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Technology Firms Shape Political Communication: The Work of Microsoft, Facebook, Twitter, and Google With Campaigns During the 2016 U.S. Presidential Cycle

DANIEL KREISS and SHANNON C. MCGREGOR

This article offers the first analysis of the role that technology companies, specifically Facebook, Twitter, Microsoft, and Google, play in shaping the political communication of electoral campaigns in the United States. We offer an empirical analysis of the work technology firms do around electoral politics through interviews with staffers at these firms and digital and social media directors of 2016 U.S. presidential primary and general election campaigns, in addition to field observations at the 2016 Democratic National Convention. We find that technology firms are motivated to work in the political space for marketing, advertising revenue, and relationship-building in the service of lobbying efforts. To facilitate this, these firms have developed organizational structures and staffing patterns that accord with the partisan nature of American politics. Furthermore, Facebook, Twitter, and Google go beyond promoting their services and facilitating digital advertising buys, actively shaping campaign communication through their close collaboration with political staffers. We show how representatives at these firms serve as quasi-digital consultants to campaigns, shaping digital strategy, content, and execution. Given this, we argue that political communication scholars need to consider social media firms as more active agents in political processes than previously appreciated in the literature.

Keywords Facebook, 2016 U.S. Presidential Election, digital politics, political campaigning, social media

In Philadelphia during the 2016 Democratic National Convention (DNC), Google commandeered a former industrial space called the Power Plant in the old part of the city. Designed as a hip tech space where politicians and their staffs mingled with young tech workers beneath soaring ceilings, guests shot live videos of themselves in a “Share Your Voice” photo booth and attended panels. In the convention arena, Twitter set up a small live-stream booth where members of Congress dropped by to be interviewed on Periscope. Next to the booth the firm’s employees worked beneath screens featuring real-time analytics on the use of Twitter during the convention. Meanwhile, Microsoft partnered with the political news organization Politico on Politico Hub, a space that featured live events, continually replenished refreshments,

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journalism workspaces, a 3D printer, and even an oxygen bar, while demos of the firm's numerous new analytics and data platforms played on screens throughout the space.

Not to be outdone, Facebook rented out a large bar enclosed in glass just off the convention floor, which was frequently closed for private events where the firm's employees mingled with politicians and media staffers. The space, designed primarily for journalists and elected officials according to Facebook's global politics and government outreach director, featured large screens displaying the firm's conversation data about the candidates and issues in the election culled from Facebook, Facebook Live, and Instagram (which the company owns). The Facebook Elections space also featured a formal broadcast studio, a Facebook Live studio, virtual reality displays, and a miniature oval office that the company invited Instagram influencers to visit and post pictures from during the first night of the convention.

These spaces at the DNC were designed to show off these firms' digital wares and facilitate their employees mingling with journalists and politicians. Political communication researchers are the most familiar with journalists, politicians, and campaign operatives in the context of political media events (Dayan & Katz, 1994) and political processes more generally (Cook, 1998). The field has vast bodies of literature devoted to the ways that political journalism is structured, organized, and practiced around media events and in the course of campaigning, governance, and policymaking. Likewise, scholars have a deep knowledge of campaigns and elections, as well as the relevant actors they perceive to shape electoral politics, and theories for how all of these processes and relationships might be changing (Chadwick, 2013). To date, however, we have very little understanding of the work of technology firms in politics, such as what motivations they have for staking out high-profile spaces at political events such as the DNC and the RNC, how they monetize campaign communication, and the behind-the-scenes work they engage in to encourage the adoption and profitable use of their services and platforms.

Despite the lack of theory and empirical findings about the role of technology firms in the political field, there is mounting evidence that points to their considerable attention to institutional politics. To take a few examples beyond the convention just detailed, Facebook recently donated \$62,500 in cash and had a space similar to what was at the conventions at the annual Conservative Political Action Conference (CPAC), "to teach conservative-leaning candidates there how to use its platform to reach new voters" (Romm & Scola, 2017). Google and Facebook staffers closely collaborated with the 2012 Barack Obama and Mitt Romney campaigns to facilitate digital advertising buys (Kreiss, 2016). In 2013, Twitter released a 140-page manual on using the platform in elections, a best practice guide. Meanwhile, in a 2014 strategy memo sent to Hillary Clinton's campaign manager and other senior leadership obtained by WikiLeaks (2016), senior digital advisor Teddy Goff outlined the potential for working with technology firms based on his experience on the Obama campaign in 2012:

Partnerships: Working relationships with Google, Facebook, Apple, and other technology companies were important to us in 2012 and should be even more important to you in 2016, given their still-ascendent [sic] positions in the culture. These partnerships can bring a range of benefits to a campaign, from access to talent and prospective donors to early knowledge of beta products and invitations to participate in pilot programs. We have begun having discreet conversations with some of these companies to get a sense of their priorities for the coming cycle, but would encourage you, as soon as your technology leadership is in place, to initiate more formal discussions. (WikiLeaks, 2016)

This article sets out to both document and analyze the work of these technology firms in U.S. electoral politics during the 2016 cycle, given the lack of scrutiny it has thus far received in the

political communication literature. To do so, we utilize a number of different sources of data. First, we conducted fieldwork at the Democratic National Convention in 2016, specifically focusing on the presence and work of Facebook, Twitter, Google, and Microsoft at the event. Second, to complement this, we conducted interviews with representatives at these firms to discuss the scope of their work in electoral politics. Finally, while in the course of conducting open-ended, in-depth interviews with digital staffers of 2016 presidential primary campaigns for another project (Kreiss, Lawrence, & McGregor, 2017), we added interview questions about their interactions with technology firms once this became an object of our research interest.

We find that these firms are more active intermediaries in U.S. electoral politics than is conventionally recognized in the literature. Despite the different services that these firms provide, all are engaged in U.S. electoral political processes for the direct revenue that it provides, to help market their products to wider audiences given the media and public attention that high-profile campaigns receive, and to facilitate relationship-building in the service of lobbying efforts – in addition to pursuing civic engagement efforts designed to promote democratic participation. To facilitate their work in electoral politics, these firms have all developed partisan organizational and staffing structures that accord with the two-party American system. In terms of the services they provide in electoral politics, all of these firms help campaigns reach voters on the basis of certain categorical data such as demographics, behavior, interest, and measures of attention that represent the public in new ways and shape strategic campaign communications. In addition, reflecting their orientation toward digital advertising sales, Facebook, Twitter, and Google actively worked with campaigns to help them understand and navigate particular services and optimize digital advertising strategies, and even advised campaigns on strategically producing content in ways that we liken to digital consulting.

