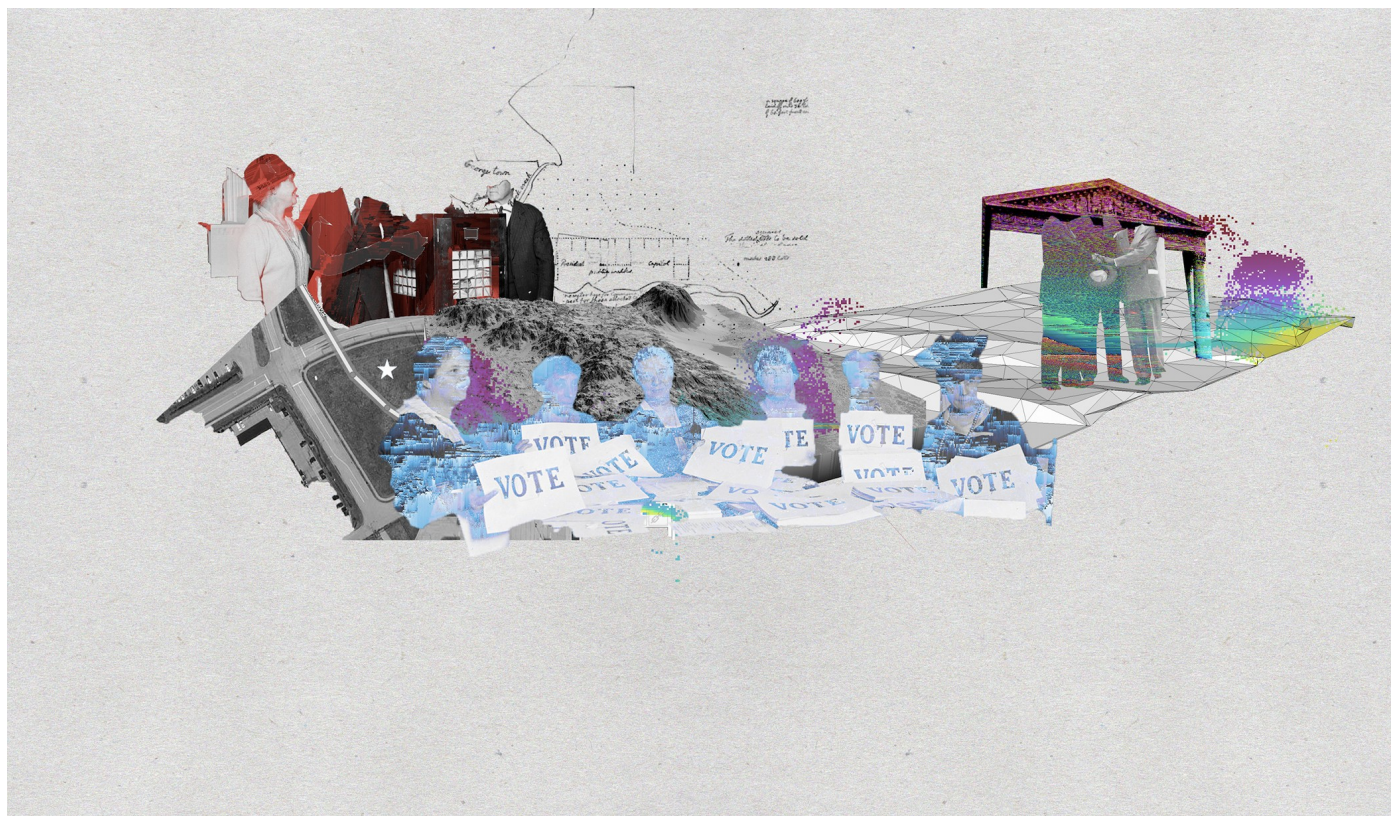


The Influence Industry

Contemporary Digital Politics in the United States

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“Contemporary Digital Politics in the United States”

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Shortly after the 2016 U.S. presidential election, reporters asked Facebook CEO Mark Zuckerberg if his social media platform had played a role in allowing so-called “fake news” to influence voters. His response was dismissive, calling the suggestion “a pretty crazy idea” (Solon 2016). But a little over a year after that remark, a confluence of events has placed the electoral and digital marketing operations of Facebook—and other digital giants—under unprecedented public scrutiny. U.S. intelligence agencies unanimously concurred that Russia had deliberately interfered to influence the outcome of the presidential race in favour of Donald Trump —with Facebook eventually confirming that its own ad system was used to help sow confusion and conflict (Lapowsky 2018). In March 2018, *The Observer* and *The New York Times* broke an explosive story, reporting that a British data firm, Cambridge Analytica, had harvested more than 50 million Facebook profiles and used them to engage in psychometric targeting during the election (Rosenberg, Confessore, and Cadwalladr 2018). Zuckerberg took a number of steps to attempt to quell the rising public outrage, placing a full-page ad in *The New York Times* to apologize for “a breach of trust,” and making a series of announcements about changes in Facebook’s privacy and data policies (Murphy 2018). But by April, Zuckerberg had been called before Congress to answer two days of questioning, and his company was forced to admit that the actual number of users whose personal information had been exposed was 87 million (Kang and Frenkel 2018).

From the beginning of the controversy, Facebook has tried to characterize the incident as an unfortunate aberration, a violation of its terms of agreement involving “malicious actors” who took advantage of the social media platform (Schroepfer 2018). But this is a mischaracterization that obscures the fundamental nature of Facebook’s business model and operations. What happened with Cambridge Analytica and Facebook is, in many ways, the logical outcome of the growing, global commercial digital media and marketing ecosystem that has changed how corporations market

their products and influence consumers, and that is now transforming the ways in which elections are conducted. Although political campaigns have employed digital technologies for more than a decade, developing increasingly sophisticated tools and techniques during each election cycle, the most recent U.S. election marked a critical turning point. In 2016, data-driven digital tools were used by Democratic, Republican, and Libertarian candidates at the federal and state levels, as well as by political action committees and other interest groups. Political campaigns were able to take advantage of an expanding Big Data digital ecosystem—including data brokers, data management platforms, marketing clouds, social media, and measurement companies—enabling them to reach, engage, and “microtarget” individual voters with unprecedented precision.

The expansion of data-driven political campaign practices has already begun to alter relationships among candidates, parties, voters, and the media. Yet, for the most part, these practices are not well understood by the public. In the following pages, we first provide a brief historical overview of the key conditions in the U.S. that contributed to the growth of today’s digital political marketing system. We then highlight the major features and key techniques of digital marketing that have become fully integrated into contemporary politics, with particular focus on how they were deployed during the 2016 U.S. election cycle. In the final section of this report, we explore the implications of this new data-driven political system for democratic discourse, discussing several policy debates currently underway in the wake of the controversial use of data in the past election.¹

The U.S. Context

¹Our research for this report draws from our extensive experience tracking the growth of digital marketing over the past two decades in the U.S. and abroad, monitoring and analysing key technological developments, major trends, practices and players, and assessing the impact of these systems in areas such as health, financial services, retail, and youth. During the 2016 U.S. presidential election, we monitored commercial digital advertising and data use by candidates, parties and special-interest groups across the political spectrum. We collected examples of these ads, along with publicly-available technical and market-impact information from the developers of the applications. We also reviewed trade journals, research reports, and other industry documents, and attended conferences that were focused on digital technologies and politics.

Several factors—many of which are unique to the United States—have created a set of conditions that gave rise to the current digital political marketing system. A privatized, commercialized broadcast and cable media industry enabled and profited from political advertising, which has generated hefty revenues for the industry over the years. Cultural and policy traditions have left government largely removed from regulating how campaigns conduct their communication efforts. As the birthplace of today’s global technology industry, the country’s *laissez faire*, hands-off approach to government regulation created particularly fertile ground for start-up companies to grow into massive global corporations, unfettered by regulatory constraints or public accountability. A business model from the outset based on “one-to-one marketing” fuelled the expansion of a highly profitable system that has relied on monetization of personal user data.

To understand fully how these factors brought us to where we are now, it is important to focus more closely on four major, intersecting trends: 1) the rise of political advertising in the U.S.; 2) the increasing use of technology in political campaigns; 3) the growth and maturation of digital marketing; and 4) the expansion of the advertising technology industry into the political arena.

Rise of political advertising

U.S. political parties and candidates have used various forms of advertising to influence voters as far back as the 19th century. But it was not until the emergence of broadcasting, and particularly the advent of television, that advertising began to play such a central and powerful role in elections. Beginning in the 1950s, political parties allied with the growing television advertising industry to develop TV ad campaigns designed to “package” and “sell” candidates to the American public (Diamond and Bates 1998; Jamieson 1996; McGinnis 1968). In the process, advertising has gradually become an increasingly powerful and pervasive presence in U.S. political campaigns, with a growing cadre of ad agencies, public relations firms, and consultants perfecting the use of opinion polls, focus groups, and psychological research in order to reach and influence voters through radio, television, direct mail,

and other media outlets (Jamieson, A. 2016; Jamieson, K. H. 1996; Sabato, 1981).

In contrast to many other countries in the world, the U.S. has established very few limits on the amount, time, placement, and type of advertising allowed in its political campaigns. The combination of lengthy primary seasons, fierce contests among multiple candidates seeking a party's nomination, the increasingly central role of *ad hominem* negative advertising, and the powerful influence of political action committees (PACs) and other, so-called independent groups have all combined to create an "anything goes" political culture fuelled by enormous amounts of money during every election cycle (Holtz-Bacha 2017). In 2016, \$6.5 billion was spent on presidential and congressional contests, with the battle for the White House alone at around \$2.4 billion (Sultan 2017).

