David Karpf*

The Internet and American Political Campaigns

Abstract: This article provides an overview of major research findings regarding the Internet and American political campaigns. This is still a nascent subfield, but the research community has come to general agreement on five key points: (1) at the mass behavioral level, the Internet has not changed fundamental participatory inequalities; (2) we have seen an increase in small-donor activity, and these donations tend to flow toward polarizing candidates; (3) for political campaign operations, "mundane mobilization tools" carry the largest impacts; (4) with political campaigns, the new focus on data analytics and the "culture of testing" is substantially changing resource expenditures and work routines; and (5) there is currently a clear partisan divide between how Democrats and Republicans employ digital technology for campaigning. The article also discusses the methodological challenges that separate Internet-related research from many of the more established fields of campaign finance-related research. It concludes by posing a set of research questions for the 2014 and 2016 election cycles which will likely prove fruitful.

*Corresponding author: David Karpf, George Washington University, School of Media and Public Affairs, Washington, DC, USA, e-mail: dkarpf@gwu.edu

Introduction

Intuitively, many presume that the Internet *must* be having some substantial impact on campaign finance. If television gave rise to the candidate-centered campaign (Graber 2010), it stands to reason that the Internet must likewise alter some central dynamics of American electoral campaigning. Identifying, measuring, and assessing those changing dynamics is a daunting challenge, one that the research community has only begun to come to grips with. Compared to the other subfields discussed in this issue, the research agenda on Internet politics is still in a fledging, pre-paradigmatic stage.

The trends we have identified include a mix of complex, sometimes contradictory interactions: The new media environment has unleashed a torrent of small-donor fundraising (Malbin 2013). That funding appears to be more polarized than the large donors of yesteryear (Karpf 2010; Bonica 2011; Sides and Farrell 2011; but see Malbin's essay in this symposium for a contrary perspective). It also is largely washed out by the post-*Citizens United* flood of large-donor money. And it still is

drawn from the wealthier segments of American society (Schlozman, Verba, and Brady 2010, 2012). The Internet is also tied to the rise of rigorous experimentation and testing practices, a form of "computational management" that puts more authority and precision in the hands of campaign professionals (Issenberg 2012; Kreiss 2012).

The promulgation of new data is used for more efficient campaigning, but also raises concerns of "political redlining" (Howard 2006). At present, new media in campaigns appears to advantage the Democratic Party, though it is debatable how pervasive this advantage will prove to be (Kerbel 2009; Karpf 2012a). All of this is occurring against the backdrop of a changing mass media environment (Prior 2007; Jamieson and Cappella 2010; Stroud 2011; Williams and Delli Carpini 2012), raising some deep normative questions regarding the comparative benefits of deliberation versus participation (Mutz 2006; Sunstein 2007; Abramowitz 2010; Wojcieszak 2011).

Alongside these various threads of emerging research, the Internet also poses some uniquely steep methodological hurdles as a medium that is in continuous, rapid, disruptive change. The Internet of 2016 will feature important dissimilarities from the Internet of 2006. It will be barely recognizable when compared to the Internet of 1996. Standard methodological practices such as pooling survey data across election years become fundamentally untrustworthy when *ceteris paribus* assumptions are violated in this manner (Karpf 2012b). The nascent research community has thus faced twin challenges of re-envisioning our theories while we reevaluate our most robust methods. The field of research surrounding the Internet and campaigns features more questions than answers.

This paper offers a brief literature review of the dominant knowns and unknowns within the research community. It also discusses the methodological challenges that separate this subfield from many of the more established fields of research that answer questions related to campaign finance. It concludes with an agenda of fruitful research questions that analysts can, should, and hopefully will answer as we move toward the 2014 and 2016 elections.

Key Research Findings

Researchers have generally found small, positive correlations between Internet use and various forms of political participation. Boulianne (2009) conducted a meta-analysis and found evidence across several studies that political technology use has a positive effect on traditional, offline forms of participation. However, the most recent research by Bimber and Copeland (2013) raises strong questions about this line of analysis. Bimber and Copeland challenge the implicit assumption that findings from one cross-sectional survey can be generalized to later elec-

tion cycles. Drawing upon American National Election Studies (ANES) data from 1996, 1998, 2000, 2004, and 2008, they find no robust relationships over time. Simply put, because the Internet itself continues to evolve, "there should be no stable relationship between use of the Internet for political information and political participation over time in national samples" (Bimber and Copeland, p. 9).

Bimber and Copeland's finding should serve as a general cautionary note for all of the trends discussed below: the Internet is a cluster of technologies, many of them still in a state of development. Those technologies have differential impacts depending on a host of other variables, many of which are temporally fixed. Nonetheless, five overarching themes within the emerging literature help to set the agenda for future analysis.

