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Original Article

Does data drive campaign decision-making? Theorizing campaign practice and the future of election campaigns

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Abstract

Modern election campaigning is often described as "data-driven," but there are signs that data may not always inform decision-making. This article focuses on the decision-making component of campaigns and provides a new theorisation of this previously neglected component of data-driven campaigns. Arguing that decision-making is affected by a range of contextual, agential and organizational factors, I call for qualitative analysis of campaign practice that is needed to understand how decisions are made. Applying this theoretical account, I consider the likely future of election campaigning, reflecting particularly on the potential for automation. Specifically, I identify where automation is likely to emerge and conclude that rote-like decision-making is unlikely to entirely define the practices of future campaigns. Collectively this article offers new theoretical insight into an overlooked aspect of modern campaigning - decision-making - and provides offers a foundation for more accurate predictions about the future of campaigns.

Introduction

As captured by the epithet "data-driven campaigning," modern election campaigning is now often characterized by the collection of data and use of analytics to optimize and advance campaign goals (Hersh, 2015; McKelvey & Piebiak, 2019). Mirroring wider societal adoption of data analytics (Anderson, 2008), scholars have shown that certain campaigners are gathering data as never before and are investing in analytics and message testing (Dommett et al., 2024a; Franz et al., 2024; Minihold & Votta, 2024; Ridout, 2024; Segesten & Sandberg, 2024). For those interested in diagnosing the evolution of campaign practice (Blumler, 2016; Kruschinski & Haller, 2017; Römmele & Gibson, 2020), these trends signal a potential move towards a new era of campaigning where data use is automated to provide campaigners with a competitive edge.

Whilst just one possible ideal type depiction of the future of campaigns, given the rapid rise of artificial intelligence this vision is particularly interesting. Evaluating the likelihood of such an outcome is, however, challenging because existing research on data-driven campaigning lacks clear theorization of how data informs decision-making and whether, therefore, the conditions for automation currently exist. Given that some work has questioned the extent to which data is being used to inform campaign decision-making (Baldwin-Philippi, 2017, 2019), there is a need to understand more about how decisions are made. This suggests the importance of developing a theoretical account of when and why different types of data inform decision-making that can be used to generate more accurate expectations of the future of campaigns.

In this article I interrogate the idea of data-driven campaigning to examine the nature of data-driven decision-making. Unlike previous studies which have explored the inputs (i.e., the collection and analysis of data) (Dommett et al., 2024a; Kefford et al., 2023; Ridout, 2024) or outputs (i.e., evidence of targeting, A/B and message testing) (Figeac et al., 2024; Votta et al, 2024) of data-driven campaigning, I focus on the decision-making process and consider the influences on and impediments to the use of different types of data. In this way I build on earlier work by Dave Karpf (2018), in highlighting boundaries to what he terms "analytic activism." Specifically, I emphasize how the nature of data and decision-making, the idiosyncrasies of human decision-makers and constraints on campaign practice can inform the use of data in decision-making. Discussing these influences, I seek to explain why decision-making is not always informed by the consumption of simple forms of homogenous data and, looking ahead to the future of campaigning, discuss the potential for a more automated era of campaigning. This approach builds on work by Fenno (1998) and, more recently, Nielsen (2012), Parker (2014) and Van Duyn (2021), which has generated rich insight into campaigns by studying the everyday practices of these assemblages. Advancing this qualitative approach (Karpf et al., 2015), I assert the need to look in more detail at how campaign actors make decisions in order to generate more accurate predications more about the likely future of campaigns. This study therefore marks a departure from ideal type analyzes seeking to characterize the next campaign "era" or "type," and instead seeks to foreground the complex and contextually contingent dynamics of campaigns by developing our theoretical understanding of data-driven decision-making within campaigns.

To structure this piece, I first introduce the idea of data-driven campaigning in more detail, particularly reflecting on how this practice is seen to affect decision-making. I then turn to discuss influences upon data-driven decision-making. Finally, I reflect on the implications of this argument for the study and future of data-driven campaigning. This article

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accordingly contributes a new perspective on debates around the future of campaigning, advancing new questions and foregrounding currently underutilized modes of inquiry.

Data-driven campaigning and decision-making

Our understanding of data-driven campaigning has advanced at a rapid pace. Defined as "a mode of campaigning that seeks to use data to develop and deliver campaign interventions with the goal of producing behavioral or attitudinal change in democratic citizens" (Dommett et al., 2024a, p. 10), since 2016 there has been an increase in scholarship on this topic (Baldwin-Philippi, 2024) and associated ideas, such as "analytic activism" (Karpf, 2018). Often tied to developments in digital technology and the availability of new data and analytics techniques, there are now several accounts that have described the routine collection and analysis of data by political parties (Anstead, 2017; Dommett et al., 2024a; Kefford et al., 2023; McKelvey & Piebiak, 2019; Ridout, 2024) and civil society campaign organizations (Karpf, 2018; Macintyre, 2020). In much of this work it is contended that data-driven campaigning is not a "new" phenomenon, but a longstanding trend that has been advanced by the availability of new forms of data (Baldwin-Philippi, 2019, p. 2).

The implications of these activities for decision-making have been hinted at within some existing scholarship. Munroe and Munroe describe how "[a] data-driven campaign is one in which decisions are guided by the use of data rather than by instinct, guesswork, intuition, tradition or rules of thumb" (2017, p. 4). Elsewhere a systematic review of existing work defined data-driven campaigning as occurring when data is "used to inform decision-making in either a formative and/or evaluative capacity (…) employed to engage in campaigning efforts around either voter communication, resource generation and/or internal organization" (Dommett et al., 2024b, p. 2). For Römmele and Gibson (2020) data-driven campaigning is seen to represent a new "era" of campaigning characterized by more "scientific" (or, indeed, subversive) practices, whereby campaign leadership is "subsumed by data-driven decision-making and becom[ing] more 'rote' and machine-like" (2020, p. 603).