While the U.S. has some laws regulating the use of money in political campaigns, they have had little impact on prevailing practices. The Federal Election Commission (FEC), which is the agency charged with formulating, implementing, and enforcing these laws, is weak and ineffective. Established in 1975 in the wake of the Watergate scandal, it has jurisdiction over how political candidates, parties, and committees raise, spend, and disclose their income and expenditures. However the agency suffers from political polarization, lack of sufficient funding, and an inherent structure that produces consistent regulatory paralysis. In the landmark 2010 decision, *Citizens United v. Federal Election Commission*, the Supreme Court ruled that the government could not restrict the amount of money that for-profit corporations, non-profit groups, labour unions, or associations could spend in elections ("Citizens United v. Federal Election Commission" n.d.). This decision has unleashed a flood of money into elections, expanding the power and influence of political advertising, and exacerbating the problem of lack of transparency and accountability (Levinthal 2016).

Over the years, even amid growing public concerns about the proliferation of highly negative ads, rampant misrepresentation of facts, and the increasingly corruptive influence of money in politics, attempts to regulate political advertising have largely been unsuccessful. As a consequence,

candidates, political parties, and issue groups have had generally free rein to conduct their efforts without any significant regulatory constraints. Political advertising has become an increasingly profitable business (Kaye 2017-a).

Technology and political campaigns

Beginning with the 2000 presidential election, political parties and candidates began to use the internet to mobilize voter turnout, engage young people, raise money, and support grassroots ground operations (Karpf 2016; Kreiss 2016, 3-4). Many observers initially hoped that this new technology would free politics from its reliance on advertising, enabling candidates to speak directly to voters, and reducing the need to buy access through media gatekeepers (Cornfield and Ranie 2006; Benkler 2007). Most of the earliest uses of the internet, in fact were primarily for purposes other than advertising. In 2000, digital political advertising was in a nascent stage of development, restricted to banner ads placed on websites, including on AOL (Barnard and Kreiss 2013). However, as the technology industry grew, developing and refining an expanding set of services and techniques for advertising, digital marketing has worked its way into the centre of American political campaigns (Tufekci 2014).

The 2004 election cycle marked a major shift, as political campaigns began to innovate in their use of digital technologies, embracing and exploring various forms of digital advertising. The presidential primary campaign of Governor Howard Dean (D-VT), played a pioneering role in developing and employing internet-based strategies and tactics. Campaign organizers encouraged voters to use the website “Meetup” to find local “Deaniacs” in their own hometowns, and created software to augment this online resource, including “get local” tools to enable people to enter a postal zip code and find the closest Dean meeting (Murray 2004). Although Dean’s use of digital technology predated the rise of Facebook, his campaign’s overall approach, and many of the techniques it used, were precursors of the data-driven social media practices in use today. For example, the campaign launched its own “DeanLink” software, modelled on the then-popular social networking website, Friendster, to give “Dean supporters the chance to meet

others like themselves.” DeanLink made it possible to keep track of the people with the largest social networks, encouraging them to enlist their friends in the political effort. The campaign also made full use of blogs, which were already playing a prominent role in campaign politics. Through the viral marketing power of the internet, bloggers were encouraged to “write about the campaign every day, quickly spreading the word online, offering commentary, and sometimes second guessing campaign strategy” (Trippi 2004). The Dean campaign also introduced a number of innovations in online advertising, developing a Google advertising program and experimenting with online search and banner advertisements (Barnard and Kreiss 2013). Though Howard Dean failed to win his party’s nomination, his highly visible campaign generated widespread recognition for its innovative deployment of internet-based strategies (Trippi 2004).

The role of digital advertising was even more prominent in the 2004 general election, particularly with the campaign of Democratic candidate John Kerry, which worked with a large direct-mail firm to develop an extensive online advertising program. The campaign created more than 100 different ads and tested them in various venues, through the use of online metrics that tracked “impressions, click-throughs, and donations.” This testing enabled the campaign to engage in “persuasion advertising,” buying ads on major national news sites in 16 battleground states (Barnard and Kreiss 2013). Like Dean, Kerry did not win the election. However, his campaign’s operations laid the groundwork for increasingly sophisticated uses of digital platforms by subsequent candidates.

The successful 2008 presidential campaign of Barack Obama not only fully embraced technology, but also established its own in-house new-media division to create and implement a complex and elaborate set of digital operations. Online advertising was a critical part of the campaign’s efforts (Barnard and Kreiss 2013). The Obama campaign took advantage of the increasingly sophisticated Big Data analytics and targeting tools available in the growing digital marketplace, employing many of the digital strategies and tactics that would characterize campaign efforts by candidates of both parties in subsequent elections. Obama’s digital campaign operations were focused

on three major objectives: building a robust base of supporters; mobilizing these individuals; and engaging in persuasion efforts, which accounted for the largest portion of the advertising expenditures online. “The key to a successful outcome from all these activities,” explain Lisa Barnard and Daniel Kreiss (2013), “was mobilizing only those individuals likely to support Obama.” To identify who these individuals were, the campaign worked with outside consultants to develop detailed models of targeted voters and to marry the public voter files—which included party registration, voting history, political donations, demographics, vehicle registration and real estate records—with commercial databases that supplied additional information such as magazine subscription records, credit histories, and even retail purchases. Campaign staffers were then able to use this highly detailed information to target voters in each battleground state, with particular focus on youth, African Americans, and Latinos. The campaign made use of mobile and geolocation targeting, and purchased ads on Facebook. Though Facebook was still in its early years, with only a fraction of the more than 2 billion users it has today, it was already a successful advertising vehicle in 2008, providing a “wealth of new ways to target groups of voters” based on the information on their profile pages, as well as on behavioural and other data tracked routinely by the social media platform (Barnard and Kreiss 2013).

In the 2012 election cycle, candidates from both the Democratic and Republican parties were employing a full array of digital advertising and targeting practices, though the Obama campaign demonstrated a competitive advantage over his Republican rival, Mitt Romney, in the use of data analytics. By this time, however, many of the digital techniques that would later characterize the 2016 campaign were already in use (Issenberg 2016). Among the key trends that distinguished online advertising during the 2012 election cycle, according to Barnard and Kreiss (2013), were “increased sophistication of voter targeting and a rise in use of social media, online video, and mobile technologies by campaigns.” While much less than what was spent on television, online advertising expenditures were increasing significantly, due in part to overall declines in consumption of live television, “high pricing for television ad buys, and improved online targeting.” In 2012, digital ad

expenditures for elections totalled \$159 million. By 2016, it grew 789 percent to \$1.4 billion (Kaye 2017-a).

From Howard Dean's use of websites, blogs, and online meet-up tools during the 2004 Democratic primary, to Barack Obama's expansive digital re-election operations in the 2012, campaigns functioned as crucibles for innovation and experimentation. By the beginning of the 2016 election cycle (which is discussed in more detail below), both major political parties in the U.S. had developed large, sophisticated data operations. As Daniel Kreiss (2016) explains in his book, *Prototype Politics*, "contemporary campaigning has entered a new technology-intensive era where parties and campaigns have invested considerable resources in technology, digital media, data, and analytics to not only keep pace with these changes, but also actively shape technological contexts and define what twenty-first century citizenship looks like" (Kreiss 2016, 3-4).

Growth and maturation of digital marketing

The new digital strategies, tools, and techniques employed in the 2016 election were initially developed, deployed, tested, and refined by the commercial sector (Tufekci 2014). Since its origins in the mid-1990s, digital marketing has operated with a core business model that relies on continuous data collection and monitoring of individual online behaviour patterns (Chester 2008; Montgomery 2011; Turow 2017). This system emerged in the U.S. amid a political culture of minimal government interference with the internet and new technologies. In the earliest days of the "dot-com boom," a strong political alliance was forged between the digital media companies and their partners in the advertising and media business, enabling the nascent industry to ward off any attempts to restrain its business operations through privacy regulation or other public policies. As a consequence, the advertising industry played a central role in shaping the operations of platforms and applications in the digital media ecosystem. Digital marketing is now well established and thriving, with expenditures in 2017 reaching nearly \$85 billion for the U.S. alone, and worldwide spending at more than \$209 billion (Kafka and Molla 2017; Slefo 2017).

Ongoing innovations over the years have increased the capacity of digital marketing applications. With the growing penetration of mobile devices and the further extension of digital technologies into the retail marketplace, commercial marketers can find and target a consumer wherever she goes, following her “shopper journey” and delivering messages at precise “micro-moments” when she is deemed most susceptible to influence (Google 2018; Learmonth 2014; Pearson 2017; Yu 2016). New types of digital advertising and marketing are being developed and implemented with the goal of bypassing rational decision making in order to influence consumer emotions and behaviours more effectively. For example, so-called “native advertising”—a data-driven ad format in which brand images and advertising are seamlessly woven into a website, mobile app, or social media—has become a highly popular and successful way of engaging individuals with personalized and entertaining content that is not perceived as advertising (Arnstein 2017). Advertising is also becoming more immersive, through the use of digital video, virtual reality, and gaming technologies. The industry is constantly testing all of these new tools, taking advantage of recent advances in psychology and neuroscience to maximize their impacts (Murphy 2015; Nielsen n.d.). Many of these new forms of digital advertising are migrating to television, which is no longer a mass medium, but a highly personal one through which individuals can be identified and targeted using “addressable” technologies.