General Stability at the Behavioral Level

Many journalists and practitioners look to the Internet with hopes that it will spur an imagined (re)birth of egalitarian democracy. Between blogs, YouTube videos, social network sites, and petition warehouses like Change.org, one can find ample anecdotes supporting the belief that everyday citizens are taking charge of the political agenda like never before. The research literature paints a far more muted picture. Schlozman, Verba, and Brady (2010, 2012) argue that Internet tools have done little to undermine the participatory inequalities that have long dominated American politics. The wealthy, the white, and the well-educated (Rosenstone and Hansen 1993) are still far more likely to engage online than other segments of the American public. In fact, Hindman (2009) finds that the top political bloggers are more likely to hold advanced graduate degrees than Op-Ed columnists in major newspapers. Heavily skewed online traffic patterns approximate power law distributions, creating a digital space in which anyone can speak, but only a small elite can be widely heard.

These behavioral findings are tied to a deeper theoretical proposition: the lowered transaction costs found on the Internet *reveal, rather than replace,* the underlying demand curve for citizen political participation. Elsewhere termed the "Field of Dreams Fallacy" (Karpf 2011) this theory suggests that novel platforms for citizen participation will fail where there is no nascent online community demanding them. E-government initiatives, diffuse centrist political "movements," and national calls for online deliberation are routinely foiled not by resistant political elites, but by an underlying lack of participatory demand on the part of a mostly indifferent citizenry. In high-profile cases such as the 2012 collapse of online third party Americans Elect, well-financed attempts to

fundamentally rethink electoral politics have been scuttled by the simple lack of public interest or demand (Nyhan 2012).

Markus Prior's research (2007) on citizen media preferences in a high-choice environment has important implications for students of online politics. Prior demonstrates that the move from a low-choice environment (network television) to a high-choice environment (cable television) has major unintended impacts on political knowledge and participatory patterns. In the older, low choice environment, citizens who did not thirst for political news nonetheless picked up some information through incidental exposure on the 6 o'clock news. This placed them on similar informational footing with their higher-interest peers, who had minimal opportunity to indulge their appetite for detailed political news.

The rise of cable television allows citizens with fixed underlying preferences to better act upon those preferences – "news junkies" can watch CNN, Fox News, and MSNBC while the politically disinterested can instead tune in to ESPN or Hollywood gossip. Prior argues that the further increase in media choices offered by the Internet should expand these informational inequalities. And since preferences for political news are likely shaped out of class, race, and educational experiences, it should then be unsurprising that Schlozman, Verba, and Brady have found the participatory inequalities of yesteryear holding true online.

Polarized Bundling Among Small-Donor Communities

If hopeful observers are left disappointed by the political disinterest of the average American news consumer, the area of small-donor fundraising proves more promising. The Campaign Finance Institute recently found that the 2012 Obama Campaign raised $216 million from donors who gave less than $200 cumulatively (28% of total funds), and the Romney campaign raised $57 million (12%) from small donors (Malbin 2013). The ActBlue.com online bundling system for small donor communities has facilitated over $400 million in donations to Democratic PACs and candidates since its founding in 2004. Sides and Farrell (2011) have found evidence of a "Kos Bump," with mentions of Democratic candidates on DailyKos.com producing a statistically significant increase in their daily fundraising totals. My own research (Karpf 2010) points to the importance of these online communities-of-interest in "drafting" congressional candidates and directing financial, volunteer, and media resources to nationally competitive priority campaigns. Simply put, the Internet has facilitated new small donor bundling strategies that bring thousands of new citizens into the electoral mobilization landscape.

Further empirical research raises important normative questions about the impact of these small-donor communities, however. Adam Bonica (2011) finds

that "fundraising from small donors is about partisan taunting and ideological appeals." Organized small-donor communities like DailyKos and the Progressive Change Campaign Committee on the left, or various tea party-affiliated organizations on the right[1], are made up of highly opinionated, highly motivated partisans. Based on Fiorina, Abrams, and Pope's (2005) claim that citizen policy preferences fit an approximate bell curve distribution, the citizens who are being activated online occupy the two tails of the distribution.

Vaccari and Nielsen (2013) likewise find that the electoral candidates who attract the most YouTube views, Facebook likes and Twitter followers are the polarizing candidates – the Michele Bachmanns, Allan Wests, Elizabeth Warrens, and Alan Graysons – who in turn are frequently featured on hub blogs such as DailyKos and RedState. When Representative Joe Wilson (R-SC) shouted "You Lie!" at President Obama during the State of the Union, he was rewarded with over $2 million in online donations.