These statements hint at the advent of a new mode of decision-making within campaigns, but despite this there has been remarkably little empirical observation of such decision-making or theoretical explication of how this process has changed. It is therefore unclear whether and how data does drive decisions, and how (and why) it plays a role alongside other potential influences on campaign practices. To give an illustrative example of this trends in practice, Kreiss' account of the Obama campaign is informative here. In one passage Kreiss outlines how:

> the re-election bid assigned numerical scores of likely political attitudes and behaviour to every member of the electorate. These scores are the outgrowth of an enormous proliferation of data about citizens over the last decade and, as importantly, new analytical techniques that render them meaningful. The re- election campaign used four scores that on a scale of 1 to 100 modeled voters' likelihood of supporting Obama, turning out to vote, being persuaded to turn out, and being persuaded to support Obama on the basis of specific appeals (Beckett, 2012). These modeling scores were the basis for the entire voter contact operation, which ranged from making 'personalized' appeals on the doorsteps (Nielsen, 2012) and through the social media accounts of voters (Judd, 2012), to running advertisements on the cable television screens of swing voters (Rutenberg, 2012)' (Kreiss, 2010, p. 123)'.

This account signals the growing importance of data within campaigns, but implicit here is the relationship between the data being collected and the actions of the campaign. It could appear that the data was directly translated into campaign actions, signaling it to be central to decision-making, and yet as Kreiss himself (2016), and a range of other authors have suggested, campaign decision-making is often more complex and can reflect a diverse range of factors (Baldwin-Philippi, 2019, p. 3). Whilst Kreiss' analysis was not focused on decision-making, and hence my intention here is not to critique his work, this example is indicative of how scholarship on data-driven campaigning often does not address questions about how, or indeed whether, data informs decision-making.

Instead, prevailing narratives have sought to document the "input" or "output" of data driven campaigns. In the first, "input," tradition, scholars have examined the nature of data collection and analytics found within campaigns. Nickerson and Rogers, for example, describe how "[c]ontemporary political campaigns amass enormous databases on individual citizens and hire data analysts to create models predicting citizens' behaviors, dispositions, and responses to campaign contact" (2014, p. 53). Elsewhere, Gibson, Bon and Römmele (2024) and Dommett, Kefford and Kruschinski (2024a) have outlined indicators of data-driven campaigning, specifying the type and source of data and the methods of analysis. These accounts have offered new insight into the components of data-driven campaigning, revealing different campaigns to be more or less "data-driven" and seeking to explain such variations.

Meanwhile, the second tradition has focused on the "output" of campaigning, looking for evidence of data-driven campaigning in practice. In this vein, scholars have reported evidence of targeting, A/B and message testing and campaign evaluation practices. Early work by Russman, for example, traced the online targeting strategies of Austrian and German campaigns. More recently Stuckelberger and Koedam (2022) examined Facebook targeting strategies in Austria, Canada, Ireland, Switzerland and the UK, whilst Votta et al. (2024) look at targeting practice on Meta in 95 countries. Such analysis has revealed the practice of data-driven campaigning in action, again showing variation in the extent and sophistication of data use. What is less evident, however, is how exactly the data "inputs" translate into these different actions, meaning much of our understanding of modern election campaigning rests on implicit assumptions about the relationship between inputs and outputs. This means we know little about how and why data is or is not taken up and translated into action.

What knowledge we do have about what may be happening here has been provided by Karpf's work on civil society organizations which attempts to explain activist campaigns' use of data. Here, his work on "boundary conditions"

diagnoses an "analytics floor" which highlights how organizational size—and available resource—limits the utility of data analytics, and an "analytics frontier" where complex campaign goals and patchy data limit what is analytically possible to achieve (2018, pp. 6–7). Some other work has sought to explain party- and country-level variation in data-driven campaign practice (Dommett et al., 2024a; Kruschinski & Haller, 2017), but this has tended to focus on differences in the type of data-driven campaigning in evidence and has not explained why data may not always be used to inform decisions within a single campaign—suggesting the need to understand more about the decision-making process.

This lack of theorization becomes particularly important given growing interest in the emergence and potential integration of artificial intelligence (AI) and specifically automated decision-making within campaigns. In recent years there has been speculation about the potential for campaigning to become increasingly automated in nature because of the advent of data-driven campaigning (Römmele & Gibson, 2020). Particularly with the rise of AI there is seen to be potential for a more rote-like form of campaign decision-making (Safiullah & Parveen, 2022). Whilst early concerns about the impact of AI on campaigns have not been realized (Simon & Altay, 2025), the growth of firms offering AI powered analytics (Chaterjee, 2024) and experimentation with AI polling (Berger et al., 2024) suggests that automated decision-making could transpire in the future. Even given previous evidence that campaigns tend to lag behind other sectors in technological adoption (Kreiss, 2016), these developments make it important to evaluate the likely uptake of such tools. To do so, it is, however, necessary to understand the dynamics of current decision-making in order to determine whether these are compatible with the requirements of automation.

In setting out to offer a theorization of data-driven decision-making, it is important to note that this piece is not intended as a critique of pre-existing work. The lack of attention to decision-making is likely to derive in part from challenges surrounding access to political campaigns (Dommett & Power, 2021), political elites (Aberbach et al., 1975), and the forums where campaign decisions are made. Indeed, it can be exceptionally challenging to study the relationship between the input and outputs of campaigns, or to establish exactly how data does inform decisions, what data is most influential and whether and how data inputs result in specific outputs. Noting these challenges, in the remainder of this article I set out to identify possible influences upon campaign decision-making, developing our theoretical understanding of data-driven decision-making. In doing so I am to facilitate richer understanding of the dynamics of historic, contemporary and potential future campaigns. To do so I draw inspiration from existing work on campaigning and decision-making in other organizational contexts to highlight a range of contextual, agential and organizational influences that can inform decision-making. Offering a series of hypothetical examples based on data collected on data-driven campaigns in several countries over the past 10 years,[1] I aim to fill the gap in our understanding of campaign decision-making. Specifically, I set out to document the different ways in which data can be consumed and utilized within campaigns, seeking to capture how the nature of data and decision-making, the idiosyncrasies of human decision-makers and constraints on campaign practice can inform campaign action.