Social media, online video and mobile platforms are at the centre of digital media’s growing commercial power, as is clearly evidenced by Facebook’s meteoric rise and the significant ad revenues generated for Google by YouTube (Goel 2014; Reuters 2017). Facebook and other social media platforms were initially promoted as tools designed primarily to serve the interests of users and their networks through information dissemination (posts, news feeds, and the like). But economic imperatives and profitable business models fuelled the rapid growth of these platforms, shaping their structures and operations, and both responding to and influencing user behaviours (Montgomery 2015; van Dijck 2013). Because of the unique role that social media play in users’ lives, these platforms are able to sweep up

enormous amounts of information, including not only what users post about themselves, but also what is collected from them throughout their daily social interactions (Smith 2014). The driving force behind the financial success of social media—and, indeed, all digital media—is a complex set of data collection, tracking, and targeting systems that monitor and monetize individual users’ behaviours as well as their interactions with friends and acquaintances (Montgomery 2015).

With the growing influence of Big Data, social media platforms are now part of an evolving integrated, ubiquitous media environment, where content, culture, and commerce are highly interconnected, reaching and engaging users across the Web, on mobile devices, and in the real world (Turow 2013). Predictive analytics introduced an expanded set of tools for scoring, rating, and categorizing individuals and groups, based on an increasingly granular set of behavioural, demographic, and psychographic data (“What is Predictive Intelligence” 2017). Advances in artificial intelligence research, and the growing sophistication of machines that can perform high-level thought and abstractions, have produced an expanding arsenal of analytic tools that enhance the ability of digital media companies and their advertisers to glean valuable insights from the oceans of data they generate (Smith 2014). Vast amounts of user data are now regularly mined and stored in behavioural targeting warehouses and other databases—and used in an instant to update online-targeting profiles (Forrester 2017). The entire digital media enterprise has been designed to facilitate and maximize user interaction with brand promotion and marketing, and to enable continuous monitoring and analysis of all of these interactions in real time.

U.S. digital marketers have helped popularize and spur the successful adoption of digital advertising platforms and applications in nearly every geographical location with an internet connection or a link to a mobile device around the world. All of these developments have created what some observers have called a new “surveillance economy” (Singer 2012).

Expansion of ad tech into politics

Although the advertising industry has developed a close, longstanding relationship with political parties and campaigns over the years, the last few years have witnessed extensive consolidation of powerful ad agencies and technology companies, new partnerships and alliances, and further integration of the commercial and political ad sectors (Miller 2016). The advertising technology industry has been expanding its services into the political market, developing new subsidiaries dedicated to political data targeting. These new players are becoming increasingly central to political campaign operations. For example, Semcasting (n.d.), which specializes in “IP” targeting, launched a “Political Data Suite” in 2016. Drawbridge (n.d.), another ad-tech company, offered an election and political campaigns “playbook.” Global ad giant WPP launched Xaxis in 2011, billing it as “the world's largest database of unique individual profiles,” and extending the service into political advertising in 2015 (Edwards 2011; Wilens 2015).

The major social media platforms and search engines—principally Facebook and Google—now play a central role in political operations, becoming even more critical and important during the most recent election (“Google and Facebook Build Digital Ad Duopoly” 2017). Both companies serve the interests of political campaigns, offering a full spectrum of commercial digital marketing tools and techniques. Google, Facebook, and other major players in the digital marketing industry have also developed a global research infrastructure to allow them, and especially their major advertising clients, to continuously make improvements and measure their success reaching and influencing the public (IAB Europe 2017). Not surprisingly, these companies have also made generating revenues from political campaigns an important “vertical” category within their ad business (Stanford 2016). Both Google and Facebook employ teams of internal staff aligned with each of the major political parties to provide technical assistance and other services to candidates and their campaigns. (See Sidebar, “Embedded Experts.”)

All of these developments have significantly enhanced the capacities of political campaigns to identify, reach, and interact with individual voters. The growth and maturation of online marketing in the first decade of the twenty-

first century paved the way for a new generation of digital political advertising that has become steadily more important to parties and candidates in the last several election cycles. As media scholar Zeynep Tufekci (2014) explains, through the practice of “computational politics,” political campaigns are increasingly “applying computational methods to large datasets derived from online and off-line data sources for conducting outreach, persuasion and mobilization in the service of electing, furthering or opposing a candidate, a policy or legislation.”

Below we discuss this new digital political marketing system in more detail, highlighting its most important features and techniques, and providing illustrations of how they were employed by political campaigns during the 2016 election.

Digital Political Marketing in the 2016 Campaign

During the final, few weeks leading up to Election Day, *Bloomberg Businessweek* published an in-depth article entitled “Inside the Trump Bunker, With Days to Go.” Journalists Joshua Green and Sasha Issenberg (2016) embedded themselves within the San Antonio, Texas-based digital operation, which was headed by Brad Parscale, a digital marketing professional with little experience in political campaigns. Parscale described how the campaign used data analytics and targeting systems to send personalized messages through social media and other digital platforms to millions of individual voters in the so-called “battleground states.” “I always wonder why people in politics act like this stuff is so mystical,” he quipped. “It’s the same s---- we use in commercial, just has fancier names” (Green and Issenberg 2016).

In the wake of the surprising election results, journalists, scholars, and critics have probed the inner workings of the Trump digital campaign, raising many concerns about the manipulation of voters through “bots,” “dark posts,” and “psychometric targeting” (Cadwalladr 2017; Halpern 2017; Winston 2016-a). But while many of the online operations associated with the Trump campaign may have crossed ethical boundaries, its overall digital strategy, along with most of the techniques it used, are emblematic of the increasingly

central role that contemporary data analytics and digital marketing are playing in campaigns and elections across the political spectrum.

We have identified six major features that characterize how contemporary political campaigns use the tools and techniques of Big Data and digital marketing to reach, engage, and influence U.S. voters. Some of the strategies and techniques we describe below are extensions of longstanding political campaign practices that have been retooled and amplified through the use of digital technology, often with more powerful and far-reaching impacts than their earlier counterparts. Others represent departures from established political practices, many of which have been imported directly from the commercial sector and adapted for use in campaigns and elections. While we discuss each of these features separately, they are interrelated and sometimes overlap. The best way to understand them is as a system that, taken together, constitutes a significant change in how campaigns interact with voters in the Digital Age. Throughout our discussion, we highlight a growing spectrum of speciality firms, software providers, advertising technology companies, and data services that, while not well known outside of the tech sector, have become key players in contemporary politics as it continues to converge with commercial marketing and advertising. The biggest and most familiar technology companies—Google and Facebook—serve as powerful hubs for many of today’s Big Data, political targeting operations, offering not only targeting and ad tools to campaigns but also expertise and strategic assistance. (See Sidebar, “Google and Facebook, 2016.”)

Digital dossiers: data mining, profiling, and “cloning” the citizenry

For years, political campaigns have been able to combine public voter files with commercial data information from brokers in order to develop detailed and comprehensive dossiers on all American voters (Rubinstein 2014). With recent advances in the advertising technology and data industries, these campaigns can now take advantage of a growing infrastructure from both the commercial and political marketing sectors that offers more extensive resources for data mining and targeting voters.

Among the new entities are data marketing clouds. Developed by well-known companies such as Oracle, Salesforce, and Nielsen, these platforms sell political data along with an exhaustive amount of detailed consumer information for each potential target, including, for example, past purchases, personal interests, and media consumption patterns. Salesforce's (2017) "third party marketplace" includes L2, which is billed as the "country's largest non-partisan processor and provider of enhanced registered voter data." Salesforce cloud clients can also find political data products from many of its other partners, including Acxiom, Audience Partners, Alliant, Analytics IQ, Nielsen's eXelate, i360, Infogroup, Gfk MRI, Gravy Analytics, Decimal, Factual, TruSignal and others. Oracle's (n.d.) data cloud offers its clients an abundance of political targeting data.

Political parties have expanded the scope of their own data operations. As scholar Colin Bennett (2016) has noted, political parties in the U.S. and elsewhere have operated their own form of DMPs—"voter management platforms." NPG Van, for example, is the Democratic party's "voter data management platform" with "over 200 powerful integrations with third party tools" (Kaye 2016-b; Regan 2016; Winikates 2017). In 2016, the Republican National Committee's Data Trust, which includes voter history information, announced partnerships with Google, Facebook and a number of other well-known companies. The goal was to enable "right-leaning organizations to go directly to those companies and target video, display, mobile and social ads using the RNC data managed by Data Trust." According to the then-president of Data Trust, John DeStefano, "This is the first time that the foundational data and the millions and millions of historical data points has been so readily accessible." The RNC, according to one report, "would ultimately acquire roughly 9.5 billion data points regarding three out of every five Americans, scoring 198 million potential US voters on their likely political preferences using advanced algorithmic modelling across forty-eight different categories" (O'Sullivan 2017). This followed the Democratic National Committee's announcement in 2015 of its "Voter 2.0" initiative to target perspective voters on Facebook and many other sites via partnerships with consumer information company Experian and political data firm TargetSmart Communications. The

goal was to use voter files to target individuals using video ads across devices (Kaye 2015-b).

The use of Big Data analytics also enables marketers to acquire information about an individual without directly observing behaviour or obtaining consent. They do this by “cloning” their “most valuable customers” through what is known in the industry as “lookalike modelling.” Its goal is to identify and target other prospective individuals for marketing purposes (Zaman 2015). The following is an explanation of the practice from eXelate (2014), a data-marketing company owned by Nielsen:

Lookalike modelling is a process that draws on advertisers’ understanding of what the online behaviour of their best customers entails. Once these characteristics are identified, third-party data providers then match these profiles or “personas” with likely effective, prospective audience data sets leveraged from pools of modelling data available online. Marketers can then approach these prospects with relevant digital messaging that achieves better reach and retargeting.