Archon Fung (forthcoming) raises the normative question of whether incentivizing bombastic partisan behavior is a positive contribution to our democracy. He joins an ongoing debate over the comparative costs and benefits associated with participatory citizenship (Schudson 1998; Mutz 2006; Sunstein 2007; Abramowitz 2010; Fiorina et al. 2010). Michael Schudson argues that the ideal of a mass, engaged, informed citizenry is a historical canard, an ideal that the American public has never lived up to. Alan Abramowitz argues that a healthy public sphere must embrace the benefits of polarization – "polarization has served to energize the public by clarifying the stakes in elections."

Sunstein raises concerns that these engaged publics may develop within "information cocoons," resulting in cyber-balkanization. Magdalena Wojcieszak (2011) offers empirical evidence that some forms of deliberation can dangerously increase mistrust, while others can build cohesiveness. It remains to be seen which types of deliberation will succeed in these partisan online spaces. Both normative and empirical questions are being explored in the midst of continuous online developments.

Mundane Mobilization Tools

Within electoral campaign organizations, Rasmus Kleis Nielsen (2011) offers an important distinction between the digital technologies that receive the most fanfare

---

[1] See Skocpol and Williamson (2012) for a discussion of the various overlapping forms of tea party organization.

and the digital technologies that have the greatest impact. Nielsen highlights the importance that "mundane internet tools" take on within campaign field offices. Circa 2008, Facebook was receiving intense journalistic attention. But if Facebook access was cut off, campaign offices continued to function with practically no notice. By contrast, losing e-mail access circa 2008 is as damaging as losing phones, electricity, or indoor plumbing. It is only once a technology has reached mass diffusion and been incorporated into daily work practices that its most important impacts unfold.

Bimber, Flanagin, and Stohl (2012) incorporate this finding into a broader perspective on "technology as context." Quoting Mark Weiser, they write, "the most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it" (pp. 54–55). Individual social media platforms thus often distract from broader analysis of how technology is affecting American elections. "Just as feudalism cannot be understood from a theory of irrigation, or the Industrial Revolution from a theory of threshing machines or looms, understanding the information revolution requires more than a theory of how organizations use Facebook or Twitter" (pp. 42–43). This vein of research is pushing scholars toward a rediscovery of qualitative field research methods, building theories out of empirical observation of practitioners as they make use of the Internet in the context of campaigns.

Analytics and the "Culture of Testing"

Digital technologies have also been central to a new trend within political campaigns: analytics-based tactical optimization, or "computational management" (Kreiss 2012). Daniel Kreiss discusses how the 2008 Obama campaign used randomized A/B testing to optimize every element of their online communication strategy. Everything from the fonts to the photos to the size and shape of the "donate" button were randomly assigned to ObamaForAmerica.com's millions of visitors. The same analytics strategies were used to test e-mail fundraising efforts, often surprising campaign strategists with their results (Green 2012). The 2012 Obama campaign has been widely heralded for its heavy reliance on sophisticated data analytics, employing a combination of computer scientists, engineers, and social scientists.

Robert Bond, James Fowler, and a team of coauthors collaborated with Facebook on a massive online experiment that demonstrated the ability of technologically mediated social peer pressure to improve voter turnout (2012). Sixty-one million Facebook users were assigned one of three conditions: no message, an informational message, or a "social message." Incorporating the affordances of Facebook's social network produced a statistically significant increase in voter turnout. While this points to the unvarnished social goods that *can* emerge from

an enhanced digital environment, it also highlights the increasingly central role that a new set of online media institutions (Facebook, Google, Twitter) play in constructing political participatory efforts.

Journalist Sasha Issenberg discusses the broader move toward computational management and the "culture of testing" in political campaigns in his book *The Victory Lab* (2012). Issenberg focuses on the backend of online participation – the large voter files tied to a widening array of data points about each individual voter (Turow 2011). He also highlights the work of political scientists Donald Green and Alan Gerber (2000, 2004) who have rediscovered the value of randomized field experiments for political science research. The experimental, data-driven turn has taken hold both among practitioners and academics. At their intersection Analyst Institute promotes this culture of testing within political campaigns, helping the Democratic Party Network to optimize its mobilization and persuasion tactics.

These new data practices are not without their normative discontents, however. Philip N. Howard (2006) offered an early argument against the potential for "political redlining" that could come through increasingly sophisticated microtargeting techniques. As political campaigns are able to more narrowly target the zip codes, neighborhoods, households and individuals that they need to persuade and mobilize, they can also ignore expanded segments of the American electorate. We are potentially moving from swing states to swing individuals, employing savvy marketing professionals to attract these persuadables and mobilize these supporters with little semblance of the slow, messy deliberative practices enshrined in our democratic theories. Kreiss (2012) and Tufecki (2012) both raise normative concerns that the increased efficiency of the new databases carry a hidden democratic cost.