Intervening factors influencing the use of data within decision-making

In the analysis below I examine the example of decision-making within political parties, but these ideas could equally be applied to campaigning in other organizations. Below I discuss the components of data-driven decision-making (Dommett et al., 2024b): data and analytics, decision-making and campaign action, working to highlight considerations that can affect how decisions are made. Whilst not professing to capture all possible influences, I isolate factors I suggest should be the focus of future empirical analysis and invite other scholars to build on these ideas.

Data (and analysis)

In thinking about data-driven campaigning it is important to begin with a discussion of data. Given the limited attention paid to decision making, it is fruitful to start by considering scholarship that has attempted to characterize the form of decision-making that is indicative of data-driven campaigning. Munroe and Munroe offer the most direct account of this component, arguing that data-driven decision-making involves a shift away from making decisions on the basis of "gut instinct" and "rules of thumb" to instead see "data" guide decisions. At first glance these ideas appear relatively intuitive—implying a move from decision-making based on vague or unsystematic data to the use of scientific or systematically gathered information. And yet, when interrogating this distinction more closely the line between "data" and experiential or "gut instinct" insights is hard to draw. This suggests a need to consider whether only certain types of data, meeting certain standards of quality and coherence, are present when data-driven campaigning is in evidence, or whether a range of different information plays a role. To do so, it is helpful to look at examples of how campaigns operate.

To take a fictionalized example based on a real-world scenario, imagine a situation where focus groups were used to develop a message for use in telephone campaigning. A specific message tests well and informs the scripts and campaign materials used by the campaign. After a few weeks, however, the party's campaign headquarters start getting impressionistic feedback from local campaigners saying that the message is not working and is alienating rather than winning voters.[2] In response, the campaign management team pulls the message and revises their communication plans. In this example, Munroe and Munroe's ideas suggest that impressionistic feedback from campaigners would not appear to count as "data," as this is more indicative of the kind of experiential or unsystematic forms of data pointed to when differentiating a data-driven campaign from preceding campaign forms. However, in this particular example campaigners' feedback was seen to be vital for the campaign and caused them to rethink the insights from more "scientific" data points. Such a scenario could suggest that data-driven campaigning is not in evidence, but rather I suggest that the conception of data as a certain form of information is not useful in understanding campaign decision-making. Rather there are reasons to believe that an array of different data points are used and consumed by campaigns which can vary considerably in terms of their origins, rigor, scale and representativeness. This suggests a need to theorize data-driven campaigning as involving not the replacement of anecdotal or experiential data with rigorous, scientific data, but rather as a form of campaigning

in which decision-makers have access to ever more information which differs considerably in characteristics.

This approach is valuable because it helps to foreground the sheer amount of data that campaigns consume. Scholars have already mapped the vast array of demographic, behavioral and attitudinal data gathered in person, online, from official records and companies about individuals and groups of citizens (Dommett et al., 2024a; Gibson et al., 2024; Hersh, 2015). What has been less discussed is how parties consume these ever more extensive data insights. There are many possibilities here. It is possible, for example, to imagine data being consumed in a "raw" form, with simple reports of how many people are registered to vote, how many people support the campaign, and what message is the most effective in A/B testing. Alternatively, individual data points can be aggregated using analytics processes which combine multiple pieces of information to generate further insights—i.e., what type of people are more likely to not register to vote, where a campaigns' support is geographically concentrated, and how citizens' demographic characteristics affect their consumption of campaign messaging. Importantly, not all forms of data can or will be aggregated in this manner, creating differences in the way different types of data can be presented.

It is also possible to identify other attributes of data that may affect how it is viewed. Different forms of data can also be more or less accessible to a decision-maker. Consider, for example, the difference between data from an A/B test, from a focus group and from a multi-level regression and post-stratification (MRP) model (Hanretty, 2020). The former provides a relatively clear and easy to interpret output that reveals how materials can be optimized, in comparison focus group data can suggest different strategies for vote optimization and require detailed engagement to assess the virtues of different options, whilst MRP modeling can be challenging for those without statistical backgrounds to interpret and analyze outputs. Decision-makers therefore navigate a raft of different data which may be more or less intelligible to them, foregrounding questions around data consumption.

Different sources of data and analytics are also not necessarily consensual or complete (Richterich, 2018). It is possible for conflicting data and insights to exist, either from similar or very different sources. To take another fictionalized example, imagine a politician being presented with two sources of polling data. Each data source indicates the virtue of an alternative course of action. In such a case, the decision-maker is presented with a dilemma; which data source should be used to inform decision-making? It is not automatically clear how they should respond. It can also be the case that, even with more insight than ever before, some desired data is not available. Data can often be partial, inaccurate or incomplete (Pangrazio & Selwyn, 2023, p. 46), leading campaigns to rely on proxies or to entirely lack desired insights. Indeed, campaigners often use engagement metrics on social media to monitor the impact of their posts, but they acknowledge that such metrics do not indicate whether people are interacting for positive or negative reasons, or whether interaction is related to voting behavior. Similarly, campaigners acknowledge that estimates of campaign support can often be unreliable, and that self-reported data is often inaccurate or incomplete (Karp & Brockington, 2005). Complete and high-quality data is therefore not always available to inform decision-making (Batini & Scannaieco, 2006). Whilst in some instances campaigners generate inferred insights to address this challenge—using known information to gather insights into other behaviors or attributes of interest—this information is often seen to be unreliable. It is therefore by no means the case that campaigns have access to the information they desire when making decisions.

What emerges from each of these points is that data is complex. Rather than existing as a single, coherent construct that offers a clear guide to decision-makers, data and analytics are often overwhelming, contradictory, incomplete, and open to interpretation. This dynamic is by no means unique to campaigns, as attempts to undertake evidence-based decision-making are often hindered by "the huge volume of various kinds of evidence and by the unsuitability" of available evidence (Stevens, 2011). It suggests that the consumption of data is therefore not an automatic process, but requires interpretation. This chimes with the idea that data consumption (and production) is a "social and often political practice" (Ruppert, Isin & Bigo, 2017, p. 3), meaning it is possible for the value of data to be judged differently dependent on the particular individual or circumstance in which that data is being consumed (Watts et al., 2009, p. 203).