Stirista (n.d.-a-b-c), a digital marketing firm that also serves the political world, offers lookalike modelling to identify people who are potential supporters and voters. The company claims it has matched 155 million voters to their “email addresses, online cookies, and social handles,” as well as “culture, religion, interests, political positions and hundreds of other data points to create rich, detailed voter profiles.” Facebook offers a range of lookalike modelling tools through its “Lookalike Audiences” ad platform. The Trump campaign was among those political operations that took advantage of this platform during the 2016 election cycle (Winston 2016-a).

Geotargeting and geofencing through mobile

Mobile devices continually send signals that enable advertisers (and others) to take advantage of an individual’s location—through the phone’s GPS (global positioning system), Wi-Fi, and Bluetooth communications. All of this can be done with increasing speed and efficiency. Online marketers have determined that, on average, people check their phones 150 times a day, and that 87 percent have such devices with them all day long, even while they sleep (Ryan 2015). Through a host of new location-targeting technologies, consumers can now be identified and targeted wherever they go, while

driving a car, pulling into a mall, or shopping in a store (“The Difference Engine” 2011; Son, Kim, and Shmatikov 2016). A complex and growing infrastructure of geolocation-based data-marketing services has emerged, with specialized mobile-data firms, machine-learning technologies, measurement companies, and new technical standards to facilitate on-the-go targeting (Warrington 2015). Google and Facebook, which know the actual (“authenticated”) identity of their consumers, have expanded their use of location for ad targeting.

An entire industry has been developed to identify the characteristics of the places people visit—called “place data”—generating new insights to help companies zero in on their prospects (Placed n.d.). Place data can include the characteristics of a particular neighbourhood, such as its ethnic/racial mix and income level, along with customer information from loyalty programs and online tracking. Neighbourhoods and communities across the country have been digitally “sliced and diced” through the use of mapping and database software, creating geo-data-rich profiles. As consumers enter specific areas they can pass through a “geofence”—an invisible online perimeter that triggers ads and coupons to be delivered via mobile devices. The growing dominance of mobile devices, including the use of apps, has unleashed a flood of continuous “hyper-local” geo-data about where we go, when, and what we do once we arrive at a particular location.

The use of mobile targeting techniques and applications played a central role in the 2016 election cycle, with a growing number of specialists offering their services to campaign operatives. For example, L2 made its voter file, along with HaystaqDNA modelling data, available for mobile device targeting, offering granular profile data on voters, based on their interest in such contested topics as Gun Laws, Gay Marriage, Voter Fraud, and School Choice, among others. Through “mobile device ID targeting,” the company explained to its clients, you can “directly place your ad into apps or mobile browsers.” Working with mobile marketing partner Sabio, L2 (n.d.) offered campaigns access to an expansive array of digital outlets, including “19 ad exchanges, 5.3 million apps, and millions of mobile Web sites.” Geotargeting company Factual worked with another data marketer to offer

its “Geopulse” services, which included “custom” maps “to enable precise targeting based on users’ voting districts.” Mobile ads could be sent to prospects while they were using apps or attending campaign events, and could be filtered by issue and voter interest (Yatrakis 2016). Drawbridge (2016) offered campaigns the ability to engage in Zip+4 targeting and also set up geofences. Smaller campaigns in 2016 were reported to rely on this approach, given its more moderate costs (Drawbridge n.d.). Through its use of a mobile data system called Revere Mobile, the Bernie Sanders campaign was able to generate donations by text, generate lists of supporters, and help orchestrate campaign activities (Revolution Messaging 2016).

Tracking individuals across devices through the “identity graph”

DMPs, digital platforms, data brokers, and advertising technology companies have developed a number of ways to determine who a person is, online and offline. Getting a complete picture of a person’s persistent “identity” through an “identity-graph” has become a key strategy for successfully reaching consumers across their “omnichannel” experience (use of mobile, TV, streaming devices, etc.) (Winterberry Group 2016). So-called omnichannel or “cross-device” targeting is necessary today in order to meet the challenge posed by the dominance of mobile phones as the key online device. Through a process of “cross-device recognition,” marketers can determine if the same person who is on a social network is also using a personal computer and later watching video on a mobile phone.

Through data “onboarding,” a customer record that may contain a physical and email address is linked through various matching processes, associating it with what is believed to be that individual’s online identification—cookies, IP addresses, and other persistent identifiers (Levine 2016-c). Data broker Acxiom’s LiveRamp division, which now works on political campaigns and is a leader in the development and sale of identity-based products and onboarding services, claims it can gather thousands of discrete “signals” on individual consumers or voters in order to create highly personalized microtargeting segments. Its “data store” is an “identity-based commercial enablement layer” that helps political and other campaigns enhance their own

information in order to identify and target individuals based on their data profiles.

Cross-device targeting is now a standard procedure for political initiatives and other campaigns. Voter files are uploaded into the onboarding process, enabling the campaigns to find their targets on mobile devices and at specific times when they may be more receptive to a message. Such granularity of information also enables a more tailored advertisement—so-called “dynamic creative”—which can be changed over time to “deliver very specific messaging to very small groups” (Schuster 2015). Revolution Messaging, which worked for Bernie Sanders in 2016, used LiveRamp to onboard the membership records of a “large state education association” so the list could be matched to the “desktop and mobile devices at the individual and household level.” The goal was to enable geo-based “precision ad targeting” campaigns that reached members when they were on Facebook, at their PC, on their mobile device or watching online video (Kaye 2016-a). Democratic data group TargetSmart relies on the cross-device (TV, online, mobile, email, etc.) “Audience Engine” platform” recently developed by leading data broker Experian. Promising to deliver “real people,” Experian provides information about age, gender, marital status, occupation, income, and education, along with “predictive insights” from its Mosaic segmentation database, which has “more than 300 data factors to classify the makeup of Americans.” TargetSmart also relies on Experian for such services as its “Voter File 2.0,” which incorporates voter files and predictive modelling to target individuals and households in a “device-agnostic way.” As its promotional materials explain, “Voter File 2.0 offers one-to-one matching with 20 of the world’s largest media providers, including Facebook, Google, Yahoo, MSN, Verizon, AOL, & Comcast” (Levine 2016-a-b).

Using automated advertising to identify and microtarget individual voters

The 2016 election saw the rise and widespread adoption of “programmatic advertising,” which became a key tool for microtargeting—identifying, reaching, and engaging individual voters. Programmatic

advertising refers to new automated forms of ad buying and placement on digital media using computer programs (thus “programmatic”) and algorithmic processes to find and target a customer wherever she goes. The process can also involve real-time “auctions” that occur in milliseconds in order to “show an ad to a specific customer, in a specific context” (Allen 2016).

The use of programmatic advertising was one of the major changes in political campaign digital operations between 2012 and 2016—“the first time in American History,” according to a leading ad-targeting company, “that such precise targeting has ever been made available at such great scale” (Briscoe 2017; Kaye 2015-a; Patterson 2016). As one marketer explained, “In the past, simple microtargeting models looked at race, age, income and a handful of other variables to try to predict voting behavior. But in the past decade, the sheer amount of data available to campaigns, combined with significant improvements in computing power and a renewed interest and focus on predictive models, has enabled campaigns to unearth new prospective supporters and conduct targeted outreach to those voters” (Pasi 2016). Candidates were able to use the services of a growing list of programmatic ad companies, including Google, Rubicon, AOL, PubMatic, AppNexus and Criteo, that offer programmatic advertising platforms (Kaye 2015-a; Sherb 2015; Yatrakis 2016). Individual voters were sold through several different mechanisms, including private deals made with publishers and “open exchanges” where anyone could bid. Leading political marketing companies, such as Target Victory and DSPolitical, offered “self-service” programmatic buying services that allowed ad campaigns to have more direct access to individuals, deciding when and where to target them (IAB 2016-b; Leahey 2016). Another firm, L2—a key source for “enhanced voter, consumer and modelled issue data”—partnered with Acxiom’s LiveRamp to further integrate with third-party sources, making this information available via many of the most well-known programmatic targeters. A company called The Trade Desk employed “proprietary targeting algorithms” that promised political groups greater efficiency and effectiveness in engaging with supporters and avoiding “unlikely voters” (Trade Desk n.d). Republican data firm Data Trust worked

with leading programmatic ad company Rocket Fuel (2016) to take advantage of its “moment scoring” application, which uses “artificial intelligence and massive big data architecture to identify influential moments, regardless of channel or device.” The application promised political marketers that they could “distribute spend accordingly to the highest performing opportunities and reach voters at their most receptive moments of influence.”