The Partisan Divide in Digital Campaign Techniques

In the aftermath of the 2012 election, the technology gap between the Republican and Democratic Presidential campaigns attracted substantial attention. This has been a topic of emerging academic research as well. While earlier studies focused primarily on incumbent vs. challenger websites (Druckman, Kifer, and Parkin 2009), scholars adopting the party network tradition[2] have instead focused on the differential adoption of information and communications technologies by ideological liberals versus conservatives. Shaw and Benkler (2012) find that the top progressive blogs offer more supportive community engagement architecture than their top conservative competitors. Barzilai-Nahon et al. (2011) find that these top blogs are central to the viral diffusion of YouTube video content.

---

2 See Cohen et al. 2009; Masket 2011.

In *The MoveOn Effect* (2012), I discuss the surprising absence of conservative equivalents to well-known progressive online successes such as MoveOn.org, ActBlue.com, and DailyKos.com, dating back through much of the past decade. Kreiss (2012) likewise traces the success of the 2008 Obama campaign's digital practices back to a network of practitioners that began around the 2004 Howard Dean primary campaign. The gap in online infrastructure is not isolated to the 2012 election, but instead takes on a more lasting character.

There is an emerging debate within the research community as to what is driving this technological infrastructure gap. Kerbel (2009) argues that it is rooted in ideology. The Internet, he says, is a fundamentally "horizontal" technology. Democrats/ progressives are more horizontally networked, while Republicans/conservatives prefer business-oriented, vertical chains of command. I argue against this "ideological congruence" thesis, instead theorizing that a set of "outparty innovation incentives" set the context for partisan dominance within any emerging technological regime.

Conservatives did not come to dominate talk radio until they entered a period of counter-mobilization against Bill Clinton. The Internet of the 1990s appeared to be conservative-dominant as well – the Drudge Report and FreeRepublic.com were two of the biggest political new media successes of that era. It was not until progressives entered a period of counter-mobilization against George W. Bush that DailyKos and ActBlue were launched (and MoveOn grew by an order-of-magnitude). At the interest group, candidate, and party network levels, a range of institutional incentives encourage tactical experimentation and investment in new infrastructure once a party has lost consecutive elections.

The out-party innovation incentives thesis (having only recently been published) has yet to receive sustained empirical scrutiny. Additional research, drawing upon historical, cross-national, and future electoral cases will be necessary to elaborate and test the underlying theoretical model. As with the four other research trends I have discussed above, these potential tests face unique methodological challenges due to the constantly shifting cluster of technologies that make up "the Internet."

Methodological Hurdles[3]

Bimber and Copeland's research findings highlight a central challenge for Internet politics researchers: one of the underlying objects we seek to analyze is itself still changing. Many have termed the current moment "the era of Big Data" or

---

3 This section offers an abridged version of the methodological argument I make in "Social Science Research Methods in Internet Time" (Karpf 2012b).

"Information Abundance." Yet in unexpected ways, the actual publicly-available data are tremendously slim, fickle, temporary, and scarce. Research on the Internet and political campaigns remains in its adolescent stage – both because the research community is relatively new and because of the novel methodological challenges with which we have to grapple.

Consider: nearly every US election since 1996 has been labeled "The Year of the Internet." One can identify important milestones at each of them: the first campaign websites in 1996, Jesse Ventura's Internet-fueled 1998 Gubernatorial race, John McCain's 2000 online fundraising prowess, Howard Dean's use of Meetup.com in 2004, Senator George Allen's "Macaca Moment" in 2006, and of course there is the 2008 Obama campaign (Lentz 2002; Bimber and Davis 2003; Foot and Schneider 2006).

This sets up a cluster of problems that are forcing Internet-focused social scientists to step away from many classical tools of social scientific analysis. Claims that 2000 was the "Year of the Internet" were not premature, nor were the same claims in 2008 historically inaccurate. Rather, the Internets of 2000 and 2008 were composed of different clusters of overlapping technologies, affording political actors different political opportunities.

Heavy scholarly attention was paid in 2008 to YouTube's role in the Presidential election. No scholarly attention was paid to YouTube in the 2004 election. The reason was simple: YouTube was not invented until 2005. Likewise, Facebook in 2004 was limited to a small audience of Ivy League college students. In the 2012 election, it had become far more mundane. In a very real way, researchers interested in studying the latest wave of technological developments are faced with an N of 1.