Technology Firms in Political Communication

To date, the political communication literature has conceptualized technology firms primarily in terms of offering distribution channels and technologies for political communication. Scholars, for instance, conceptualize social media platforms as interactive channels that campaigns and other political actors use to communicate with voters, and document the ways they have taken up these platforms, or failed to (e.g., Gainous & Wagner, 2014; Stromer-Galley, 2014), as well as the impact of these messages on voters (e.g. Weeks, Ardèvol-Abreu, & Gil de Zúñiga, 2015). Scholars have looked at the effects one's use social media has on political participation, knowledge, attitudes, and behavior (e.g., Boulian, 2009; Schill & Hendricks, 2016). Others have analyzed the relationship between search and information seeking (Whyte, 2016). Meanwhile, a robust literature has grown up around the data that technology firms provide and the micro-targeting of political information it affords (Hersh, 2015).

While not specifically focused on institutional politics, there is an emerging, yet robust, literature on digital media industries that takes a more expansive view of firms such as Facebook, Twitter, Google, and Microsoft. These works focus on the role of technology firms in structuring the contemporary media environment in ways that shape social and economic life across many domains of activity. For example, Plantin, Lagoze, Edwards, and Sandvig (2016) show how Facebook and Google combine the features of infrastructure and platforms in powerful ways. As the authors argue, these firms provide accessible and public services that function as infrastructure, yet do so on platforms that combine stability and innovation in the service of commercial interests. Scholars such as van Dijck (2013) have revealed the tensions between social processes and commercial platforms, and the growing importance of data in monetizing human expression and relationships (see also Langlois &

Elmer, 2013; Pasquale, 2015). Broadly, as Plantin and colleagues (2016, p. 7) note, in platform studies scholarship, the concern is with “how platforms’ affordances simultaneously allow and constrain expression, as well as how technical, social, and economic concerns determine platforms’ structure, function, and use.” In a more political vein, there is scholarship that explores how the workings of the platforms offered by Facebook and Google shape what political and other actors do with them, specifically in terms of how design and algorithms shape the visibility of content and therefore public attention (Braun, 2015; Chadwick, 2013; Gillespie, 2010; Thorson & Wells, 2016; Webster, 2014). This includes consideration of how the programmers behind social media interfaces, and the economic logics of the firms that maintain them, shape and constrain how people and organizations communicate with and through them (see van Dijck, 2013).

In this environment, scholars have pointed to the ways that technology firms increasingly shape social relations and expression in consequential ways. Less well-understood, however, is how technology firms shape the media industry and, by extension, the workings of other fields, in terms of their social, economic, and technological organization. Few scholars, for instance, have looked *inside* (political) media or campaign organizations to examine how they navigate a new media environment dominated by Facebook and Google, as well as the new incentives and challenges they face. Even fewer have gone inside technology firms themselves to analyze how they see their business strategies take shape across different industries. An exception is Nielsen and Ganter’s (2017) recent case study that sheds light on the complicated relationship between “digital intermediaries” and news media organizations. They find that publishers are forced to adapt to the search services provided by Google and social distribution platform of Facebook, while in the process losing their independence as an institution.

In sum, Nielsen and Ganter (2017, p. 15) largely describe power *asymmetries*, where large, well-resourced news organizations attempt to capitalize on new digital distribution and revenue opportunities, but find themselves in danger of losing control over their “editorial identity,” “access to data,” and “revenue.” These digital intermediaries can change their platforms on a whim to suit their own interests, forcing news media organizations to adapt to what can amount to a radically changed distribution environment. This fundamental *dependence* on digital intermediaries for distribution is an important source of the power of these technology firms to create structures of communication (Gillespie, in 2010; Pasquale, 2015; van Dijck, 2013).

Nielsen and Ganter (2017, p. 16) conclude with a call for more research on how “other organizations deeply dependent on their ability to communicate publicly, such as, for example, political campaigns and social movements—handle their relationships with digital intermediaries....” This article takes up this call, offering the first empirical inquiry focused specifically on why and how technology firms work with campaigns in the political field in the United States. On the one hand, we expect some convergent findings with studies of the news media. As we have previously demonstrated (Kreiss et al., 2017), the affordances of platforms can change in the middle of an electoral cycle, without warning or transparency, forcing campaigns to adapt on the fly.

And yet, in the United States the political field is, we expect, in a fundamentally different, and comparatively stronger, position vis-à-vis digital intermediaries than is the news media industry. First, the political field has the potential to deliver substantial direct revenues to technology firms through digital advertising and the utilization of data services, while the publishing industry mostly supplies content to these firms—and the low barriers to entry and many potential rival content producers mean that firms such as Google and Facebook can leverage competition in publishing. Presidential politics alone, for instance, has grown to an approximately \$2 billion industry. Digital spending grew considerably over the past decade and has increased notably cycle to cycle (Kaye, 2017), with Donald Trump’s campaign even

devoting an unprecedented 50% of its advertising expenditures to digital (Franklin Fowler, Ridout, & Franz, 2016). Second, the candidates that campaigns run are ultimately in a position to regulate technology firms if they win, and as such we can expect that these firms have a stake in trying to maintain good working relationships with the political field. Third, social media platforms are increasingly becoming a primary way that citizens participate in democratic processes and expression (Chadwick, 2013), and U.S. presidential cycles are subject to enormous amounts of media and public attention. As such, being involved in helping campaigns connect with citizens can offer the technology field legitimacy, status, and marketing opportunities among the public.

Given this, we expect to find some different dynamics between campaigns and technology firms than what Nielsen and Ganter (2017) detail with respect to the news media. We expect technology firms to offer a wide array of services for campaigns and to approach the political field primarily through the lens of sales, especially data services and digital advertising, and marketing, particularly around encouraging the adoption of their platforms by campaigns. Given the way that digital advertising monetizes higher rates of engagement, and that campaigns can be short-staffed in the context of digital media (particularly during primaries), we expect that technology firms actively work with campaigns around the use of their services and platforms. And, based on the insights of institutional theory (Cook, 1998; Lowrey, 2012), we also expect that these technology firms will have adapted to the structures and logics of the political field, especially the partisan nature of political campaign consulting.

Finally, we note here that this study is confined to U.S. electoral politics. The work of global, U.S.-headquartered technology firms in U.S. politics is simultaneously important, and likely atypical. These firms are all headquartered in the United States, and the country not only constitutes their largest source of revenues in all of these cases, it is also where they are subject to their primary regulation and taxation. As such, the U.S. case is likely to feature more technology firm engagement in electoral politics than might be the case in other countries, and also provide the political field with greater leverage over these firms. At the same time, given that these firms are based in the United States and the global attention the country receives, we also expect that they are particularly sensitive to issues regarding the roles their platforms play in politics, from concerns over political privacy in the context of political ads to informational manipulation. We address the implications of our findings for other countries in the discussion section.