Personalizing TV ads

Television advertising, which remains a linchpin of political campaign strategy, is undergoing a major transformation, as digital technologies and “addressable” set-top boxes have changed cable and broadcast TV into powerful microtargeting machines, increasingly capable of delivering the same kinds of granular, personalized advertising messages to individual voters that have become the hallmark of online marketing. Political campaigns are in the forefront of using set-top box “second-to-second viewing data,” amplified with other data sources, to deliver more precise ads. “In 2012, only Obama used political segments paired with TV data, but now everyone does that,” explained Carol Davidsen, vice president of political technology at comScore (who served as the 2012 Obama campaign’s director of integration and media analytics) (Leahey 2016). In 2016, for example, Data Trust, which has developed “a Republican and conservative data ecosystem,” partnered with cable industry-allied data company FourthWall Media to merge its 190 million American voter datasets with the latter’s real-time viewer behaviour data. Deals between TV data viewing companies and organizations representing both Republican- and Democratic-leaning groups brought the “targeting capabilities of online advertising to TV ad buys ... bringing what was once accessible only to large statewide or national campaigns to smaller, down-ballot candidates,” explained *Ad Age* (Delgado 2016; Kaye 2017-b).

comScore (n.d.), which acquired set-top data company Rentrak in 2016, offered its own political product to campaigns. “By matching real voter registration files with actual viewing information from millions of TVs at the household level,” the company promised, “comScore helps political advertisers—from the most conservative to the most liberal—build more

powerful advertising strategies, buy television advertising time with precision and more effectively reach their ideal viewers.” Media measurement company Nielsen has a division called “Political Solutions,” which provides “voter ratings” that marry voter data with “Nielsen TV, Audio, TV/Digital panels” and information on “party affiliation, voting behaviour or political issues.” Voter registration data is also matched with other data analytics tools, including its Prizm segmentation service and Experian Simmons PoliticalPersonas. The Trump campaign worked with Deep Root Analytics for its targeting of TV viewers through the use an array of segmentation and other data tools.

Emotion-based targeting: Using psychology and neuroscience to influence the electorate

Psychographics, mood measurement, and emotional testing have been used by advertisers for many decades, and have also been a core strategy in political campaign advertising (Key 1974; Packard 2007; Schiller, 1975). The digital advertising industry has developed these tools even further, taking advantage of advances in neuroscience, cognitive computing, data analytics, behavioural tracking, and other recent developments (Crupi 2015; Nielsen 2011). Granular-based messages that trigger a range of emotional and subconscious responses, to better “engage” with individuals and deepen relationships with commercial brands, have become part of the DNA of digital advertising. “You want to align the emotion of the moment with the tenor of the ad to create a natural connection,” explained WPP’s programmatic data ad targeting subsidiary Xaxis (McEleny 2016). Facebook, Nielsen, and most leading brands use neuromarketing services worldwide, which utilize neuroscience tools to determine the emotional impact of advertising messages. There is also a growing field of “Emotion Analytics,” recently promoted by Google, which takes advantage of “new types of data and new tracking methods” to help advertisers “understand the impact of campaigns—and their individual assets—on an emotional level....” (Kelshaw 2017).

Such strategies and techniques, which have become commonplace in the advertising industry, have from time to time generated controversy, especially when otherwise clandestine practices are exposed to the public. For

example, Facebook found itself embroiled in controversy in 2017, when it was revealed that researchers working with the company had gathered and analysed the “mood shifts” and emotions of teenagers in order to assist potential advertisers by stealthily observing the young peoples’ behaviours and actions (Levin 2017).

Political operatives in the 2016 election cycle took full advantage of the latest psychological tools to promote their candidates. One of the most well publicized and controversial players was Cambridge Analytica (CA), a prominent data analytics and behavioural communications firm credited with helping Donald Trump win the election. CA has become the subject of much scrutiny and debate over many of its techniques, including the use of data analytics and psychometric modelling. As its CEO, Alexander Dix, explained to the *Washington Post*, the key to its success was the use of a “five-factor personality model” aimed at determining “the personality of every single adult in the United States of America” (Albright 2016; Grassegger and Krogerus 2017; Karpf 2016; Kranish 2016; Schechter 2017). Labelled OCEAN, the model rated individuals based on five key traits: openness, conscientiousness, extroversion, agreeableness, and neuroticism. In an industry presentation, Dix (2016) described the three major components that make up CA’s approach to targeting the electorate: “Behavioural Science, Data Science and Addressable Ad Tech.” “Big Data,” he explained, should also be viewed in three dimensions. It includes a mix of what he described as “Factual” information, including age, gender, ethnicity, religion, education, income, socio-economic status; “Attitudinal” (psychographic) data, including information on lifestyle, buying patterns, political engagement, and other “consumer” data; along with “Personality” (behavioural) assessments that incorporated the OCEAN scale and ways to define how a person reacts to “persuasion”—including one’s relationship to fear, authority, etc. At the foundation of Dix’s Big Data formulation were the digital data, voter history, and marketing resources from leading companies, including Acxiom, Experian, Nielsen, GOP firm Data Trust, Aristotle, L2, Infogroup, and Facebook. From these sources, the firm was able to develop an “internal database with thousands of data points per person.” The research also identified key segments that were considered

“persuadable,” and shaped the advertising content placed “across multiple digital channels” (with the most effective ads also appearing on television) (Cambridge Analytica 2017). The strategy was based on developing messages that were tailored to the vulnerabilities of individual voters. As Dix explained, in order to target a “highly neurotic and conscientious audience,” for example, the campaign would need a message that “is rational and fear based or emotionally based” (Davies 2015; Dix 2016; Schwartz 2017).

CA’s work was sufficiently convincing to the leading advertising industry research organization, ARF, that it honoured the firm with a “Gold” award in 2017 under its “Big Data” category, highlighting its work in identifying “an unexpected group of undecided Democratic women” who were then targeted with video ads by a political action committee (with funding from CA backer Robert Mercer) to support the Trump campaign (Bennett, B. 2018; Cambridge Analytica 2017).

The tools and techniques employed by Cambridge Analytica are part of a broad trend toward emotion-based targeting throughout the commercial industry. For example, IBM’s (n.d.) Watson, known for computerized artificial intelligence winning at chess, incorporates the OCEAN, Big 5 personality model, to generate “detailed personality portraits,” helping clients “understand ... customers’ habits and preferences on an individual level, and at scale.” Leading ad firm Mediacom uses data to generate “consumer-optimized” models it calls BEM—“Behaviours, Emotions and Moments” (Brennan 2017)

Discussion

We have only been able to provide a brief overview of the key features and functionalities of this new digital political microtargeting system, along with a handful of examples of how presidential campaigns employed them during the 2016 election cycle. However, it is important to understand that the entire system has been embraced by all major players in U.S. campaigns and elections and is increasingly state-of-the-art for contemporary political operations, not only by candidates, but also by issue-advocacy groups, corporations, and other players. Digital media technologies have made

important positive contributions to the vibrancy of the political sphere, including greatly expanding sources of news and information, significantly increasing opportunities for citizen participation, and empowering people from diverse backgrounds to form coalitions and influence policy. The same tools developed for digital marketing have also helped political campaigns substantially improve voter engagement, enhance their capacities for “small donor” fundraising, and more efficiently generate turnout (Owen 2017). However, as this report has documented, the increasingly central role of commercial digital marketing in contemporary political campaigns is reshaping modern-day politics in fundamental, and sometimes disturbing, ways.

The expanding infrastructure of data brokers, marketing clouds, voter management platforms and other ad-tech services enables campaigns to build extensive, highly granular profiles of nearly every voter in the U.S. Through mobile technologies and cross-device tracking, campaigns can now identify, find, track, and target these individuals wherever they go, anytime of the day or night, reaching and engaging with them during key “micro-moments” when they are most receptive to the message. The algorithmic operations of programmatic advertising have placed the entire process on steroids, accelerating the targeting of voters in real time, and enabling the delivery of precise messages, tailored not only to their demographic characteristics and political predispositions, but also to their fears, biases, and deep subconscious processes. Through so-called “dynamic creative,” individual messages can be tested, refined, and altered instantaneously to maximize impact (Kreiss and Howard 2010; Lipsman, Davidsen, and Fulgoni 2016, National Conference of State Legislatures 2016). Because of the central role that social media play in so many peoples’ lives, these platforms have become a major focus of political campaigns, offering an array of advertising tools, services and strategic support that have become indispensable to any candidate or group that wants to have an impact on voters. And while television remains a dominant medium for political advertising, it is now deployed not only to reach particular segments of the audience, but also to identify and microtarget individual viewers.

Many of the techniques described in this report have already raised concerns in the commercial context —over consumer privacy, discrimination, manipulation, and lack of transparency (Brill 2014, National Consumer Law Center 2014, Upturn 2015). Their continued and growing role in elections raises even more serious issues that are fundamental to the future of democracy. However, up until very recently, the entire system has managed to operate under the radar of public scrutiny or media attention. Those engaged in the enterprise are using all of these tools in an environment that appears to lack any ethical boundaries or public accountability. The heat of the campaign affords little opportunity for reflection, doubt, or questioning.

The fallout over the 2016 election has helped shed light on some of the digital marketing and targeting practices now in use in the political sector, prompting a number of initiatives to curtail some of the more controversial techniques. However, more needs to be done to ensure that both the public and policymakers understand the full dimensions of the new system, how it operates, and what its impacts are. For example, “fake news” has a direct relationship to programmatic advertising, the automated system of “intelligent” buying and selling of individuals and groups (Weissbrot 2017). Yet this system has largely been unknown outside of the ad-tech industry. Now widely operating throughout the world through many companies, programmatic advertising generates revenues for marketers big and small. Nearly anyone with even a modest budget can plug into the “self-serve” interface to target individuals on the sites they visit. These impersonal algorithmic machines are focused primarily on finding and targeting individual consumers wherever they are, often with little regard for the content where the ads may appear (Maheshwari and Isaac 2016).

In the middle of the 2016 election, many companies found themselves with ads placed on “sites featuring pornography, pirated content, fake news, videos supporting terrorists, or outlets whose traffic is artificially generated by computer programs,” noted the *Wall Street Journal* (Nicas 2016; Vranica 2017). As a major U.S. publisher explained in trade publication *Advertising Age*,

Programmatic’s golden promise was allowing advertisers to efficiently buy targeted, quality, ad placements at the best price, and publishers to

sell available space to the highest bidders.... What was supposed to be a tech-driven quality guarantee became, in some instances, a “race to the bottom” to make as much money as possible across a complex daisy chain of partners. With billions of impressions bought and sold every month, it is impossible to keep track of where ads appear, so “fake news” sites proliferated. Shady publishers can put up new sites every day, so even if an exchange or bidding platform identifies one site as suspect, another can spring up (Clark 2017).