The rapid pace of technological development not only challenges our thinking around "technology as context" (Bimber, Flanagin, and Stohl 2012); it also routinely violates the *ceteris paribus* assumptions that undergird many of our most robust research methods. Consider the common practice of combining ANES survey data across election cycles to increase the statistical power of a regression-based study. If "Internet use" in 2008 connotes a substantially different practice than "Internet use" in 2000, then we *cannot* reliably pool the data.

Or consider Robert Putnam's well-worn commentary in *Bowling Alone* (2000) that the Internet decreases social capital because it is, in essence, the province of shut-ins. Many later researchers have sought to "disprove" the claim using newer data, demonstrating that citizens use the Internet to augment existing civic practices, rather than replacing those practices (we do not replace real friends with Facebook "friends." We communicate with our real friends using the dominant, shared communication technologies of the day). It is entirely possible, however, that both Putnam and the later researchers are correct. The Internet Putnam was

studying still appealed mostly to early technology adopters. These early adopters are demographically distinct from later adopters, and they display markedly different interests in the technology. By the time of the later research studies, the Internet itself had changed. And, more to the point, that change continues today.

The fast pace of Internet development and diffusion is paired with the glacial pace of traditional publishing timelines. Many books and journal articles published in 2012/2013 are based upon data collected in 2007/2008. The top journals for Internet politics researchers routinely receive empirical submissions dissecting online activity in the 2008 election. This is not a mistake on the part of the authors: it is a feature embedded in the traditional publishing system. Between grant-writing, data collection, initial conference presentations, revisions, peer-reviews, revise-and-resubmit, more peer reviews, and final acceptance for publication, a 5-year timetable is a reasonable expectation for many academics. But because the half-life of Internet-related research findings is often much shorter than it would be in other subfields, the research itself is undermined.

In response to the *ceteris paribus* and *half-life* limitations of many traditional data collection methods, many researchers are branching into the emerging field of "Big Data" or "computational social science" (Lazer et al. 2009). Drawing upon abundant online data that can be scraped from web pages, Twitter, YouTube, and other sources offers unique opportunities to measure and analyze various forms of public opinion. It is also a very new field, however, and one that faces some often-overlooked limitations. Centrally, most high-quality "big data" is proprietarily held. Most publicly-available "big data" faces a GIGO ("garbage in, garbage out") problem. Blog hyperlinks, Twitter retweets, YouTube views – all of these metrics are constantly barraged by motivated spammers seeking to game the system for profit.

As an overarching rule, *any metric of digital influence that becomes financially valuable, or is used to determine newsworthiness, will become increasingly unreliable over time* (Karpf 2012b). The data that we rely upon for computational social science projects is the subject of a constant war between two industries of code-writers: the spammers and the analytics professionals (Brunton 2013). (This is why, for instance, Google constantly tweeks the PageRank algorithm.) Computational methods hold promise, but it is far too early to say with confidence what questions they can reliably help us answer. In particular, they must be carefully paired with qualitative methods and field observations in order to support theory-building and offer robustness checks.

As a result, the Internet and campaigns research field remains far more focused on descriptive analysis than do the subfields adjacent to it. This is something of a pre-paradigmatic phase within the research community (Kuhn 1962). Rather than assessing, challenging, or defending causal claims or engaging in "normal science" research programs (Lakatos 1970), we are much more focused

on observing, describing, and cobbling together workable measurement schemes that can allow for some form of longitudinal analysis. These limitations will not disappear overnight, and they influence the set of possibilities that we can hope for in a near-term research agenda.

Research Agenda

In light of the methodological limitations discussed above, I believe we can hope for six major research contributions in the course of the coming 2–4 years:

(1) **Empirical research on small-donor activity and participatory polarization**

It is certainly possible that future surveys of citizen new media use will vary from the precise patterns displayed in Schlozman, Verba, and Brady's 2012 book. But we can now state with relative confidence that there will not be a dramatic departure. Corroborating empirical findings from Prior, Hindman and others strongly suggests that lower transaction costs and an expanded choice environment will lead to increased participation concentrated among citizens *already predisposed* to gather political information. The "knowledge gap" Prior finds in his Relative Entertainment Preference study is equally applicable to the Internet.

Secure in this finding of approximate stability at the mass behavioral level, it is now time for researchers to turn to a resulting wave of empirical questions. What are those citizens who *are* now engaging online actually doing? What drives activity, and what impacts (if any) do these new forms of online participation have on traditional institutional levers of power? It is time for us to move beyond the anecdotes of successful e-petitions and rejected "Twitter revolutions." Small donors are engaging in politics, and we still know far too little about what they are doing, who is assembling them, and what their broader effect might be.