Methods

The initial idea for this study arose during an interview with Rand Paul digital director Vincent Harris on July 12, 2016, which was conducted in the context of another study on U.S. campaign use of digital and social media during the presidential primaries (Kreiss et al., 2017). Harris described, which we relate in more detail later, how closely the campaign worked with Google's staffers, including flying to the firm's headquarters in Silicon Valley, California, for "ideation" sessions. We asked if we could follow up with Google staffers, and Harris put us in touch with the Republican elections liaison he worked with, Ali-Jae Henke. We subsequently interviewed her on two separate occasions, and even invited her to the first author's university to give a talk about Google's role in electoral politics.

After the interview with Harris, the first author added a series of field observations around the work of technology companies at the DNC to an already planned study of the convention (that at that point was only designed to focus on how campaigns and delegates were going to use social media around the event). After hitting the ground in Philadelphia, the presence and work

of technology firms at the convention quickly became the primary object of analysis. The research team consisted of five individuals [all from the first author's university system, including two faculty members, a Ph.D. student, and two undergraduate students] who spent three days on the ground in Philadelphia. The team observed social media use at the convention and off site by organizers, audiences, and protestors as well as the work of teams from Facebook, Twitter, Google, and Microsoft. We determined the observational sites for this study inductively based on our emerging interest in the work of these firms, which included observations at the Microsoft/Politico Hub, the Facebook Elections event space, the Twitter Politics and Government space, and the Google Unconventional space. The Microsoft/Politico Hub and Google Unconventional space were both open to the public in theory (although Google events often had guest lists). In contrast, Facebook and Twitter set up shop on the perimeter of the convention arena, in sites only accessible to delegates, journalists, and attendees with high-level credentials.¹

After we gathered data from the convention, we pursued two additional lines of inquiry into the work that these firms perform in politics. First, we strategically added a set of interview questions about work with firms to the in-progress study analyzing the role of social and digital media on campaigns during the 2016 cycle. We present the data from these interview questions here, which offered unique ground-level insight into how campaigns interface with technology firms. All together, we conducted interviews with nine senior-level digital staffers (or their organizational equivalents) working on presidential campaigns on both sides of the aisle during the 2016 primaries and general election. These individuals are

1. Matthew Compton, deputy digital director of Hillary Clinton's general election campaign;
2. Christopher Georgia, digital director for Jeb Bush's 2016 campaign;
3. Chris Maiorana, digital strategist and chief technology officer for Mike Huckabee's 2016 campaign;
4. Jordan Powell, deputy campaign manager for Huckabee;
5. Caroline McCain, social media manager for Marco Rubio's 2016 bid;
6. Jack Minor, deputy digital director for Ted Cruz's 2016 campaign;
7. Vincent Harris, digital director for the Rand Paul 2016 campaign;
8. Christina Reynolds, deputy communications director for the Clinton primary and general election campaigns, who worked closely with the digital team; and,
9. Hector Sigala, social media director of the Bernie Sanders 2016 campaign.

We asked these individuals specifically about their social media adoption during the cycle and, uniquely for this project, their work with technology firms.

Second, we interviewed representatives of these technology firms. In addition to Ali-Jae Henke from Google, at Facebook we conducted a group interview with global politics and government outreach director Katie Harbath, the firm's liaison to the Hillary Clinton campaign Crystal Patterson, and Andy Stone, a communications representative. We also interviewed Nu Wexler, director of public policy communications at Twitter. Finally, in addition to a guided tour of the Microsoft/Politico space at the convention, we also sat with Stan Freck, the director of campaign technology and services at Microsoft, for an on-background interview, which we used to confirm and extend other participants' arguments. All of the interviews for this study were conducted on the record, with the exceptions noted earlier, although participants could declare any statement not for attribution (directly quoted but anonymously sourced), on background (not directly quoted), or off the record (not reported in any way) at their discretion.

A note on the nomenclature that we use here and the differing types of companies these firms represent. We follow the lead of classic accounts of the new economy (see [Saxenian, 1996](#)) in grouping Facebook, Twitter, Google, and Microsoft together under the label of "technology

firms.” Broadly, scholars have identified these and related companies as engaged primarily in information and communications technology-related businesses. That said, as we note later, the business models and products, and therefore the work, of these firms are different. Facebook is primarily a social media firm that not only owns other platforms such as Instagram, it is also an important publishing platform for the media industry. Twitter is primarily a social media firm, but increasingly offers distribution channels for live video from news organizations (including all three presidential debates, as well as the vice presidential debate). Google is primarily a search and digital advertising company, but also hosts and distributes content on YouTube (which also incorporates social networking features) and provides a vast array of services around e-mail and documents. Finally, Microsoft can be described as primarily a technology company that builds software products such as its popular Office suite, in addition to providing cloud data services that lie behind many other commercial and political services. In the findings presented in this article, we note the roles these firms play in electoral politics, as well as when those roles converge and diverge, in part based on the different services they offer campaigns.

Findings

Motivations and Structures of Technology Firms Working in Electoral Politics

Representatives from all four firms stated that the growth of their work in electoral politics was driven by the desire for direct revenues from their services and products, for candidates to give their services and platforms greater public visibility, and to establish relationships with legislators. For example, it is perhaps surprising in the context of how far the industry has come at the time of this writing, but these technology firms cited that it was a struggle to have their products and platforms taken up by candidates in 2008. Katie Harbath (personal communication, January 24, 2017) cited that during that cycle, the Facebook founder’s sister Randy Zuckerberg was at the conventions, “trying to get interviews with people” (she had more success with Democrats than Republicans). Adoption grew significantly in between election cycles, so that Harbath cited that “2012 was the first campaign where I think you saw significant ad spend by the campaigns.”

Alongside growing advertising sales, these firms also sought out the visibility that came with the uptake of their products in the political space, which we discuss in greater detail later, as well as the opportunity to create relationships with legislators that would further their government relations efforts. The presence of these firms at events such as the Democratic and Republican national conventions facilitated relationship-building with candidates, elected officials, and journalists. These firms universally saw conventions as opportunities to be at the nexus of government, business, and media. At the same time, staffers at these firms stated that providing tools to candidates to help them get elected was a way to build relationships with the elected representatives who would be in a position to regulate them in the future. Indeed, the political services team within at least one of these firms was not specifically tied to any revenue expectations, precisely in recognition of this government affairs role.

To facilitate this work, all four firms developed organizational structures that accord with the partisan nature of campaign staffing and consulting. Microsoft, Google, Twitter, and Facebook all came to adopt and currently have organizational structures and staffing patterns that are organized along partisan lines. These firms have partisan teams, often made up of practitioners with backgrounds in Democratic and Republican politics, which work with campaigns and parties of the same political affiliation. One universally stated reason is that campaigns and party operatives are more likely to trust, and therefore work with, people who share their political ideology and identity. In addition, people with backgrounds in partisan

politics can bring in new business through their social connections. Nu Wexler (personal communication, January 24, 2017) described Twitter's structure and the rationale behind it:

Our advertising team has people who work with Republicans and right-leaning organizations, and the same on the left.... A lot of it is just about relationships. It's like you have these people, these connections, so that's part of it. Then another part of it, I think, is just trust. Put it this way, if I'm the ACLU [American Civil Liberties Union] and I know my ad rep is also working with Trump's Super PAC, I'm going to be less inclined to give you money to run my ad.