Public criticism from news organizations and civil society groups, along with a major backlash by leading global advertisers, led to several new programs currently underway to develop safeguards for automated digital marketing (McDermott 2017; Minsker 2017). After major brands pulled their ads from YouTube, leading global advertisers and trade associations demanded changes in how Google, Facebook and others conduct their data and advertising technology operations. In an effort to ensure “brand safety,” new measures have been introduced to enable companies to more closely monitor and control where their ads are placed (IPA 2017; Liodice 2017; Timmers 2015).

The controversy over the how Russian operatives used Facebook, Twitter, and other sites during the election has triggered unprecedented focus on the data and marketing operations of these and other powerful digital media companies. For the first time, CEO Mark Zuckerberg was subjected to two days of intense and widely publicized congressional hearings, where he was grilled not only on the questions swirling around the 2016 elections, but also on the company’s broader business practices and uses of consumer data. In responding to the crisis, however, Facebook has largely tried to shift the focus away from its role in political advertising. In discussing “how we are thinking about elections,” for example, Facebook (2018) identified four “election security” concerns: “combating foreign interference,” “removing fake accounts,” “increasing ad transparency,” and “reducing the spread of false news.” While its measures for ad transparency include more stringent review before political ads are allowed to run, as well as requiring ads to disclose whom they represent, there has been little acknowledgment (beyond announcing a new effort with scholars on future research) that Facebook’s

complex and opaque data-driven marketing process plays an important role in political campaigns.

During the hearings, and in numerous blogs, press interviews, and news releases, Facebook executives have gone to great lengths to argue that the circumstances surrounding the loss of user information were unusual, explaining that the app created by a Cambridge University scholar, which was used to extract the personal profile data failed to comply with the social media platform's standard terms of agreement for its developers (Grewal 2018). In his testimony before Congress, Zuckerberg reiterated this point numerous times, assuring lawmakers that the company has put safeguards and controls in place in the last few years that would prevent a "data breach" of this nature in the future. Zuckerberg also repeatedly explained to Congress that his company is not in the business of selling user data to third parties ("Transcript of Mark Zuckerberg's Senate Hearing" 2018). However, the CEO was less than forthcoming about the actual operations of Facebook's business model, which are far more sophisticated than many people may understand. The company has created an elaborate and highly complex system for enabling advertisers or political campaigns to find exactly the Facebook user they are seeking and to deliver a precise message to that individual. No release of data is necessary. Facebook's platform was a key tool in the Trump campaign's voter suppression efforts targeting African Americans, youth, and women. (See Sidebar, "Suppressing the Vote.")

Voter-suppression tactics also reflect commonplace digital practices that target individual consumers based on factors such as race, ethnicity, and socioeconomic status. Both Google (2017) and Facebook, among many others, offer opportunities for marketers to target communities of colour (Martinez 2016; Nielsen 2016). Civil rights groups, such as Color of Change, have had some success in getting companies to change their practices. However, for the most part, the digital marketing industry has not been held sufficiently accountable for its use of race and ethnicity in data marketing products, and there is a need for much broader, industry-wide policies (Electronic Privacy Information Center n.d.; Garfinkel, Matthews, Shapiro, and Smith 2017). These safeguards could, in turn, help ensure that political campaigns are not

able to engage in some of the particularly disturbing profiling and targeting practices that were in evidence in the last election. Scholars, civil society advocates, and policymakers have also raised concerns about the role that Big Data algorithmic practices play in promoting unfair or discriminatory outcomes. Ways to ensure algorithmic accountability are a growing subject of focus by both academia and the public sector—including as it applies to elections (Association for Computing Machinery 2017; Rainie and Anderson 2017).

Much of the industry response to the current crisis has been carefully designed to assuage public criticism, with the goal of pre-empting regulation and avoiding any significant disruption of basic business practices. For example, both Facebook and Twitter have promised to establish archives for political advertising, which would be accessible to the public (Falck 2017; Goldman 2017; Koltun 2017). Last year Facebook piloted a political ad transparency centre in Canada that allows the public to view its political advertising in that country; Twitter also said it would have a similar transparency system. (Angwin and Larson 2017; Falck 2017; Goldman 2017; Valentino-DeVries 2018). Facebook also announced that “only authorized advertisers will be able to run electoral ads on Facebook or Instagram” (Kaplan 2017). In response to the April 2018 congressional hearings, Facebook introduced additional internal policies for its political advertising, requiring anyone wanting to run “issue ads” (“political topics that are debated across the country”) to be “authorized.” This will require advertisers to “confirm their identity and location.” Political ads will need to be labelled as such and must provide information on who paid for them (Goldman 2018). The company has also unveiled other measures to deal with fake news and to stimulate scholarship on issues related to digital political efforts and social media (Daniels 2018; Facebook 2018; Hughes, Smith, and Leavitt 2018).

However, for the first time in many years, the current debate has raised the real possibility of government intervention. Lawmakers, civil society, and many in the press are calling for new laws and regulations to ensure transparency and accountability for online political ads (“McCain, Klobuchar & Warner Introduce Legislation” 2017). The U.S. Federal Election Commission

has asked for public comments on whether it should develop new disclosure rules for online ads (Glaser 2017). Both Facebook and Twitter have announced support for the “Honest Ads Act,” a bill that would help ensure that online political advertising in federal campaigns provides the public with greater transparency about their source and at least some of their targeting methods (Hatmaker 2018; Schroepfer 2018).

The torrent of global media coverage over the political uses of data during the election has also thrust the issue of online consumer privacy into the foreground of public attention and debate. Contemporary digital marketing practices have raised serious issues about privacy for many years (Schwartz and Solove 2011; Solove and Hartzog 2014). Yet, in the U.S., very little has been done in terms of public policy to provide any significant protections. In contrast to the European Union, where privacy is encoded in law as a fundamental right, privacy regulation in the U.S. is much weaker (Bennett, C. 1997; “Review of the Data Broker Industry” 2013; Solove and Hartzog 2014). The U.S. is one of the only developed countries without a general privacy law. Although the Federal Trade Commission is the key government agency with responsibility to protect consumer privacy online, the agency lacks the statutory power to develop, implement, and enforce broad privacy rules. (Balto 2010; Federal Communications Commission 2015, 2016; Spinelli 2014). The data industry largely understands that it can ignore the agency as long as companies engage in “notice-and-choice” practices that require them to disclose through their privacy policies—even obliquely—what they do. When the U.S. Federal Communications Commission (FCC), which does have rulemaking authority, issued fairly strong privacy rules to govern the data practices of broadband internet service providers (ISPs) in 2016, the Republican majority in Congress quickly rescinded the rules (Zhou 2017). As a consequence, except in specific areas, such as children’s privacy, consumers in the U.S. enjoy no significant data protection in the commercial marketplace. In the political arena, there is even less protection for U.S. citizens. As legal scholar Ira S. Rubinstein (2014) explains, “the collection, use and transfer of voter data face almost no regulation.” The First Amendment plays a crucial

role in this regard, allowing the use of political data as a protected form of speech (Persily 2016).

Recently, however, lawmakers from both major parties discussed the need for regulation, and bills were introduced or proposed that would regulate online information in various ways (Markey 2018). The U.S. online advertising industry trade association, however, has been urging Congress not to legislate in this area, but rather to allow the industry to develop new self-regulatory regimes in order to police itself (IAB 2017-b). Relying on self-regulation is not likely to address the problems raised by these practices and may, in fact, compound them. Industry self-regulatory guidelines are typically written in ways that do not challenge the prevailing (and problematic) business practices employed by their own members. Nor do they provide meaningful or effective accountability mechanisms (Center for Digital Democracy 2013; Gellman & Dixon 2011; Hoofnagle 2005). Although any regulation of political speech must meet the legal challenges posed by the First Amendment, limiting how the mining of commercial data can be used in the first place can serve as a critically important new electoral safeguard. Advocacy groups in the U.S., spurred especially by the revelations regarding Russia's interference in the 2016 election and the role of both Facebook and Cambridge Analytica, are now mobilizing to address the data practices used by the commercial online advertising industry (Singer 2018). It remains to be seen what the outcome of the current policy debate over digital politics will be, and whether any meaningful safeguards will emerge from it.

Prospects for effective regulation of data practices are brighter in Europe. The EU's General Data Protection Regulation (GDPR) holds promise for some policies that could affect the operations of U.S. global companies and, in turn, perhaps their practices in the policy arena as well. In the UK, an inquiry conducted by the Information Commissioner Office (ICO)—that country's data protection authority—on “the data protection risks arising from the use of data analytics, including for political purposes,” could result in greater scrutiny and regulation abroad (Denham 2017; Doward, Cadwalladr, and Gibbs 2017; Howard and Gorwa 2017; Information Commissioner's Office n.d.). However, while there has been robust examination of the data protection

and competition issues related to American digital media companies, insufficient attention has been given to the broader core business objectives driving the industry's global growth ("Crowdsourced Lobby Exposé" 2013; Rushe 2017).