(2) **Normative Inquiry into the Democratic Implications of New Participatory Patterns**

Researchers have mostly remained mum about the normative implications of these new participatory patterns. To be sure, it is a complicated topic. More citizen participation is a good thing. It is not an unvarnished good, though. If greater participatory incentivizes elite demagoguery, then there is cause for concern. There are a great many reasons why the American legislative

system appears non-functional to many public observers today. The Internet is surely not the sole culprit. But is it helping or hurting the state of affairs? An earlier generation of democratic theorists asked large questions about the nature of a well-functioning democracy. If such scholars still exist today, the contemporary research community rarely interacts with them. Some intellectual cross-pollination would likely be fruitful.

(3) Policy Recommendations for Pro-democratic Online Practices

The Bond et al. Facebook study offers a promising insight into the potential for social messages, promoted through major social network platforms, to support a healthy democracy. Proprietary research conducted by groups like the Analyst Institute similarly creates a baseline of privately-held knowledge about how new technologies can be used to build a better civil society. Publicly-oriented and policy-oriented researchers can work to better share many of these findings, and to advance new studies that help us answer practical questions about what Facebook, Google, Twitter and other online platforms/digital utilities can do to act as good corporate citizens.

It is time we all recognize that the Internet is not a panacea. It will not solve the ills of our electoral system. It will not render the parties irrelevant, slow the flood of money into politics, or repair civic trust in government. Citizens who have spent lifetimes forming a strong distaste for political information will not begin to seek out such information simply because it has become easier to do so. Instead, we are left with heavy participation from the polarized, engaged fractions of the broader public. The activity of those participatory publics can be made better or worse by design choices incorporated into the next wave of Internet development. The research community can play a prominent role in helping to figure out what these design choices might be.

(4) Campaign Impacts of Analytics and the Culture of Testing

If television's most memorable impact on political campaigning was the 30-second advertisement, the Internet's might turn out to be the randomized A/B test. Analytics, modeling, experimentation and testing are altering how campaigns are run, how budgets are raised and spent, and how voters are persuaded and mobilized. And just as television prefigured changes within the party networks (Cohen et al. 2009), analytics has a second-order impact on intra-party struggles for power.

The analytic turn within political campaigning is just beginning, and is worthy of empirical observation in its own right. Which features of political campaigning are made cheaper or more expensive through these data-intensive innovations? Which types of data are easily accessible and which

remain scarce, expensive, and unreliable? Which organizations and actors benefit from the new drive towards computational management? Who gains and loses influence through these new campaign structures, and what are the resulting implications for voter knowledge and participation?

(5) Research Into How Political Actors Make Use of Technology-as-Context
The research community will not remain in this pre-paradigmatic phase forever. In the present moment, much of the best work will consist of rich description and intentional theory-building. Along with qualitative and field-based observational methods, there is ample room for computational studies that help us reimagine public opinion in an era where more people are speaking than ever before, and they are doing so in previously unimagined ways.

Particularly in the leadup to the 2014 election, it will be important to examine the lower boundaries of "computational management" practices. The Obama campaign makes use of millions of data points. A local Neighborhood Council race makes use of dozens of data points, rendering computational management practices meaningless. Between those two extremes exists some threshold point that we can term the *analytics floor*. Above that threshold, campaigns are large and complex enough to adopt the "lessons of the Obama campaign." Below that threshold, campaigns in 2014 are structurally indistinguishable from campaigns of 1994. Herein lies a puzzle that will invite a range of experimental, observational, and formal studies, all with a substantial practical payoff.

(6) Understanding the Partisan Technology Divide
Partisanship in technology is the subject of great public interest, but has attracted virtually no attention from the research community. My own theorizing on the subject hardly suffices – several elements of the model remain theoretically underspecified. There is ample room for historical analysis of the partisan adoption of previous technological innovations. There is also room for cross-national analysis, as well as detailed process-tracing and network analysis of partisan technology providers in the leadup to the 2014 and 2016 elections. The partisan adoption of technology represents an almost entirely new field of study. It ought to be better populated in a few years' time.

Conclusion

The literature on the Internet and political campaigning remains in the early, pre-paradigmatic stages of development. There is still, frankly, a *lot* that we do not

know. That makes it an especially exciting field of inquiry, one in which scholars are grappling with important new puzzles, while simultaneously working their way through novel methodological questions. At present, the settled findings within the research community can help inform peer subfields about how new media likely interacts with their objects of analysis. Moving forward, there are several fruitful avenues that the burgeoning scholarly community will likely explore.