In other words, technology firms have adopted structures that correspond to the institutional workings of the political field at a time of partisanship and polarization in campaign services (for a history of how digital consulting became partisan, see Kreiss, 2012). Every campaign practitioner we asked confirmed that this fosters trust in technology firms. As Caroline McCain (personal communication, December 21, 2016), who was the social media manager for Marco Rubio's primary bid, noted, speaking in the context of Google, "When you realize, 'Oh yeah, the person I'm working with at Google, they actually worked on Romney back in 2012.' Like, 'Oh, okay they actually might have our best interest in mind.'" Google's politics and elections team specifically recruits staffers based on their prior political work, seeking out top digital practitioners on both sides of the aisle who can leverage their relationships for the firm while using shared partisan affiliation as the basis for trust. Practitioners cited that this was important because of the close working relationships between Google and campaign staffers.²

Harbath, of Facebook, who by 2016 was serving as the director over dedicated Democratic and Republican teams, described her firm having a similar partisan structure, which evolved since 2008 as it became increasingly clear that the political field was looking for partisan alignment in social media services. Harbath (personal communication, January 24, 2017), who came from the world of Republican politics, having worked on behalf of George W. Bush's re-election campaign while at the Republican Party, described how coming up in the culture of a party facilitates working relationships with campaigns:

The thinking was, is that you want to hire people that those folks already trust, that understand that world that they're coming from, because they used to work in that world and they used to have to do those jobs.... They want somebody who understands how they do politics on their side, understands the background, and in some ways, is one of them. Because there's always a concern of leaks, and who you're letting in, and what are they sharing.

Campaign Services

The specific services and products these firms and their partisan teams offer candidates differ based on their businesses. Microsoft plays what is best described as an infrastructural role for campaigns and parties, providing backend data platforms that help them manage their digital operations. In contrast, Facebook, Twitter, and Google are oriented toward facilitating digital political advertising across their various platforms, in addition to playing an active role in shaping how candidates use them to communicate with voters. In the process, we reveal how these firms play an active role in shaping the very ways that these campaigns use social media to represent their candidates.

Marketing and Promotion at the 2016 Democratic National Convention. Microsoft's political business is focused on creating backend data and analytics platforms that help political actors store and manage data, as well as make it actionable in electoral contexts. Microsoft primarily works with technology vendors in the political space who, in turn, work with parties as well as campaigns, offering data architecture, infrastructure, and backend storage that supports computational thinking. The firm's goal, to use a metaphor, is to provide the contemporary version of MS Office (which made computing more accessible for businesses and individuals) for analytics and machine learning. To provide an example, Microsoft provided all of the DNC's e-mail and live-stream technology during the convention. A number of Microsoft tools were on public display at the DNC, including the Power BI data visualization platform that enables real-time social media aggregation and analytics, and Pulse, which facilitates audience feedback around events (see Figure 1A). The convention afforded an opportunity to demonstrate these products for the political field, such as during a panel on digital campaigning at the shared Microsoft/Politico space (see Figure 1B).

In contrast, Facebook, Twitter, and Google work much more closely on a content basis with political candidates to facilitate both the adoption and use of their platforms and digital advertising. For example, the convention provided a high-profile space to demonstrate the platforms and services of these firms and their political uses. The Facebook Elections space at the convention was designed primarily for journalists, in part for regulatory reasons. Harbath (personal communication, July 28, 2016) stated that Facebook has to make its analytics platforms and spaces at the convention available to the press so its work around electoral politics does not count as in-kind donations to candidates in accordance with Federal Election Commission guidelines. The secondary audience according to Harbath consisted of politicians, policymakers, candidates, and delegates. As such, the space at the DNC was outfitted with services for both these fields, including a formal broadcasting studio for journalists going live on Facebook, a Facebook Live mini-broadcasting space complete with a help desk (see Figure 2), and real-time analytics and displays that featured aggregations of social media content posted on Facebook and Instagram (see Figure 3). Facebook also demonstrated an analytics platform that tracked the social media "conversation," or the issues that were prevalent on the platform nationally and within states. Harbath (personal communication, September 29, 2017) cited that people use the Facebook platform to try and discern and

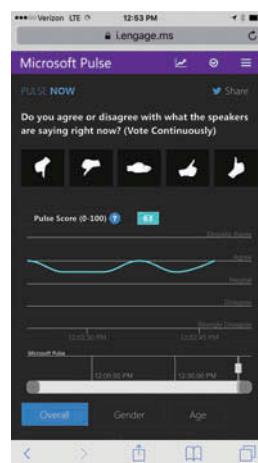


Figure 1A. Screenshot of Microsoft Pulse



Figure 1B. Digital campaigns panel at the Microsoft/Politico Hub

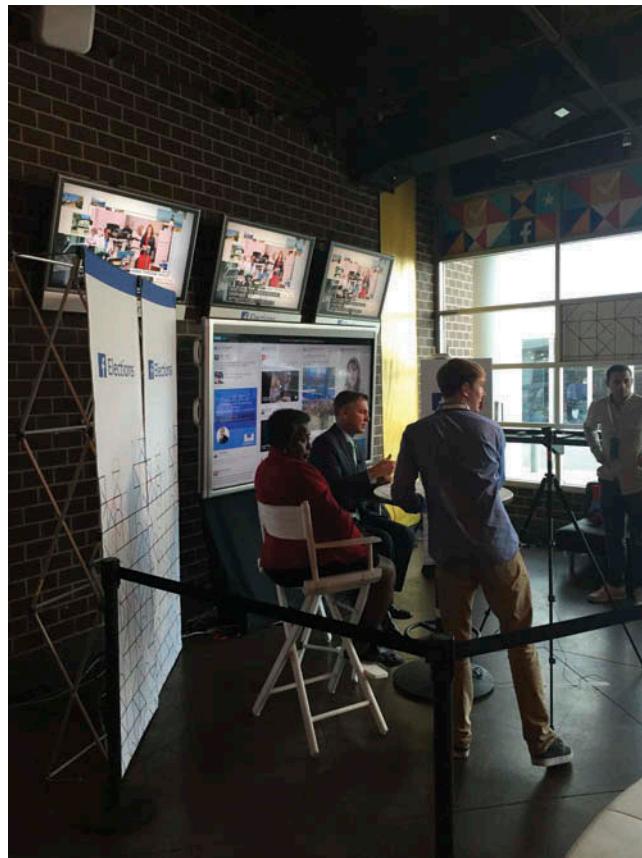


Figure 2. Facebook Live broadcasting space at the Democratic National Convention

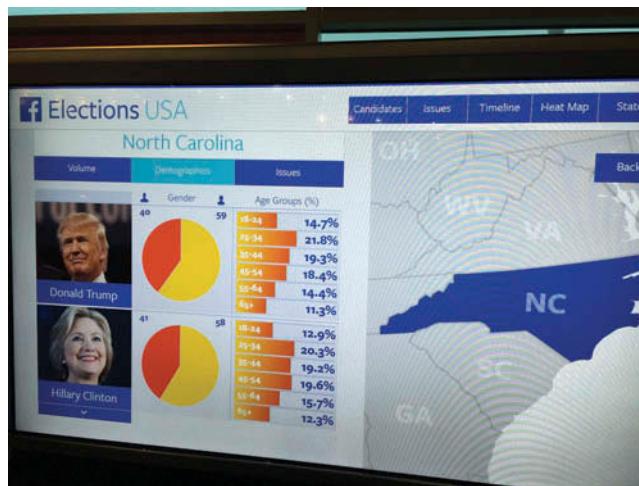


Figure 3. Facebook Elections data on display at the Democratic National Convention