The news media have traditionally played a critical watchdog role in monitoring campaigns and elections, a function that will be increasingly important in the future. For example, newspapers, along with non-profits and think tanks, critique and "fact check" political advertising, calling out candidates or their surrogates when they engage in false or misleading communications (Kessler 2016). However, as more and more political messaging is personalized and targeted at precise "micro-moments" and at specific individuals through social media, mobile, or other digital platforms, there is no practical way for reporters or observers to access the content of the messages. The task of monitoring the complex and sophisticated processes of digital political communication is even more challenging. Although there were some important and influential investigative journalism efforts during the most recent U.S. presidential campaign, most of the hidden practices of contemporary politics operate completely out of view, and are generally not adequately covered by the mainstream media (Larson, Angwin, and Valentino-DeVries 2017). Cutbacks in newsroom budgets, ironically due to the loss of revenue connected to the success of the digital ad sector, also play a role in weakening the ability of the "Fourth Estate" to hold political campaigns accountable. Finally, news media institutions face their own ethical challenge in criticizing digital marketing practices, since they are also using programmatic advertising and other data-related techniques (Davies 2017).

The campaign strategies and practices we have documented in this paper will continue to evolve in coming elections. The digital media and marketing industry will continue its research and development efforts, with an intense focus on harnessing the capabilities of new technologies, such as artificial intelligence, virtual reality, and cognitive computing, for advertising purposes. (See Sidebar, "Emerging Technologies.") Advertising agencies are applying some of these advances to the political field (Google n.d.). Many of the digital companies, technologies, and strategies of contemporary political

marketing in the U.S. are already exporting their services to other countries around the world. (See Sidebar, “Exporting Political Ad Tech.”) Academic scholars and civil society organizations will need to keep a close watch on all these developments, in order to understand fully how these digital practices operate as a system, and how they are influencing the political process. We also have a critical opportunity to develop public policies, best practices, and other interventions to ensure that digital technology enhances democratic institutions, without undermining their fundamental goals.

Commentary: “Embedded Media Experts”

During the 2016 presidential election cycle, scholars Daniel Kreiss and Shannon C. McGregor (2017) conducted interviews with staffers of both presidential campaigns, as well as staff at the major technology companies—Google, Facebook, Microsoft—to determine the nature of the relationships between the technology industry and the campaigns. What they found is that the technology companies did not just offer their advertising platforms to these campaigns, but rather collaborated very closely with political operatives from both parties: “...these firms have all developed partisan organizational and staffing structures that accord with the two-party American system.... [A]ll of these firms help campaigns reach voters on the basis of certain categorical data such as demographics, behaviour, interest, 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” (Kreiss and McGregor 2017). The staffs within the technology companies were organized along partisan lines, so that those working with Democratic campaigns had backgrounds and experience in Democratic politics, and those working with Republican campaigns generally came from professional Republican politics. This structure, according to the authors, was a reflection of the increasingly polarized nature of U.S. politics.

The intensive, collaborative relationship during the 2016 presidential campaign was an extension of the increasingly close ties that had been established between digital companies and campaigns in earlier election cycles, as political campaigns began to take greater advantage of online advertising. For example, during the 2012 election, staffers for Google and Facebook worked very closely with both the Obama and Romney campaigns to help them with their advertising on the platforms (Kreiss and McGregor 2017).

But what is so striking about the 2016 election is that now, these so-

called “neutral platforms” were not only offering their products and services to these campaigns, but also forming close, strategic relationships with them. According to Kreiss and McGregor, there were several incentives for the technology industry to establish such cosy relationships with the campaigns. One obvious reason is that there was considerable money to be made through online marketing. Political campaigns were becoming big business to these ad-supported companies, constituting a “new vertical,” in the parlance of the industry, of specialized services based on monetization of consumer data. Spending on digital advertising had been increasing steadily over the previous election cycles, and presidential politics, alone had become a highly profitable enterprise, generating approximately \$2.4 billion in advertising revenues. But there appear to be other reasons why Google, Facebook, and the other major players in the tech business were so eager to be helpful to the candidates. The authors found from their interviews that tech companies considered their red-carpet treatment of political campaigns as part of their lobbying activities, especially since whichever candidate won the election would be in a powerful position to affect whether and how the industry would be regulated (Kreiss and McGregor 2017).

While the technology companies appear to have offered their products, services, and expertise equally to candidates from both political parties, the relationships between the campaigns and the companies varied considerably. Cash-strapped campaigns without digital infrastructure in place benefited to a greater degree than those already equipped with large in-house digital operations. In 2016, both the Sanders and the Trump campaigns worked much more closely with technology firms than did the Clinton campaign, taking full advantage not only of the ad tools and other services offered, but also the expertise and strategic guidance.

Commentary: Google and Facebook 2016

Google and Facebook—widely regarded as operating an oligopoly in terms of digital ad revenues—are the two most influential media and technology companies in the world. They operate and tightly control a far-reaching data-driven advertising and marketing apparatus. Both played significant roles in the 2016 election cycle. Google’s “campaign playbook” for political marketing explains that “[u]sing public voter files to target your ads on Google makes it easier than ever to reach the voters you most want.... You’ll be able to create a more effective campaign by first identifying specific voter groups by gender, age, location, and voting information. Knowing who your audience is—and what makes them tick—allows you to deliver more persuasive messages” (Google Politics and Elections. n.d.-a-b). Google urges campaigns to use its digital ad technology so they can “precisely reach audiences and target across devices. You can buy your ads in real time and deliver them when voters are most receptive to your message—like when they’re watching videos or reading articles. You’ll get access to millions of sites and apps through DoubleClick’s Ad Exchange and other ad exchanges, plus ad inventory on Facebook Exchange and Twitter” (Google Politics and Elections. n.d.-a) Google has focused on its highly lucrative YouTube service—which also accepts programmatic advertising—as an important and effective way to reach and influence voters (Stanford 2016).

Over the last few years, Google has redefined how marketers can take advantage of its ability to capture real-time mobile and search data and to create “micro-moments” that marketers can use to their advantage. It now also offers political campaigns access to those “micro-moments when undecided voters become decided voters...,” especially those using mobile devices (Stanford 2016). Google’s political ad services research shows that in 2016 mobile devices were used in nearly 60 percent of election-related searches. According to the company, the content producers (which it calls “Creators”) on YouTube were able to seize on these election micro-moments to influence the political opinions of potential voters 18-49 (Hootkin and Luntz 2016; Stanford 2016).

Facebook's role in the 2016 election was particularly important. With users required to give their real names when they sign up as members, Facebook has created a powerful "identity-based" targeting paradigm, enabling political campaigns to access its more than 162 million U.S. users and to target them individually by age, gender, congressional district, and interests. Its online guide for political campaign marketing urges political campaigns to use all the social media platform tools it makes available to advertisers—including through Instagram and other properties—in order to track individuals, capture their data through various "lead-generation" tactics, and target them by uploading voter files and other data (Facebook Politics and Government n.d.-b).

In a case study of its work for the "Keep the Promise III" political action committee supporting the presidential campaign of Sen. Ted Cruz (R-Texas), Facebook explains that it "used Facebook's political ideology targeting, which is comprised of 5 segments that have been peer-reviewed and published in *American Political Science Review*" (Bond and Messing 2015; Facebook Business. n.d.-e). The campaign also took advantage of Facebook's "people-based targeting," which merged voter files with Facebook data in order to target individuals through the platform's political segmentation data analytics system. These political segments are based on a paper co-authored by a researcher from the Facebook Data Science division, who worked with an Ohio State University scholar to develop an "ideology score" framework. Drawing from an extensive Facebook user data set, and analysing "social ties and interaction online," researchers were able to determine the political orientation of millions of users, who then could be targeted by political parties and candidates (Facebook Business. n.d.-e).

Facebook urges political campaigns to use all of the social media platform tools it makes available to advertisers, including the ability to track individuals, capture their data through various lead-generation tactics, and target them by uploading voter files and other data (Facebook Politics and Government. n.d.-a-c-d). For example, its "Custom Audiences" product enables marketers to upload their own data file so it can be matched and then targeted to Facebook users (Facebook Business. n.d.-g). Senator Pat Toomey

(R-PA), who faced a potentially tough re-election campaign, “used a made for Facebook, audience-specific content strategy to significantly shift voter intent,” according to an online Facebook Business (n.d.-g). case study. Toomey used Custom Audiences, which matched “8 first-party data files to Facebook.” Toomey’s campaign manager praised Facebook in the case study, stating that “Facebook allowed us to customize Senator Toomey’s message to individual voter groups, speaking to the specific issues that those voters cared about. That level of customization is not available through traditional TV advertising” (Facebook Business n.d.-g).

Facebook also helped a conservative business group defeat a Democratic challenger, Deborah Ross, who was running for the U.S. Senate in North Carolina, by helping generate an attack video ad about her positions and character. According to Facebook’s case study, entitled “Fueling Political Passion with Video,” the group’s ad firm developed a “Deb Ross Burn Book” video designed to “discourage people from voting for her.” The Burn Book video “used a storybook motif to share the various instances when Ross voted to raise taxes,” and targeted the video on the mobile news feed of “300,000 moderate voters” (Facebook Business. n.d.-a).