These ideas signal the importance of understanding how decision-makers perceive the quality and value of different data forms and how they arbitrate between different insights. It suggests that data will not be consumed in the same way by each and every individual within a campaign organization, but also that the same individual will view different data points to have different levels of value. These judgments can be made in accordance with objective and subjective assessments of quality and utility (Pipino et al., 2002), affecting how specific pieces of information are viewed. There are indeed examples of when, faced with a raft of data sources and analytics outputs certain decision-makers favor modeled or aggregated data that assimilates varied data sources to produce cohesive insights and recommendations, whilst others lack trust in and understanding of modeled data and so prefer to rely on raw data sources which they understand. Furthermore, there are certain types of decision where one data form is preferred, and others where the very same data is deemed less reliable. These scenarios play out in campaigns around the globe and reflect the fact that "information that is of acceptable quality for one decision context may be perceived to be of poor quality for another decision context, even by the same individual" (Watts et al., 2009, p. 203). Individual level perceptions therefore matter to how the data and analytics performed within parties are viewed.

These insights suggest that rather than being a uniform construct, data comes in many forms and can have different attributes. Moreover, single data points can directly inform decisions or be mediated through analytics processes that rely on more or less complete data. The inputs of data-driven campaigning are therefore far from self-explanatory, as data can be interpreted and activated or neglected by decision-makers, who in turn are located in potentially very different contexts that can impose certain constraints (be they systemic, regulatory or party-level factors [Dommett et al., 2024a]). This in turn suggests the importance of understanding more about the nature of decisions.

The decision

Considering decisions in greater detail, as indicated above, the behavior of individual actors may not always be

consistent in regard to how data is perceived and consumed. Indeed, previous work on campaign dynamics has shown, "[t]he campaigning of the political actors [to be] embedded in a specific political context" (Kriesi et al., 2009, p. 345). Within this section I consider how purpose, organization, timing and politics can affect decision-making and data use.

Within the context of campaigns, decisions can be made in a range of different realms, and regarding different goals. In political parties Dutceac Segesten and Sandberg (2024) point to the use of data in communications, strategy and member interactions, suggesting that data can be gathered and employed to guide practice in different arenas. Similarly, other scholars have described how data can be used to develop an approach, optimize an intervention or evaluate a campaign activity (Baldwin-Philippi, 2019). Understanding the type of decision is important because some decisions—such as where to place a fundraising button on an email, or which picture to use in an online advert—can be relatively straightforward and uncontentious, yet other decisions may be more controversial, consequential (in terms of risk) or tied to political considerations (see more below). The precise type of decision data is being used to inform can therefore affect the way data features within the decision-making process, making it important to understand more about the particular contextual dynamics affecting specific decisions, be they systemic, regulatory or party-level factors (Dommett et al., 2024a).

The way decisions are made can also be shaped by campaign structures. Mapping different forms of campaign structure, scholars have shown that whilst some campaigns operate hierarchically, with decisions made by a centralized campaign team,[3] others can be decentralized or stratarchical organizations, seeing decisions made locally or in collaboration with a central campaign team (Bolleyer, 2012). As Scarrow, Webb and Poguntke detail in their discussion of political parties, "parties use elaborate representative structures to make, or to ratify, important decisions (…) but the details of these structures vary widely. At one extreme, some are overly authoritarian, vesting control in a leader or leadership team; at the other extreme, some are avowedly plebiscitarian, opening decision-making to all members" (2017, pp. 3–4). Decision-making in campaigns should therefore not be presumed to be uniform, as the level at which decisions are made and the information accessible to those individuals may vary considerably. To give an example, in formulating campaign strategies a local campaign leader may have access to only limited amounts of locally collected data, whereas the campaign headquarters may have a raft of available intelligence. When faced with the same decision, these actors may therefore make very different choices based on the information available to them.

These organizational factors are also important for thinking about how and why different perspectives of the same data may emerge. As shown in previous research, campaigns are not composed of homogenous actors, but are assemblages (Nielsen, 2012) that contain politicians, activists, paid staff, external consultants and/or vendors (Farrell, 1998). These actors each have different backgrounds and perspectives which may affect decision-making, meaning that the same data are unlikely to be interpreted identically by different actors within the campaign. For this reason, understanding more about who makes decisions, what information they have access to and what consequences or reach their decisions have is important for interpreting why certain choices are made.

Other contextual factors related to the decision can also play a role. Time, for example, can affect the treatment of data. As accounts of campaign organization reveal, time and capacity are significant pressures curtailing activity (Bossetta & Schmøkel, 2023). Campaigns are often not consistent efforts, but rather ebb and flow, with certain periods of intense campaigning, and other moments of fallow practice. Kreiss' work (2016), for example, has shown how in election campaigns in the US, many staff and much process dissipates after an election campaign, and is reconvened in the run up to the next contest. This means that a campaigner making a decision in the final days of the campaign uses data and analytics in a very different way compared to when making a decision months in advance of a deadline. Indeed, time pressure often leads data to be neglected, but it can also lead to a reliance on certain forms of data with limited oversight. Take, for example, a campaign placing online adverts. Ten weeks before election day the campaign place multiple alternative ads and use data to work out which media works, but also how different target groups respond to stimulus to guide wider strategy. In contrast, one week before the election, any data gathered is dismissed because campaigners do not have the time or capacity to evaluate ad analytics or to iterate ad content. Understanding the constraints and pressures evident around specific decisions can therefore be vital to grasping the way information is used.

Time can also play a role in another way, affecting how the same piece of data is interpreted by actors thinking about different time horizons. Imagine a campaign strategy meeting. In the room are two political advisors, one responsible for the immediate election campaign and another who has previously served as a policy advisor in government. Presented with polling data, these two individuals highlight different areas for prioritization and investment. The election advisor concentrates on the immediate election and viable strategies to victory, whilst the other focuses on long-term electoral and policy objectives. Each advances a different interpretation of the data that reflects their particular focus and perspective, leading to debate about what the data suggests, and which decision should be taken as a result.