References

Abramowitz, Alan. 2010. *The Disappearing Center: Engaged Citizens, Polarization, and American Democracy*. New Haven, CT: Yale University Press.

Barzilai-Nahon, K., J. Helmsley, S. Walker, and M. Hussain. 2011. "Fifteen Minutes of Fame: The Place of Blogs in the Life Cycle of Viral Political Information," *Policy & Internet* 3 (1): 1–28.

Bimber, Bruce, and Richard Davis. 2003. *Campaigning Online*. New York: Oxford University Press.

Bimber, Bruce, and Lauren Copeland. 2013. "Digital Media and Traditional Political Participation Over Time in the U.S." *Journal of Information Technology and Politics* 10 (2): 125–137. http://www.tandfonline.com/doi/full/10.1080/19331681.2013.769925.

Bimber, Bruce, Andrew Flanagin, and Cynthia Stohl. 2012. *Collective Action in Organizations*. New York: Cambridge University Press.

Bond, Robert M., Christopher J. Fariss, James H. Fowler, Jason J. Jones, Adam D. I. Kramer, Cameron Marlow, and Jaime E. Settle. 2012. "A 61-Million Person Experiment in Social Influence and Political Mobilization." *Nature* 489: 295–298. http://www.nature.com/nature/journal/v489/n7415/abs/nature11421 html# supplementary-information.

Bonica, Adam. 2011. "Small Donors and Polarization." *Boston Review*. http://www.bostonreview.net/bonica-small-donors-polarization.

Boulianne, Shelley. 2009. "Does Internet Use Affect Engagement: A Meta-Analysis of Research." *Political Communication* 26 (2): 193–211.

Brunton, Finn. 2013. *Spam: A Shadow History of the Internet*. Cambridge, MI: MIT Press.

Cohen, Marty, David Karol, Hans Noel, and John Zaller. 2009. *The Party Decides: Presidential Nominations Before and After Reform*. Chicago, IL: University of Chicago Press.

Druckman, James N., Martin J. Kifer, and Michael Parkin. 2009. "Campaign Communications in U.S. Congressional Elections." *American Political Science Review* 103 (3): 343–366.

Fiorina, Morris, Samuel Abrams, and Jeremy Pope. 2005. *Culture War? The Myth of a Polarized America*. New York: Longman.

Foot, K., and S. Schneider. 2006. *Web Campaigning*. Cambridge, MA: MIT Press.

Fung, Archon. Forthcoming. *Viral Engagement*. Harvard Seminar Series.

Graber, Doris. 2010. *Mass Media and American Politics*. 8th ed. Washington, DC: CQ Press.

Green, Joshua. 2012. "The Science Behind Those Obama Fundraising Emails." *Bloomberg BusinessWeek*. http://www.businessweek.com/articles/2012-11-29/the-science-behind-those-obama-campaign-e-mails.

Green, Donald, and Alan Gerber. 2000. "The Effects of Canvassing, Telephone Calls, and Direct Mail on Voter Turnout: A Field Experiment." *American Political Science Review* 94 (3): 653–663.

Green, Don, and Alan Gerber. 2004. *Get Out the Vote! How to Increase Voter Turnout*. Washington, DC: Brookings Press.

Hindman, Matthew. 2009. *The Myth of Digital Democracy*. Princeton, NJ: Princeton University Press.

Howard, Philip N. 2006. *New Media and the Managed Citizen*. New York: Cambridge University Press.

Issenberg, Sasha. 2012. *The Victory Lab*. New York: Crown.

Jamieson, Kathleen Hall, and Joseph Cappella. 2010. *Echo Chamber: Rush Limbaugh and the Conservative Media Establishment*. New York: Oxford University Press.

Karpf, David. 2010. "Macaca Moments Reconsidered: Electoral Panopticon or Netroots Mobilization?" *Journal of Information Technology and Politics* 7 (2): 143–162.

Karpf, David. 2011. "Open Source Political Community Development: A Five-Stage Adoption Process." *Journal of Information Technology and Politics* 8 (2/3): 323–345.

Karpf, David. 2012a. *The MoveOn Effect: The Unexpected Transformation of American Politcan Advocacy*. New York: Oxford University Press.

Karpf, David. 2012b. "Social Science Research Methods in Internet Time." *Information, Communication, and Society* 15 (5): 639–661.

Kerbel, Matthew. 2009. *Netroots: Online Progressives and the Transformation of American Politics*. Boulder, CO: Paradigm Publishers.

Kreiss, Daniel. 2012. *Taking Our Country Back: The Crafting of Networked Politics from Howard Dean to Barack Obama*. New York: Oxford University Press.