understand electoral outcomes given that there are millions of conversations around electoral events such as Brexit in the U.K. and the U.S. presidential election.

Facebook's DNC presence reveals how the firm seeks to influence the ways that candidates and elected officials communicate with the public and journalists understand public conversation on Facebook. The Facebook Live studio and help desk, for instance, were specifically designed to promote the product in the political and media fields. In product demonstrations with journalists and political operatives and elected officials touring the convention space, Facebook staffers described the analytics platforms as displaying the conversations around the candidates and issues, which helped them understand the dynamics of the election. Candidates then could use the results of that data to shape their messaging and advertising strategies.

Twitter's role at the convention offers another example of the way that social media firms promote their products and services. The Twitter space consisted of a set of tables under a bank of screens displaying analytics on the real time use of the platform around the convention, which doubled as a workspace for the firm's employees (see [Figure 4](#)). According to Alex Wall (personal communication, July 28, 2016) of Twitter Government & Elections, whom we spoke with informally at the convention, one of the team's goals was to produce analytics on Twitter use around the convention for members of the media, in essence casting it as a new form of public opinion (interestingly, both Twitter and Facebook lacked any systematic tracking of how these data are actually used or reported on by the press). The firm's staffers provided data on things such as the share of the Twitter conversation speakers received, top moments of the convention, the conversation around particular candidates and speeches from the floor, and real-time top posts and accounts. At the same time, the Twitter space also featured a live broadcasting booth called the "Blue Room," a location members of Congress dropped by and used during the convention (see [Figure 5](#)).

Behind the Scenes Collaboration Between Technology Firms and Political Campaigns. Outside of the conventions, which primarily provided a number of marketing opportunities for these technology firms, they also worked directly and extensively with the 2016 campaigns. Representatives of technology firms cited that Trump's campaign, in particular, compensated



Figure 4. Twitter analytics display at the Democratic National Convention



Figure 5. Twitter Blue Room live broadcasting space at the Democratic National Convention

for its small staff size by leveraging the staffers and expertise of technology firms, which helped its team identify and find supporters, persuadable voters, and targeted demographic groups online. One way the campaign did so was by convening technology firms around the campaign. As Wexler of Twitter (personal communication, January 24, 2017) described:

The Trump model was that they... rented some cheap office space out by the airport, a strip mall, and they said it's going to be Trump Digital. They had the companies, of the advertising companies, social media companies come down there [San Antonio] and work out of that strip mall. And we did it, Facebook did it, Google did it.... I think they did it for two reasons. One; they found that they were getting solid advice and it worked, and two; it's cheaper. It's free labor.

Echoing other technology firm staffers, Wexler argued that a lot of the expertise these teams provided was around helping campaigns “build ads that get results.” This includes their role of serving as quasi-digital consultants to campaigns in order to help them optimize, create more engagement around, and tailor and expand audiences for their ads. These technology firm staffers, in turn, generated larger returns *for both these companies and campaigns*. These mutually beneficial relationships stand in contrast to the antagonistic and unequal relationships between these firms and the news media, as described by Nielsen and Ganter (2017). For technology firms, this meant more revenue; for campaigns, the better performance of ads meant more attention to their messaging among targeted groups, more sign-ups to their e-mail lists, and more donations. Practitioners at Facebook, Twitter, and Google all cited that for a short-staffed Trump campaign, the expertise provided was particularly important (whereas better-resourced campaigns, such as Clinton’s, did more in-house design and targeting.) As Wexler (personal communication, January 24, 2017) details:

I think what they were offering was like, “This event happened,” or, “Trump’s going to give a speech tomorrow. What if you did an ad campaign previewing the speech or something, afterwards with a video of the speech?” You can also just straight up look at the ads that they had for asking for money, and you basically say “You’ve run four of these ads, and number two was off the charts. Then the other three were.... Let’s do more number two.”

Another way to think about this is in terms of subsidies that technology firms offer to actors in the political field, not unlike the informational subsidies that the political field provides journalists (Cook, 1998; Starr, 2005). These subsidies of expertise are mutually beneficial: technology firms derive ad revenues and build relationships with campaigns and their candidates, while campaigns optimize their advertising and extend the reach of their messaging. While future research is needed to analyze how campaigning and the work of these firms evolve, it is likely that not all campaigns benefit equally, however. It appears that the resources that technology firms provide to the political field offer greater benefit for cash-strapped campaigns in comparison to more well-resourced ones with large in-house staffs that might be able to perform many of the same functions. Even more, campaigns also need to perceive the desirability of outside expertise in order to leverage it. For example, a number of the practitioners in this study argued that Trump was able to make up for his competitive staffing disadvantage against Clinton through leveraging the talent and expertise of firms such as Facebook, Twitter, and Google. As Wexler (personal

communication, January 24, 2017) describes, in a dynamic that was echoed by representatives of Facebook and Google:

I think the Clinton campaign had the in-house resources. They had a very large team, and they had their plan on what they were planning to, how they're going to spend their money.... That's not to say the Clinton people didn't ask anyone for help, but they were clearly.... They had more resources and staff, and then dictated.

The overarching sentiment echoed by representatives of Facebook, Twitter, and Google was that campaigns such as those of Sanders and Trump worked very closely with these firms, while Clinton's much larger team dictated their advertising buys and strategy. As one representative of a firm stated, in a quote not for attribution (personal communication, date withheld), "Clinton viewed us as vendors rather than consultants."