Finally, I draw attention to the *political* context in which campaigns operate. Campaigns are staffed by people with political goals and objectives that guide their decision-making. Whether advancing a formal ideological agenda, a looser world view or a particular objective, previous research has shown that political leaders often make decisions within the confines of certain ideological commitments that shape their strategic positioning and decision-making (Buckler & Dolowitz, 2012; Budge, 1994). In practice this means that data is not viewed through a neutral lens, and decision-makers are unlikely to be willing to follow data in all circumstances. To give an example, it is challenging for a political party ideologically committed to environmental protection to follow focus group data signaling the appeal of investment in fossil fuels and cuts to carbon emission targets. In such an instance the incongruence between a piece of data and the campaigners' ideological objectives can disrupt the translation of this data into practice and lead other influences to prevail. The preconceived goals and ideas of campaigners can therefore exert an influence on how data is interpreted and whether it is actioned.

It is also likely that campaigners will vary in the degree to which they have political or ideological constraints. Imagine two parties trying to decide which issues to prioritize in their election messaging. Each party has access to extensive national polling which shows profound public interest in the cost of living and strong support for investment in public services. One party is newly established and has no pre-existing commitments. The other is well-established with longstanding policy commitments to tax cuts and individual responsibility. Both these parties are engaging in strategic decision-making guided by data, but they face different degrees of constraint derived from pre-existing commitments (Budge, 1994). The new party is more readily able to follow the data compared to the more established organization who are bound by pre-existing political commitments. The political views and preferences of individual decision-makers can therefore affect decision-making, as can the particular political circumstances in which a decision is made, making it vital to contemplate the politics at play.

Collectively, these examples suggest that the context of a particular decision can affect how and why data is used. Not all decisions are given the same weight, meaning that whilst some are relatively uncontroversial, others are more contentious or weighty and hence are subject to more scrutiny. Organizational and time factors can affect the dynamics of data use, and political factors can affect how decisions are viewed and information is consumed and contested. Importantly, these factors not only affect the decision, but can also inform the process of evaluation, as the degree to which it is deemed necessary to interrogate and learn lessons from campaign actions will depend on the purpose, organizational capacity, available time and political will. Context therefore matters for how and why data is used, and whether evaluation occurs, making the moment and site of decision-making and evaluation important considerations.

Campaign action

So far, attention has focused on the "input" side of the decision-making process, but it can also be the case that the translation of data into campaign actions can also affect decision-making. Whilst campaigns often use data to inform their own activity, they are also increasingly reliant on external architectures, such as social media advertising (Bossetta, 2018), that affect the actions that can be taken.

Whilst these external tools provide a range of targeting options and delivery mechanisms, the "fit" between the data held by a campaign and that available for a campaign action may not always be found. Take, for example, online targeting. Platforms such as Meta's advertising archive provide a range of targeting parameters, but these are not always neatly aligned with campaign goals, and indeed in many contexts there are now constraints on the targeting parameters that campaigns can select. Meta, for example, removed "detailed targeting" related to health, race or ethnicity, political affiliation, religion or sexual orientation, making it harder to reach people with certain political views or ethnic backgrounds (Meta, n.d.). Other studies have shown that even where criteria are available, the algorithms delivering campaign messages to a chosen audience can be biased. Research by Ali et al., for example, has shown that Facebook's algorithms "limits political advertisers" ability to reach audiences that do not share those advertisers' political views' (2021, p. 20).

These examples indicate that the decisions made by campaigners may be influenced not only by data inputs and the particular context of the decision, but also by the affordances and availability of tools able to enact their decision. It can therefore be that campaign data and analytics convince decision-makers to target a particular group of ethnic minority voters, but the lack of delivery mechanism prevents that decision from being enacted. This suggests the importance of investigating how campaigners understand and interpret available delivery mechanisms and their compatibility with campaign goals.

Summary

Cumulatively, this discussion foregrounds the contextual, agential and organizational considerations that can inform decision-making and the role of data therein. Outlining a range of intervening factors which can affect whether and how different forms of data are used in decision-making and inform campaign action, this section aims to account for how and why data can feature in campaigns in a diverse range of ways. Such questions are important for considering not only the nature of contemporary campaigns, but also for thinking about historic and future campaign dynamics. To facilitate such analysis it becomes important for scholars to understand more about how and why certain campaign decisions are made.

The case for qualitative analysis

In contending the need to understand more about the way in which data is produced, consumed and viewed by decision-makers within campaigns, this analysis signals the need for ethnographic, observational qualitative research. As mentioned at the outset of this article, such observation has proved challenging for scholars to date as campaign decision-makers can be unwilling to grant access, especially to elite decision-making forums. Yet, there are precedents for this form of analysis. Fenno (1998), Nielsen (2012), Parker (2014) and Van Duyn (2021), for example, have employed ethnographic methods to study the dynamics of campaign activity, suggesting that whilst not all sites of campaign decision-making may be accessible, there are some forums in which it is possible to observe how data is used by campaigners. These techniques, alongside interviews and focus group methodologies, are particularly suitable for addressing questions such as: "how do campaigners assess the quality and value of different data sources?," "how are contradictory data insights reconciled?," "who is present when decisions are made?," "how does data use vary over time?," "how do political considerations feature in decision-making?," and "do delivery mechanisms inform the choices made?"

In addition to such descriptive insights, qualitative methods can also be used to advance efforts to further understanding of the causal drives behind different data-driven campaign practices. Recent scholarship has turned attention from the description of data-driven campaign inputs and outputs, to theorize how regulatory, systemic and party-level factors may affect the specific manifestation of campaigning (Dommett et al, 2024a; Kruschinski & Haller, 2017; Segesten & Sandberg, 2024). Qualitative methods could be used to generate further insight into the impact of these questions by asking: how do campaigns perceive and operationalize regulatory guidelines? How are resources distributed

within the campaign? And how is the value of (different types of) data understood? Whilst documentary analysis can provide some clues, ethnographic and observational approaches can also reveal how these dynamics are manifest in practice, helping to test theoretical expectations about why campaigns use data in different ways. These questions help advance not only our understanding of contemporary campaigns by revealing how these considerations interact and inform decisions, they are also valuable in thinking about the past and, of particular interest to this piece, the future of campaigns.

Predicting the future of campaigns

As detailed above, in recent years there has been speculation about the potential for campaigning to become increasingly automated in nature because of the advent of data-driven campaigning (Römmele & Gibson, 2020; Safiullah & Parveen, 2022). Whilst just one possible envisaged future, the above discussion can facilitate an analysis of the likelihood of this outcome by allowing comparison of decision-making practices and the requirements for automation.

