campaigns further raised the financial stakes in a presidential campaign finance system that is fundamentally flawed. From a historical perspective, Obama's use of digital media to invite individuals to donate on a new scale can be seen as the latest twist in the story of the ties between private donations and electoral success in the U.S. The federal funding system for presidential general elections is weak and inadequate, but it was at least a modest nod in the direction of a level playing field for major party candidates. Following Obama's elections, that funding system is essentially defunct.

Another unattractive feature of the campaigns is the further narrowing of campaign communication in the context of political polarization. In 2008, social media arguably broadened the political conversation in the U.S. by drawing in citizens not otherwise likely to express themselves politically. In 2012, the emphasis on personalized political communication contributed to the narrowing and targeting of political communication in which enormous resources are spent on small segments of the population in strategically important places.

These elections illustrate the fact that digital media tools do not lead in a single political direction. Optimists looking at 2008 can make a case that the tools provided new opportunities for citizens to enter the public arena; the increased turnout that year casts the role of digital media in a favorable light. But 2012 does the opposite: Diminished turnout and fewer indicators of citizen involvement and excitement show how digital media can be used in narrow ways as well.

It is worth remembering that, despite the hopes of reformers, political elites do not employ new communication channels with the aim of citizen empowerment, greater democratic deliberation, or any other normative goals that we might wish on them. As a number of the authors in this issue point out, such aspirations have long been associated with digital media by scholars. The goal of the candidate

investment in media tools is to win elections. In the 2012 U.S. presidential election, that meant personalized campaign communication. In ways that are likely to be durable, U.S. campaign organizations are adapting to changed circumstances in which the old dictum of Speaker Tip O'Neil about all politics being local is rapidly being supplanted by new ways in which all politics in the U.S. is personal.

NOTES

1. Recognizing influence in the direction from technological innovation to innovation in political practice does not reject the importance of influence in the other direction as well. Digital media are no less the product of politics than other technologies.

2. Source is Facebook, observed by the author on November 5, 2012.

3. Source is Twitter, observed by the author on November 5, 2012. It is important to interpret counts of Twitter followers with a grain of salt, because they may be grossly inflated. A market exists for the bulk sale of Twitter followers. Brokers exist who acquire and sell Twitter followers. As of this writing, InterTwitter.com sells 1,000 followers for $14, and 100,000 followers for $487,000.

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