This sentiment captures the extent of the work that these firms perform for campaigns. These firms take on an active role advising campaigns on all aspects of digital strategy, from advertising to helping them utilize various platform tools to interpreting and making use of various analytics. McCain (personal communication, December 21, 2016), who was Marco Rubio's social media manager, detailed the different ways she worked with technology companies during the election and their motivations for being in the political space from a marketing perspective:

They're [Facebook] working with a campaign to make sure that they're taking full advantage of all the tools at their disposal. If Facebook decides they're going to roll something out, a new tool, they want to make sure that these campaigns know about it because they would love for us to use it because if we're using it and everyone is paying attention to the election.... I know there were Facebook folks who worked with our team on advertising private stuff. I talked with a guy at Instagram fairly regularly. I've talked with some people at Google because Google was rolling out new product features during the campaign and wanted us to use them. Twitter too, a lot of times they were people I would go to when I was troubleshooting or I would run into a problem or I'd have this idea that I'd never seen it done before and I was wondering if it was possible.

McCain captures the broad scope of work that these firms do and their various motivations for doing so. For campaigns, the firms provide an essential resource, communicating expertise and troubleshooting as practitioners attempt to figure out the most effective digital advertising and audience engagement strategies, and navigate new tools and features of platforms. For example, McCain also talked extensively about her work with Google. Henke, who worked with numerous 2016 Republican primary bids as well as the nominee's campaign, was formally dedicated to working with candidates on their advertising plans, but the actual scope of her work was much broader. For example, Henke stated that advertising across Google's many properties is only one part of a broader strategic digital communications strategy. To advise campaigns, Henke (personal communication, September 30, 2016) worked directly and closely with digital campaign staffers or consultants on everything from targeting strategies to content development:

So, a lot of times the way that we work together is they have a really strong sense of what their political challenges might be and that comes directly from

the campaign. So my role with them is, they say, like, “Look, we really want to get attention and we want to reach as many people as possible and these are kind of the areas politically where we might have challenges or the different types of voting blocs we need to reach”—moms, or we need to reach millennials or something like that—and so then I am able to in that advisory capacity be like, “Well, this is what moms look like online, this is how we find them, or this is millennials’ behavioral trends online and this is what we should do to reach them, and you know all the while we should definitely use because it feels real right like we should be using ads to do that.”

Henke helped campaigns use data from Google to develop their digital strategy and figure out how to reach targeted groups of voters across Google’s properties, especially search and YouTube. As an example of search, Henke worked with clients to help them develop and run search ads, such as around searches for their opponents’ names during the beginning of the primary season, on the assumption that if people are Googling a candidate’s name, they would be open to learning information about her opponent as well. Alternatively, candidates would run search advertising around salient issues in the news. As Romney was attacked for his Bain Capital ties during the 2012 cycle, for instance, the campaign went up with search ads talking about how the candidate was a job creator. In other words, campaigns use search advertising to try and reframe issues in a way that is more advantageous for their candidate. Henke also helped campaigns design advertising strategies using the firm’s data, including about the *types* of people interacting with search ads (such as blue-collar voters). This included determining which sites in the extensive Google network of seven properties (that each have over a billion users) to advertise on and developing a target audience across them, including tracking individuals across the firm’s many properties.

In addition to search advertising, Henke worked with campaigns to craft content on the parts of the Google search page that are customizable. For example, on the right-hand side of a Google search page is what is known as the “knowledge panel,” which is populated with information about a candidate’s biography and issue stances drawn from sites such as Wikipedia. At the very top of the page are ads, and under them is relevant news information from Google News. Before the actual search results, over which advertisers have no influence, is content that Google calls “cards,” which campaigns can populate for free. This includes social media content, issue position information, and other content that campaigns choose to display for search audiences. Henke works with campaigns to populate this content (without consulting with the Google Ads team):

They [Google] give the campaign access to it so the campaign is actually able to produce these cards that are their information... so that people who are sitting on the search page are seeing the most up-to-date information coming from the campaign’s perspective and then, how *I would work with the campaign is beforehand telling them, strategizing what issues might be most relevant and what they are going to want to produce ahead of time because it just moves so fast*. So if you know that it is the business debate, we know that it is going to be a lot of economy and job issues. You are going to want to be on message for that and you kind of look at the other side of the aisle and you say, “I know this is what you are going to be hit on so you definitely want to have a response from the hopper for that,” and then you probably want some additional, like, depending on what your very base goals or lead generation you want to be getting people’s e-mail addresses and

things like that. You will have some of those to fill in during some of the lulls.
(emphasis added)

The Bush team recounted their workings with Google, particularly in creating these “cards” of customizable content that appeared in search results. Bush’s staffers worked directly with another Google associate who was overseen by Henke. As Georgia (personal communication, July 13, 2016), the digital director, recounted:

We had our plan for that and were like, okay, here’s a messaging point that we’re gonna hit home. We know that, on top of that, the most Googled thing whenever the candidates walked out on stage is, “How tall is Jeb Bush?” So we had a graphic that compared his height to the height of NFL quarterbacks because people associate height with leadership. That showed him, that he was taller than a bunch of NFL quarterbacks and that was what we put in our card there so that, if people searched that, that information was available to them.

As is clear, Henke’s role (and that of others within Google) went beyond targeting voters and buying advertising to encompass advising campaigns on the strategic development and placement of content, something more akin to a digital consultant role. This required Google’s staffers to work exceptionally closely with campaigns. Specifically discussing her relationship with Bush’s digital director during the primaries, Henke stated, “we are so close with them we are typically sitting in their offices or having daily calls.... So there is a lot of comfort there. So it allows us to have a really great relationship where we can kind of talk through a strategy very openly.” According to Henke and digital campaign staffers, this relationship was not uncommon. Google account staffers had standing weekly calls and were in constant communication with campaign staffers and consultants through text, phone, and e-mail. Some of this communication included things such as Google managers watching candidate schedules and suggesting things like running state-specific search advertising on the basis of candidate appearances.

Google staffers reached out to all candidates to offer their services in the attempt to ensure equal access to the firm for campaigns. Then the firm decided internally who was going to work with each campaign, often on the basis of prior working relationships. At the presidential level, there was often a dedicated account staffer for every campaign. At the gubernatorial and senate level, Google generally worked with political consultancies, such as Targeted Victory, which represent multiple candidates, or party organizations such as the Democratic Senatorial Campaign Committee and the National Republican Senatorial Committee. During the early primary season, Google typically ran search advertising for candidates and other organizations in service of list building and fundraising, in addition to finding and identifying audiences that would be receptive to partisan messages. As candidates dropped out and the electoral cycle moved through different phases, Google’s own internal team grew and staffers became more specialized and dedicated to particular tasks and platforms.