In thinking about the potential for automation specifically we can begin by considering the type of decision amenable to automation. As described by Davenport and Harris, this type of decision is possible "[i]f experts can readily codify the decision rules and if high-quality data are available," noting that automation is particularly suited to decisions that are made "frequently and rapidly, using information that is available electronically" (2005, p. 84). If viewing parties as the custodians of data (understood as a relatively uniform and complete source of information) that is analyzed to inform decisions, then automation appears feasible, especially where that data is high quality, where clear analytical protocols exist and where numerous, high-speed decisions are required. And yet, as the above discussion suggests, there are contextual, agential and organizational factors that need to be taken account when evaluating the likelihood of this outcome in electoral campaigns.

A plurality of different data is often available for decision-making that is not always complete, accurate or intelligible, meaning "high quality" data is by no means readily available. The above discussion has also revealed that data is not always subject to analytics processes, and that "readily codified" rules for analysis do not always exist. Meanwhile, decisions are not always made frequently and rapidly, as this can be affected by the purpose of the given decision, the organizational position of the actor taking the decision, time factors and political considerations. These factors can also affect how data and analytics are interpreted, creating different sensitives which may lessen campaigners' willingness to adopt automated methods. Even where data is available and contextual, agential and organizational factors promote the uptake of data insights, delivery mechanisms may be more or less amenable to automated decision-making, with different platforms requiring varying degrees of human oversight and enabling different analytical tools to be embedded and deployed. This suggests that decision-making within campaigns is unlikely to be automatically amenable to automation because of the range of potentially disrupting factors.

And yet, it is possible to identify certain types of decision, made in specific contexts, that are potentially more compatible with automated decision-making. Take, for example, routine operational decisions made by party staff, such as deciding on the content of fundraising emails. In this example the data is likely to be relatively uniform and high quality—composed of feedback on the number of email open rates and the number of individuals who then chose to click and donate funds. For this example, there are also likely to be clear analytical protocols, with A/B testing used to compare how differently formatted or titled emails fare in maximizing user donations. These attributes appear amenable to automation. Considering the other influences on decisions documented above, it could be expected this decision is most likely to be automated when used by campaign elites as opposed to grassroots activists, because of the skill and expertise possessed by this group. It is also likely that such methods would be more readily adopted in the early stages of a campaign as opposed to in the final weeks—because time pressures may make the utility of optimization less of a priority in the final stages of a campaign. It would also be enabled where campaigns have access to email platforms that can embed A/B testing.

In contrast, automated decision-making would be less likely in the following scenario. Consider a campaign leader needing to make a decision about their campaign's position on nuclear power. They have access to multiple data and analysis that are of varying quality, but are nevertheless deemed important to consider when making the decision. It is not entirely clear which outcome is sought and which imperative should be paramount in taking the decision, making it challenging to identify clear decision-making rules. In terms of context, the decision itself is controversial, being the subject of ongoing argument between different ideological factions within the campaign, and the time pressure is intense, meaning there is not a lot of time to weigh evidence or develop clear codified principles on which to make the decision. In such a situation, automation is unlikely to occur because the attributes of data and analytics do not align with automation requirements and there are wider contextual considerations that affect the perceived desirability of this mode of decision-making.

In this way, the analysis offered in this article can facilitate reflection on the ways in which data is actually used within campaigns. Spotlighting the plurality of data and the role of agential, organizational and contextual factors in informing whether or how that data is used in practice, it becomes possible to explain why automation is likely to emerge in certain situations, but is unlikely to define the full range of campaign activities. Of course, empirical observation will be required to test the influences detailed here, but this approach helps to ground expectations of the future of campaigning in a clearer conceptual account of how decisions are made.

Conclusion

In this article I set out to interrogate the decision-making component of data-driven campaigning, seeking to offer a theoretical account to explain the differential data-consumption practices evident within modern election campaigns. Highlighting a range of contextual, agential and organizational influences, I interrogated the nature of data and analytics and isolated a range of potential influences on decision-making, Specifically, I sought to foreground the diversity of data, the dynamics of decision-making, the attributes of decision-makers and the characteristics of delivery mechanisms to build a richer understanding of how choices are made. Presenting these ideas, I call for empirical analysis of the decision-making process, emphasizing the importance

of qualitative methods in helping to articulate how data is viewed and consumed, and how particular circumstances and external considerations inform decisions at specific points in time. Outlining a series of questions for future analysis, I call for future scholarship to more closely interrogate the idea that data "drives" decisions. Such analysis is vital for attempts to understand the future trajectory of campaigns. Engaging with debates about the potential for automated campaigning, I employ these ideas to suggest that automated campaign decision-making is by no means inevitable and is unlikely to characterize all campaign decision-making. Comparing the facilitators of automation with my conception of campaign decision-making, I argue that the conditions required for automation are not often present, but that in certain circumstances this mode of operation may emerge. Cumulatively this article serves to address the gap in existing literature on data-driven campaigning about decision-making, explaining why data may not always "drive" decisions in the manner often presumed.

Data availability

No new data were generated or analysed in support of this research.

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1 The examples presented here draw on observations and interviews conducted in different countries. Due to data sharing restrictions, direct examples could not be reproduced in this piece. This approach has the advantage of allowing insights from different national contexts to be combined to provide examples able to speak to more than one national context.

2 To clarify, in this example, there is an important distinction between Voter ID or questionnaire based responses from voters which represent a rigorous mode of data collection, and impressionistic insights formed by canvassers about how a particular message may have been received. In this example I am referring to the latter.

3 Most manuals of electoral campaign management call for an elite team composed of campaign manager, candidate, and then Directors of different departments such as fundraising, communications, data, political, field and digital (Clouston, 2019).