In its profile of the 2016 Bernie Sanders campaign, Facebook quotes one of the leaders of his digital campaign, who explains that “as Facebook has more active US voters than any other medium, we knew our advertising strategy here would be critical to getting this campaign off the ground” (Facebook Business. n.d.-b). The social media company reported that “the campaign took advantage of Facebook’s full suite of targeting and direct response solutions to encourage people to join its email list.” The Sanders campaign worked directly with Facebook to “launch the first-ever politics-specific Canvas ad” (“an immersive mobile experience on Facebook for businesses to tell their stories and showcase their products”). The campaign also worked with the “Facebook Marketing Science team... to find out how much Facebook ads influenced voter behaviour.” The custom “brand lift” measurement tool revealed that “Facebook ads in News Feed and Instagram ads combined effectively improved awareness and sentiment metrics. The second test also showed that mixing ad types (video, link and carousel)

produced even better results.” Political campaigns also relied on Facebook’s marketing partners, such as giant data broker Acxiom. Tapping into the growing role that so-called “influencers” play in promoting products, in 2015 Facebook launched a tool that enables campaigns to target “politically active users” by identifying and targeting those individuals who have “political pages” on the platform, are likely to engage with campaigns, and who “like and share” campaign content (Miller 2015; Ungerleider 2015).

According to an internal Facebook white paper written by company data scientists after the election, “Trump’s FB campaigns were more complex than Clinton’s and better leveraged Facebook’s ability to optimize for outcomes” (Frier 2018). Bloomberg BusinessWeek, which obtained the paper, reported that the Trump campaign “ran 5.9 million different versions of ads during the presidential campaign and rapidly tested them to spread those that generated the most Facebook engagement,” primarily in search of new donors (Frier 2018). (Hillary Clinton’s Facebook effort placed “66,000 different ads in the same period.”) Trump also used various Facebook ad targeting tools, such as lookalike audiences; “more than a quarter of Trump’s ad spending was tied to third-party data files on voters,” it reported (Lapowsky 2016). “Facebook and Twitter were the reason we won this thing,” said Brad Parscale. Facebook was the “biggest incubator” that allowed it to raise online campaign contributions, generating the “bulk” of the \$250 million raised. Twitter—and other outlets—also gave candidate Trump a digital perch that generated a multi-billion dollar avalanche of free publicity—so-called “earned media” (Harris 2016).

Commentary: Suppressing the Vote

In the direct-marketing world, companies have long been able to purge or “suppress” individuals from mailing lists, including those who have already purchased the product being advertised, or who are otherwise not appropriate recipients for the message. In the language of the marketing industry, this process is often called “audience suppression.” Political operatives may use the technique in order to ensure that a Democratic pitch is not sent to a Republican voter, or vice versa (Sluis 2017). Digital advertising enables marketers to make narrowly tailored decisions about how to treat each individual differently. As ad-tech firm LiveRamp (2016), explains, “This principle of selectivity is now guiding digital marketers as they strive for accurate, relevant personalization in their people-based marketing efforts.” To the extent that highly detailed profiles of consumers often include data about race, gender, social class, and other sensitive attributes, audience suppression may mean that an African American is not delivered an ad for a luxury car, but will be targeted with messaging promoting a payday loan.

The Trump campaign employed these same “people-based” personalized digital marketing tactics to identify specific voters who were not supporters of Trump in the first place, and to target them with psychographic messaging designed to discourage them from voting. Campaign operatives openly labelled this effort “voter suppression” (Green and Issenberg 2016). The use of this particular term appears to marry a practice in contemporary digital marketing with the decades-old strategy used to put up barriers, discourage, or otherwise undermine the motivation or ability of voters—principally African American and other minority groups—to go to the polls (Bump 2016). The conflation of these two concepts may well have been purposeful. In the 1920s, the Ku Klux Klan and other white supremacist groups organized their members to monitor polling places—as a way of intimidating and discouraging turnout (Bump 2016). Donald Trump told his supporters to use similar tactics by visiting the polls in neighbourhoods outside of their communities and monitoring them for any irregular activity (Hancock 2016). The campaign’s digital strategy was a parallel effort. Taking full advantage of the precise targeting of individuals available on social media and other marketing

platforms, campaign operatives engaged in what they referred to as “three major voter suppression operations” aimed at “idealistic white liberals, young women and African Americans” (Green and Issenberg 2016). Bloomberg quoted an unnamed source that the “Trump campaign was explicitly hoping to suppress turnout among black voters this year” by targeting those who supported Hillary Clinton with ads that included a 1996 video of Hillary Clinton speaking about “super-predators” and linking her to unpopular policies developed during the Bill Clinton administration. Facebook was a primary vehicle for this effort. The voter suppression operations used standard Facebook advertising tools, including “Custom Audiences” and so-called “dark posts”—“non-public paid posts shown only to the Facebook users that Trump chose” to receive personalized negative messages. The campaign spent \$150 million for its overall ad campaign on Facebook and Instagram (Facebook Business. n.d.-f; Green and Issenberg 2016; Winston 2016-a-b).

Misleading and purposefully incorrect information that was distributed online (“fake news”), according to scholars, “may have contributed to Trump’s 2016 victory” (Gunther, Beck, and Nisbet 2018).

Commentary: Exporting Political Ad-Tech

The business priorities, technological prowess and political agenda of the U.S. digital marketing industry are structured to help orchestrate its unfettered growth all over the world. The industry works principally through the global “Interactive Advertising Bureau” (IAB n.d.) network, which now numbers 47 country-based organizations located in Africa, Asia, Australia, Europe, and in both North and South America. Although there is “one regional” IAB based in Brussels that represents EU-specific concerns, much of the political and technological direction is shaped by the IAB based in New York. On its board are directors whose companies span continents, representing Google, Amazon, Facebook, Microsoft, Pubmatic, Disney, News Corp. Oath (AOL), Twitter, Snapchat, Pandora and others. Among the members of the IAB’s numerous task forces, which work to ensure that data and marketing applications are embedded in emerging services as well as kept up to date to reflect their potential, are many heads of global ad-tech-related companies. The U.S. IAB brings its global IAB colleagues to the U.S. for meetings on policy, to be informed about and share political strategy, to help develop consensus on the latest ad targeting practices (IAB 2018-b).

Google was the primary sponsor of the IAB’s 2017 “Global Summit,” which brought together media and tech executives from companies and IAB affiliates based in China, Japan, Germany, Australia, Mexico, Poland, and elsewhere (IAB 2017-a). Companies such as Google and Facebook often fund international and cross-border research, policy, and technological innovation conferences and events. IAB has been promoting the use of data-driven digital marketing for political campaigns. Its “Data Council” issued a white paper in 2012 entitled “Election 2012: Big Data Delivers on Campaign Promise,” which analysed “techniques and evolution in the online political microtargeting market” (IAB 2012). It released a follow-up report on political microtargeting in 2013 and conducted a study on the important influence of digital media on voters during the 2016 U.S. electoral campaign (IAB 2016-a). In 2018, the IAB EU and the IAB Tech Lab based in New York jointly released its “Cross Industry Transparency and Consent Framework” for the GDPR (IAB 2018-a).

Beyond promoting the capabilities of digital advertising for politics in its reports and events, IAB members are providing digital political campaigning applications throughout the world. Facebook's "global government and politics" group, based in Washington, D.C, "become de facto campaign workers" in India, Brazil, Germany and the U.K. According to Bloomberg, in meetings with campaign staff that group "sits alongside Facebook advertising sales staff who help monetize the often viral attention stirred up by elections and politics. They train politicians and leaders how to set up a campaign page and get it authenticated with a blue verification check mark, how to best use video to engage viewers and how to target ads to critical voting blocs" (Etter, Silver, and Frier 2017). Ad giant and IAB member WPP offered its programmatic digital data targeting system Xaxis for the Philippine elections (GroupM 2016).

Commentary: Emerging Digital Marketing Practices for Political Targeting

Political campaigning is quickly adopting the innovations developed for commercial digital advertising, such as the use of Artificial Intelligence, Cognitive Computing and Virtual Reality. Both Google and Facebook are developing AI applications to deliver more effective marketing (Biddle 2018; Chow 2017). These practices are now entering the political ad field (De Bonis 2016).

Artificial Intelligence. Through “deep learning and natural language processing,” IQM’s “AI-Powered Voter Intelligence” says it “gives any political organization the ability to influence voter behavior through real-time computational persuasion.” This includes generating a “detailed persuasion profile for each voter segment down to the individual level.” As with other digital marketing companies, IQM (n.d.) has extensive relationships with leading commercial data targeting companies. MarketPredict (n.d.), a new AI “live predictive modeling” system offered by the Scripps media company, promises to help campaigns “Get Inside the Mind of the Voter.” It provides ways to convert voters into supporters by “modeling the factors that can influence” them. AI-enabled “chatbots” that automate intelligent conversations between voters and campaigns, such as through Facebook Messenger (n.d.), are now becoming part of electioneering as well.

Virtual Reality (VR): Ad firm Isobar (n.d.), working with the MIT Media Lab, has developed “Mindsight”—“the world’s first VR measurement and analytics tool” that “accesses the emotional brain.” Isobar (2016) used Mindsight to “get inside the minds of voters who were on the fence between Clinton and Trump prior to the election. Isobar showed its 773 participants images designed to reflect emotions like anxiety, freedom, or frustration, and had them rapidly select the ones they most strongly associated with a Clinton or Trump presidency.” The result showed that Trump voters were fearful and felt they were “imprisoned.” Isobar suggested that Trump needed to convince these potential supporters that he would “take the country away from dangers” (Isobar 2016). VR and other immersive techniques are expected to play a growing role in political campaigns.

Identity Management and Marketing Automation: Emerging technologies will enable more precise ways to gather and activate information on the electorate. This confluence of additional methods to identify people through the assignment of unique IDs that reflect an individual's online and offline behaviours, and which is managed by a DMP, will allow brands and political campaigns greater opportunities to influence (such as "nudge") our actions. Various automated services, including "Digital Intelligence" platforms, will guide companies in finding the most effective ways to influence voter behaviour (Advertising ID Consortium n.d.; Brownsell 2018).

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