To illustrate this further, it is worth looking specifically at the collaboration between the firm and the Rand Paul campaign. Henke worked closely with Paul’s digital consultancy, Harris Media. Both Vincent Harris, the founder and head of the firm, and Henke described the partnership in creative terms, which in part stemmed from helping a candidate running from behind who embraced technology and was willing to experiment. For Henke, Harris Media knew the importance of video and search; her work focused on helping them develop content that would appeal to the audiences they were targeting. To

this end, Google hosted an “executive summit” with the campaign, inviting staffers to Google’s Mountain View (California) campus to meet with the creative teams that worked with major brands. Google offered this to every presidential campaign, but it was Paul that took them up on the offer.³ The resulting “ideation” sessions focused on what challenges the Paul campaign was facing and the types of groups the candidate needed to reach with creative content. The idea that seemed to capture his candidacy for people in this session was that technology provides the opportunity for voters to access candidates on an equal footing with social elites, and in their estimation Paul was the ideal candidate to be a symbol of this (again, note how this message is mutually beneficial, promoting the candidate but also a particularly democratically “ideal” notion of the role of YouTube). The team settled on live-streaming as the way for Paul to connect with the nation and decided to spend a full day on this, where they promoted it, collected questions from voters, and allowed voters to access his life for 24 hours. This was done in summer 2016, and the live-stream ran on both Facebook and YouTube, attracting considerable media attention.

Across all of our interviews with these firms, there was a lack of clarity around how to refer to and describe this type of work, which suggests both the ways that the roles of technology staffers working with campaigns are still evolving and fall outside of institutionalized categories of campaign work. For example, this exchange between Crystal Patterson, Harbath, Andy Stone, and Kreiss (personal communication, January 24, 2017) about whether they are “consultants” to campaigns reveals the degree to which this is a new area of practice at the interface of technology firms and campaigns (and, Facebook argues, is in compliance with applicable laws regarding campaign contributions and independent expenditures):

Patterson : We didn’t give them creative ideas, but kind of helping them get the juice flowing on how they—Harbath: Think things differently.

Patterson : Just think differently about it and also think about different ways to use the tools that maybe they hadn’t seen before, and it’s different for different campaigns, you know.... So, sometimes we’re just here to bounce ideas off, and kind of get them out of the, what’s our e-mail schedule, what’s our digital schedule, you know the mechanics.... Sometimes overtake the fun part, and so we try to introduce some of that creativity and fun back into it....

Harbath : I usually liken it a little bit more to customer service.

Patterson : Mm-hmm [affirmative].

Harbath : But customer service plus might be the best way of doing it. A lot of what we’re doing is answering, like, we’re telling them about new products, and so it’s just stuff they don’t know that are even options. So it’s like giving them, here’s the suite of things that you can do, but then a lot of it, too, is how do I do this? How should I think about that? I’m having this issue—I mean, it could run the gamut of I’m having this bug, I can’t seem to upload a photo, can you help me figure this out, to okay, great, we want to go live, and we want to use the API [application programming interface]. Who do we talk to, how do we figure this out, like, what do we need to do to make this happen, and so then we would start putting them in touch with the right vendors, or give them the tech specs from our side, and figuring that out.

Kreiss : Right. But then also, I guess from where I sit, some of Crystal’s description about like—

Patterson : Yeah.

Kreiss : Helping them get out of the daily routine and think about a photograph differently, like on a platform like Instagram seems—

Harbath : I mean, maybe an advisory role might be a better—

Ross : Best practice. Harbath: ... how to use the product the best way possible.

Ross : Yeah.

Discussion

All of this work that technology firms engage in with campaigns is important because U.S. campaigns, even the most well-funded, are always strapped for time and resources given the monumental task they have of contacting the electorate (Hersh, 2015). As McCain (personal communication, December 21, 2016) put it: “when you have limited resources, then you are trying as hard as you can to make sure everything you’re doing gets you a return and that it leads to the outcomes you have to get: votes and dollars.” Indeed, the findings here accord with the literature on “campaign assemblages” (Nielsen, 2012) and “party networks” (Kreiss, 2016), where many different actors, from consultancies and donors to databases, Super PACs, and social movements, collaborate to achieve the herculean task of engaging voters and shaping electoral outcomes. Taken together, this piece, along with these literatures, reveal the need for political communication scholars to expand their conventional objects of analysis to account for the ways that many different types of actors work together to constitute contemporary political communication and electoral processes.

Even more, there is a consequential shift ushered in by an era of “technology-intensive campaigning” (Kreiss, 2016), where everything that campaigns do has an underlying technological basis in ways that were simply not the case 20 years ago. The cloud data technologies offered by firms such as Microsoft, and the social platforms of Facebook, YouTube, and Twitter, are always changing in terms of their functionalities and affordances, which reflects both their status as profit-making enterprises and the continual development of technology. Technologies change rapidly with little stability (Karpf, 2012), even in the comparatively short span of two years between a midterm and a presidential election. Given this, it is technology firms that can provide valuable continuity in expertise across election cycles that quickly assembled and temporal campaigns can rarely match, even as these firms also provide deep inside knowledge in how to navigate these platforms. Even more, in the United States political parties lack the deep resources of these technology firms (Kreiss, 2016), which means these firms are increasingly the locus of political knowledge and expertise in the context of digital and data campaigning.

What is clear is that political communication scholars need to consider technology, and especially social media, firms as more active agents in political processes than previously appreciated in the literature. This likely has a number of consequences, although future research is both necessary and, we suspect, this field is still rapidly evolving. We break the implications of our findings here into three parts. First, the organizational implications for campaigns. Second, the question of how the rise of platforms might shape political communication in the future. And third, the question of the implications for democracy. We address each in turn, and conclude by considering the limits of the U.S. case and possibilities for future comparative, international work.

First, one thing that we did not anticipate when we began this study is just how much collaboration in the United States takes place behind the scenes between campaigns and technology firms, especially Facebook, Google, and Twitter. Trump’s victory was shocking on a number of levels, but we believe especially for scholars of campaign effects. Trump’s

campaign was woefully behind its general election opponent in every conceivable metric that scholars study—it was a campaign run on a shoestring for much of the cycle, was considerably outspent in television advertising, had significantly fewer field offices, and had much fewer staffers and a shallower pool of expertise than its Democratic rival. Taken together, three decades of political science literature on campaign effects (e.g., Sides & Vavreck, 2014) would have predicted Trump underperforming his challenger on the margins, and especially in swing states that were the objects of so much campaign attention.

Trump utilized the RNC to make up for some of these organizational shortcomings, but Gary Coby, the Director of Advertising at the RNC who orchestrated much of Trump's digital campaign, called a political client solutions manager at Facebook an "MVP" of the campaign (Warzel, 2016). From an organizational perspective, the fact that the RNC itself cited Facebook's important role in the Trump campaign has a number of implications. Foremost among them is the intriguing possibility that in a world where Facebook is both the consultant and the distribution channel, campaigns might not need teams of data scientists or even a robust digital campaign staff more generally because they can outsource these things to technology firms themselves. That said, more research is necessary to clearly determine Facebook's role in President Trump's victory given his surprisingly thin campaign organization.