References

Aberbach, J. D., Chesney, J. D., & Rockman, B. A. (1975). Exploring elite political attitudes: some methodological lessons. *Political Methodology*, *2*, 1–27. http://www.jstor.org/stable/25791403

Ali, M., Sapiezynski, P., Korolova, A., Mislove, A., & Rieke, A. (2021). Ad delivery algorithms: The hidden arbiters of political messaging. Proceedings of the 14th ACM International Conference on Web Search and Data Mining, 13–21. https://doi.org/10.1145/3437963.3441801

Anderson, C. (2008). The end of theory: The data deluge makes the scientific method obsolete. *Wi red Magazine*, *16*. https://www.wired.com/2008/06/pb-theory/

Anstead, N. (2017). Data-driven campaigning in the 2015 United Kingdom general election. *The International Journal of Press/Politics*, *22*, 294–313. https://doi.org/10.1177/1940161217706163

Baldwin-Philippi, J. (2017). The myths of data driven campaigning. *Political Communication*, *34*, 627–633. https://doi.org/10.1080/10584609.2017.1372999

Baldwin-Philippi, J. (2019). Data campaigning: Between empirics and assumptions. *Internet Policy Review*, *8*, 1–18. https://doi.org/10.14763/2019.4.1437

Baldwin-Philippi, J. (2024). Data-driven maintaining: The role of the party and data maintenance in the US context. *Media and Communication*, *12*, 1–16. https://doi.org/10.17645/mac.8735

Batini, C., & Scannaieco, M. (2006). *Data quality: Concepts, methodologies and techniques*. Springer. https://doi.org/10.1007/3-540-33173-5

Berger, A., Schneier, B., Gong, E., & Sanders, N. (2024). *Using AI for political polling*. Harvard Ash Centre. https://ash.harvard.edu/articles/using-ai-for-political-polling/

Blumler, J. (2016). The fourth age of political communication. *Politiques de Communication*, *N° 6*, 19–30. https://doi.org/10.3917/pdc.006.0019

Bolleyer, N. (2012). New party organization in Western Europe: Of party hierarchies, stratarchies and federations. *Party Politics*, *18*, 315–336. https://doi.org/10.1177/1354068810382939

Bossetta, M. (2018). The digital architectures of social media: Comparing political campaigning on Facebook, Twitter, Instagram, and Snapchat in the 2016 US election. *Journalism & Mass Communication Quarterly*, *95*, 471–496. https://doi.org/10.1177/1077699018763307

Bossetta, M., & Schmøkel, R. (2023). Cross-platform emotions and audience engagement in social media political campaigning: comparing candidates' Facebook and Instagram images in the 2020 US election. *Political Communication*, *40*, 48–68. https://doi.org/10.1080/10584609.2022.2128949

Buckler, S., & Dolowitz, D. (2012). Ideology matters: Party competition, ideological positioning and the case of the conservative party under David Cameron. *The British Journal of Politics and International Relations*, *14*, 576–594. https://doi.org/10.1111/j.1467-856X.2011.00482.x

Budge, I. (1994). A new spatial theory of party competition: Uncertainty, ideology and policy equilibria viewed comparatively and temporally. *British Journal of Political Science*, *24*, 443–467. https://doi.org/10.1017/S0007123400006955

Chaterjee, M. (2024). *What AI is doing to campaigns*. Politico. https://www.politico.com/news/2024/08/15/what-ai-is-doing-to-campaigns-00174285

Davenport, T. H., & Harris, J. G. (2005). Automated decision making comes of age. *MIT Sloan Management Review*, *46*, 83–89.

Dommett, K., Kefford, G., & Kruschinski, S. (2024a). *Data-driven campaigning in political parties: Five advanced democracies compared*. Oxford University Press. https://doi.org/10.1093/oso/9780197570227.001.0001

Dommett, K., Barclay, A., & Gibson, R. (2024b). Just what is data-driven campaigning? A systematic review. *Information, Communication & Society*, *27*, 1–22. https://doi.org/10.1080/1369118X.2023.2166794

Dommett, K., & Power, S. (2021). Studying digital parties: Methods, challenges and responses. In O. Barbara, G. Sandri, P. Correa, & J. Roderiguez-Teruel (Eds.), *Digital parties: The challenges of online organisation and participation* (pp. 67–83). Springer. https://doi.org/10.1007/978-3-030-78668-7_4

Farrell, D. (1998). Political consultancy: The internationalization of campaign consultancy. *Political Science and Politics*, *31*, 171–176. https://doi.org/10.2307/420246

Fenno, R. F. (1998). *Senators on the campaign trail: The politics of representation*. University of Oklahoma Press. https://doi.org/10.2307/2998646

Figeac, J., Neihouser, M., & Le Coz, F. (2024). Data-campaigning on Facebook: Do metrics of user engagement drive French political parties' publications? *Media and Communication*, *12*, 1–15. https://doi.org/10.17645/mac.8487

Franz, M., Zhang, M., Ridout, T., Oleinikov, P., Yao, J., Cakmak, F., & Fowler, E. (2024). Quantifying data-driven campaigning across sponsors and platforms. *Media and Communication*, *12*, 1–19. https://doi.org/10.17645/mac.8577

Gibson, R., Bon, E., & Römmele, A. (2024). Operationalizing data-driven campaigning: designing a new tool for mapping and guiding regulatory intervention. *Policy Studies (Policy Studies Institute)*, *45*, 692–708. https://doi.org/10.1080/01442872.2023.2259333

Hanretty, C. (2020). An introduction to multilevel regression and post-stratification for estimating constituency opinion. *Political Studies Review*, *18*, 630–645. https://doi.org/10.1177/1478929919864773

Hersh, E. (2015). *Hacking the electorate: How campaigns perceive voters*. Cambridge University Press. https://doi.org/10.1017/CBO9781316212783

Karp, J. A., & Brockington, D. (2005). Social desirability and response validity: A comparative analysis of overreporting voter turnout in five countries. *The Journal of Politics*, *67*, 825–840. https://doi.org/10.1111/j.1468-2508.2005.00341.x

Karpf, D. (2018). Analytic activism and its limitations. *Social Media + Society*, *4*, 1–10. https://doi.org/10.1177/2056305117750718

Karpf, D., Kreiss, D., Nielsen, R. K., & Powers, M. (2015). Qualitative political communication| introduction∼ The role of qualitative methods in political communication research: Past, present, and future. *International Journal of Communication*, *9*, 1888–1906. https://ijoc.org/index.php/ijoc/article/view/4153