Kuhn, T. S. 1962. *The Structure of Scientific Revolutions*. Chicago, IL: University of Chicago Press.

Lakatos, Imre. 1970. "Falsification and the Methodology of Scientific Research Programmes." In *Criticism and the Growth of Knowledge: Proceedings of the International Colloquium on the Philosophy of Science*, edited by Musgrave and Lakatos, 91–196. New York: Cambridge University Press.

Lazer, D., A. Pentland, L. Adamic, S. Aral, A-L. Barabási, D. Brewer, N. Christakis, N. Contractor, J. Fowler, M. Gutmann, T. Jebara, G. King, M. Macy, D. Roy, and M. Van Alstyne. 2009. "Computational Social Science." *Science* 323 (5915): 721–723.

Lentz, J. 2002. *Electing Jesse Ventura: A Third-Party Success Story*. Boulder, CO: Lynne Rienner.

Malbin, Michael. 2013. *Money vs. Money-Plus: Post-Election Reports Reveal Two Different Campaign Strategies*. Washington, DC: Media Release, Campaign Finance Institute.

Masket, Seth. 2011. *No Middle Ground: How Informal Party Organizations Control Nominations and Polarize Legislatures*. Ann Arbor, MI: University of Michigan Press.

Mutz, Diana. 2006. *Hearing the Other Side: Deliberative Versus Participatory Democracy*. New York: Cambridge University Press.

Nielsen, Rasmus Kleis. 2011. "Mundane Internet Tools, Mobilizing Practices, and the Coproduction of Citizenship in Political Campaigns." *New Media and Society* 13 (5): 755–771.

Nyhan, Brendan. 2012. "The Entirely Predictable Failure of Americans Elect." *Columbia Journalism Review*. http://www.cjr.org/united_states_project/americans_elect_predictable_failure.php.

Prior, Markus. 2007. *Post-Broadcast Democracy: How Media Choice Increases Inequality in Political Involvement and Polarizes Elections*. New York: Cambridge University Press.

Putnam, Robert. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.

Rosenstone, Steven, and John Mark Hansen. 1993. *Mobilization, Participation, and Democracy in America*. New York: Longman Classics.

Schlozman, Kay Lehmann, Sidney Verba, and Henry Brady. 2010. "Weapon of the Strong? Participatory Inequality and the Internet." *Perspectives on Politics* 8 (2): 487–509.

Schlozman, Kay Lehmann, Sidney Verba, and Henry Brady. 2012. *The Unheavenly Chorus: Unequal Political Voice and the Broken Promise of American Democracy*. Princeton, NJ: Princeton University Press.

Schudson, Michael. 1998. *The Good Citizen*. Cambridge, MA: Harvard University Press.

Shaw, Aaron, and Yochai Benkler. 2012. "A Tale of Two Blogospheres: Discursive Practices on the Left and Right." *American Behavioral Scientist* 56 (4): 459–487.

Sides, John, and Henry Farrell. 2011. "The Kos Bump: The Political Economy of Campaign Fundraising in the Internet Age." Paper presentation, Midwest Political Science Association Annual Meeting, Chicago IL.

Skocpol, Theda, and Vanessa Williamson. 2012. *The Tea Party and The Remaking of Republican Conservatism*. New York: Oxford University Press.

Stroud, Natalie Jomini. 2011. *Niche News: The Politics of News Choice*. New York: Oxford University Press.

Sunstein, C. 2007. *Republic.com 2.0*. Princeton, NJ: Princeton University Press.

Tufecki, Zeynep. 2012. "Beware the Smart Campaign. Op-Ed." *The New York Times*. http://www.nytimes.com/2012/11/17/opinion/beware-the-big-data-campaign.html.

Turow, Joseph. 2011. *The Daily You*. Cambridge, MA: MIT Press.

Vaccari, Cristian, and Rasmus Kleis Nielsen. 2013. "What Drives Politicians Online Popularity? An Analysis of the 2010 U.S. Midterm Elections." *Journal of Information Technology and Politics* 10 (2): 208–222. http://www.tandfonline.com/doi/full/10.1080/19331681.2012.758072#.UfLW3mSG3ug.

Williams, Bruce, and Michael X. Delli Carpini. 2012. *After Broadcast News: Media Regimes, Democracy, and the New Information Environment*. New York: Cambridge University Press.

Wojcieszak, Magdalena. 2011. "Deliberation and Attitude Polarization: What Happens when People with Extreme Views Encounter Disagreement." *Journal of Communication* 61: 596–617.

David Karpf is an Assistant Professor in the George Washington University School of Media and Public Affairs. He can be reached at dkarpf@gwu.edu.