The second and related question is how the increasing role of technology firms in electoral processes will shape political communication in the future. What are the implications of political communication that might be increasingly outsourced to private, for-profit companies with the far-reaching scope of Facebook or Google? How might campaign communication shift when its content is more controlled by platforms than political practitioners? What is clear in the literature, for instance, is that these firms maintain the platforms for much of digital social life, and thus play an extensive infrastructural role in democratic processes. Technology firms connect audiences and content in increasingly powerful (and personal) ways that place them at the center of digital distribution, enabling them to monetize content and social relations, to which other institutions must adapt (see Nielsen & Ganter, 2017; van Dijck, 2013).

We see a number of potential implications of this. To use the theoretical terms of Plantin and colleagues (2016, p. 3), "digital technologies have made possible the 'platformization' of infrastructure and an 'infrastructuralization' of platforms." As infrastructure, the platforms these firms support are widely (and publicly) accessible and provide the basis of a generally invisible context for everyday sociality, even as these infrastructures, as platforms, are dynamic, competitive, private, and commercialized. These subsequent "infrastructuralized platforms" (Plantin et al., 2016) meld public utility and private power. If the news industry (or possibly even the Trump campaign) offers any foreshadowing, we might be on the precipice of something akin to click-bait campaign ads, where the technological ability and incentive to monetize engagement by *both firms and campaigns* leads to increasingly sensationalized and targeted political communication. Indeed, perhaps some of the innovative digital ad practices chronicled by close observers of the Trump campaign might be ascribed to their lean campaign staff supported by technology firms' services. Sue Halpern (2017) noted, for instance, that despite all the hype around fake news, "Facebook's real influence came from the campaign's strategic and perfectly legal use of Facebook's suite of marketing tools," which the Trump team spent approximately \$70 million on, netting \$250 million in donations. Writing in *Wired*, Lapowsky (2016) argued the following:

On any given day... the campaign was running 40,000 to 50,000 variants of its ads, testing how they performed in different formats, with subtitles and without, and static versus video, among other small differences. On the day of the third presidential debate in October, the team ran 175,000 variations. Coby calls this approach “A/B testing on steroids.”

Finally, there is the question of the normative democratic implications of the growing role of technology firms in electoral politics detailed in this article. The answer to that question is always necessarily colored by what we mean when we say *democracy* in the first place. That said, even without a larger framework of normative democratic theory, which is impossible to explore in any depth here, we see a number of significant implications. The first is simply that the coupling of infrastructures and platforms reveals the ways in which these technology firms are at the center of democratic processes, yet also beholden to market forces. These firms serve as key infrastructures for democracy, providing the spaces for public discussion and contestation of politics. Technology firms hold themselves up as neutral, infrastructural carriers of political content that shun content production or editorial processes. And yet, as platforms, they are not only involved in monetizing content, they also make editorial decisions that further that goal through engaging and growing their user bases, whether they publicly acknowledge it or not (see, for instance, *The Guardian*’s reporting in 2017 on leaked Facebook documents). The row over Facebook’s News Feed in spring of 2016 illustrates this, when the company developed a poorly organized internal editorial process, poorly organized, to curate trending news topics, adding human decision making into a formerly algorithmic process (itself a product of human engineers). In the wake of a controversy over how conservative news items were being systematically devalued, Facebook switched back to its algorithm-only process, and in turn opened the door to the controversy over fake news. As Zeynep Tufekci (2015) has noted, while the contemporary news media in the United States is also made up largely of commercial entities, it is tempered by strong professional journalism ethics. It does not appear that there is any significant counterweight to monetization in the context of technology firms, and this is coupled with a troubling lack of transparency over the ways that social media firms shape contemporary communication and social information flows.

Candidates have been taking their message directly to the people for well over a century, including routing around party institutions (Young, 2016). In our era, the McGovern-Fraser reforms in the early 1970s paved the way for more autonomous candidates and media-centric campaigns in the embrace of popular democratic participation in nominating contests (McAdam & Kloos, 2014). It is likely that the control over distribution among technology, and especially social media, firms will extend these trends, and heighten the ability of politicians to take their message directly to the people; however, it will be on terms increasingly shaped by these firms. Trump was able to consistently draw millions to his Facebook Live channel during the final months of the election, including 7 million for the third debate (during which he raised \$7 million). At the end of the day, however, Facebook controls the functionality of Facebook Live and what campaigns can do with the tool, even as there is little transparency behind the decisions that the company makes beyond the need to continue to appear as a fair broker in the political space. Across our interviews (see also Kreiss et al., 2017), political practitioners expressed a frustration with changes in the algorithms of platforms such as Facebook and Google that suddenly devalued particular forms of content.

That said, these firms’ coupling of programmability and distribution in the media ecosystem does not necessarily have uniform consequences across fields. While Nielsen

and Ganter (2017) detail the loss of control and revenue of news media organizations to digital intermediaries, our findings reveal somewhat different dynamics. In the United States, firms such as Microsoft, Facebook, Google, and Twitter actively seek political business for revenue purposes, as is clear in the extraordinary power of the Trump campaign to convene these companies and their extensive behind-the-scenes work with campaigns to facilitate the adoption and revenue-generating use of their platforms. These facts, coupled with the desire of these firms to influence policymakers for regulatory ends, may provide the political field with greater voice into the workings of these firms. The normative pressure of elected officials, institutional bodies such as Congress, and indeed the President, likely is much stronger than what publishers can muster and may serve as a check against the ability of technology firms to decide the future of political communication. The implications need to be considered in the context of the ends we desire in democratic, market societies. While state accountability over commercial technology firms in Western democracies such as Germany might be desirable from a democratic perspective, the same might not be true in China or even the contemporary United States.

Nor would we expect that these firms' work would look the same across countries. There are a number of avenues for future research; most intriguing among them is for scholarship that analyzes how national political contexts and institutions, regulatory frameworks, and media ecosystems differentially shape the roles that these technology firms (all of which have significant presences in many countries around the world) play in electoral politics given their motivations in terms of sales, marketing, and lobbying. Does Facebook, for instance, institutionally adapt the organizational structures of its country-based political teams to fit with multi-party parliamentary systems? Do these firms play an even greater role in electoral politics for lobbying purposes in countries such as Germany, where they are more heavily regulated? Is there less of a sales incentive for these firms to be involved in electoral politics in countries with smaller markets, more heavily subsidized political communication for parties, more cohesive mass media markets, or less social media use among the public? How do these firms navigate countries such as China, where there is both greater competition from local technology firms and more restrictions on speech and politics than in many other parts of the world?

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Notes

1. Through a donor to the first author's university, these five observers possessed the second highest level of credential, with the ability to sit on the convention floor with the delegates. These observers were only barred from going backstage.
2. Furthermore, Google also has dedicated staffers for nonprofit organizations, governmental organizations, and an issue advocacy team, which includes Super PACs. And, in the domain of electoral politics, these staffers only work with the campaign organizations of candidates, not the official offices of representatives.

3. Henke noted that not every campaign takes Google up on offers such as this, given a combination of factors, such as time and scheduling, and more broadly simply the strategic element that it might not be the best use of resources to spend eight hours with Google's creative teams.

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