Kefford, G., Dommett, K., Baldwin-Philippi, J., Bannerman, S., Dobber, T., Kruschinski, S., Kruikemeier, S., & Rzepecki, E. (2023). Data-driven campaigning and democratic disruption: Evidence from six advanced democracies. *Party Politics*, *29*, 448–462. https://doi.org/10.1177/13540688221084039

Kriesi, H., Bernhard, L., & Hänggli, R. (2009). The politics of campaigning—Dimensions of strategic action. In F. Marcinkowski & B. Pfetsch (Eds.), *Politik in der Mediendemokratie* (pp. 345–365). VS Verlag für Sozialwissenschaften. https://doi.org/10.1007/978-3-531-91728-3_15

Kreiss, D. (2010). *Taking our country back?: Political consultants and the crafting of networked politics from Howard Dean to Barack Obama*. Stanford University. https://doi.org/10.1093/acprof:oso/9780199782536.001.0001

Kreiss, D. (2016). *Prototype politics*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199350247.001.0001

Kruschinski, S., & Haller, A. (2017). Restrictions on data-driven political micro-targeting in Germany. *Internet Policy Review*, *6*, 1–23. https://doi.org/10.14763/2017.4.780

Macintyre, A. (2020). Adaption to data-driven practices in civil society organizations: A case study of Amnesty *International. Journal of Information Technology & Politics*, *17*, 161–173. https://doi.org/10.1080/19331681.2019.1710645

McKelvey, F., & Piebiak, J. (2019). Does the difference compute?: Data-driven campaigning in Canada. In M. Lalancette, V. Raynauld, & E. Crandall (Eds.), *What's trending in Canadian politics?: Understanding transformations in power, media, and the public sphere* (pp. 194–215). University of British Columbia Press. https://doi.org/10.59962/9780774861175-014

Meta. (no date). *Removing certain ad targeting options and expanding our ad controls*. https://www.facebook.com/business/news/removing-certain-ad-targeting-options-and-expanding-our-ad-controls

Minihold, S., & Votta, F. (2024). Accepting exclusion: Examining the (un)intended consequences of data-driven campaigns. *Media and Communication*, *12*, 1–19. https://doi.org/10.17645/mac.8685

Munroe, K. B., & Munroe, H. D. (2018). Constituency Campaigning in the Age of Data. *Canadian Journal of Political Science*, *51*, 135–154. https://doi.org/10.1017/S0008423917001135

Nickerson, D. W., & Rogers, T. (2014). Political campaigns and big data. *Journal of Economic Perspectives*, *28*, 51–74. https://doi.org/10.1257/jep.28.2.51

Nielsen, R. K. (2012). *Ground wars: Personalized communication in political campaigns*. Princeton University Press. https://doi.org/10.1515/9781400840441

Pangrazio, L., & Selwyn, N. (2023). *Critical data literacies: Rethinking data and everyday life*. MIT Press. https://doi.org/10.7551/mitpress/14155.001.0001

Parker, D. C. (2014). *Battle for the big sky: Representation and the politics of place in the race for the US senate*. CQ Press. https://doi.org/10.4135/9781483396187

Pipino, L. L., Lee, Y. W., & Wang, R. Y. (2002). Data quality assessment. *Communications of the ACM*, *45*, 211–218. https://doi.org/10.1145/505248.506010

Richterich, A. (2018). *The big data agenda: Data ethics and critical data studies*. University of Westminster Press. https://doi.org/10.16997/book14

Ridout, T. (2024). Political advertising and data-driven campaigning in Australia. *Media and Communication*, *12*, 1–15. https://doi.org/10.17645/mac.8462

Römmele, A., & Gibson, R. (2020). Scientific and subversive: The two faces of the fourth era of political campaigning. *New Media & Society*, *22*, 595–610. https://doi.org/10.1177/1461444819893979

Ruppert, E., Isin, E., & Bigo, D. (2017). Data politics. *Big Data & Society*, *4*(2), 1–7. https://doi.org/10.1177/2053951717717749

Safiullah, M., & Parveen, N. (2022). Big data, artificial intelligence and machine learning: A paradigm shift in election campaigns. In S. Kumar Panda, R. Kumar Mohapatra, & S. P. S. Balamurugan (Eds.), *The New Advanced Society: Artificial Intelligence and Industrial Internet of Things Paradigm* (pp. 247–261). Wiley. https://doi.org/10.1002/9781119884392.ch11

Segesten, A., & Sandberg, L. (2024). Data-driven campaigning in data-dense small multiparty systems: A party-level analysis. *Media and Communication*, *12*, 1–17. https://doi.org/10.17645/mac.8634

Simon, F., & Altay, S. (2025). *Don't panic (Yet): Assessing the evidence and discourse around generative AI and elections*. Knight First Amendment Institute at Columbia University, https://knightcolumbia.org/content/dont-panic-yet-assessing-the-evidence-and-discourse-around-generative-ai-and-elections

Stevens, A. (2011). Telling policy stories: An ethnographic study of the use of evidence in policy-making in the UK. *Journal of Social Policy*, *40*, 237–255. https://doi.org/10.1017/S0047279410000723

Stuckelberger, S., & Koedam, J. (2022). Parties' voter targeting strategies: What can Facebook ads tell us? *Electoral Studies*, *77*, 102413–-102473. https://doi.org/10.1016/j.electstud.2022.102473

Van Duyn, E. (2021). *Democracy lives in darkness: How and why people keep their politics a secret*. Oxford University Press. https://doi.org/10.1093/oso/9780197557013.001.0001

Votta, F., Kruschinski, S., Hove, M., Helberger, N., Dobber, T., & de Vreese, C. (2024). Who does(n't) target you? *Journal of Quantitative Description: Digital Media*, *4*, 1–73. https://doi.org/10.51685/jqd.2024.010

Watts, S., Shankaranarayanan, G., & Even, A. (2009). Data quality assessment in context: A cognitive perspective. *Decision Support Systems*, *48*, 202–211. https://doi.org/10.1016/j.dss.2009.07.012

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https://doi.org/10.1093/ct/qtaf037
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