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EDITORIAL

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Editorial: Data-Driven Campaigning in a Comparative Context—Toward a 4th Era of Political Communication?

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Abstract

Contemporary political campaigning takes place both online and offline, and can be data-driven. In this piece, we review existing knowledge around data-driven campaigning (DDC) and introduce the new contributions made by the pieces within this thematic issue. We reveal how the studies included in this thematic issue of *Media and Communication* contribute to this existing knowledge by providing an up-to-date account of how DDC in general, and political microtargeting in specific, have been employed in election campaigns between 2021 and 2023, in a range of countries: France, Germany, the Netherlands, Sweden, and the US. As a collection, these studies highlight the variance that exists in the degree to which DDC is practiced, the range of DDC tools used, and attitudes toward DDC. In recent election campaigns, DDC takes many forms, and disapproval of DDC varies depending on how it is implemented.

Keywords

data-driven campaigning; digital campaigning; elections; microtargeting; personalisation; political advertising; political communication; public attitudes; targeting

1. Introduction

Digital technology has become an established part of election campaigning over the last decade. With an unprecedented number of elections happening internationally in 2024, this thematic issue provides important insight into our understanding of modern campaigning around the globe. Offering empirical insight from a range of different cases, in this thematic issue we take the opportunity to review what we mean by data-driven campaigning (DDC) and what we know about practice internationally.

The term "data-driven campaigning" can mean "significantly different things to different people within a campaign" (Baldwin-Philippi, 2019, p. 2) and scholarly understandings of DDC differ in terms of the activities that are involved and the particular practices that characterize it (Dommett, Kefford, & Kruschinski, 2024). Some have emphasized different activities as indicative of the phenomenon, citing the significance of campaigns being guided by data rather than instinct (Munroe & Munroe, 2018), voter targeting (Anstead, 2017; Brkan, 2020; Römmele & Gibson, 2020), and message testing (Baldwin-Philippi, 2019). Acknowledging the varying definitions of DDC, Dommett et al. (2023) synthesized existing work, defining DDC as follows:

> DDC relies on accessing and analysing voter and/or campaign data to generate insights into the campaign's target audience(s) and/or to optimize campaign interventions. Data is used to inform decision-making in either a formative and/or evaluative capacity, and is employed to engage in campaigning efforts around either voter communication, resource generation and/or internal organization. (Dommett et al., 2023, p. 2)

Given the copious amounts of data that has become available to political parties, in the last decade there has been a considerable amount of work on DDC. Initial work on the topic sought to describe apparently new trends and practices, such as microtargeting, message testing, and the curation of large data sets.

Other scholars have focused less on definition, and more on the notion of technologically driven change. While digital media has long been used for campaigning (Howard, 2005; Stromer-Galley, 2019), recently some scholars have suggested that "contemporary campaigning has entered a new technology-intensive era" (Kreiss, 2016, pp. 3–4). Some have diagnosed or examined the idea of a "fourth era" of election campaigning (Dommett, Power, et al., 2024; Römmele & Gibson, 2020) and others have suggested the advent of "computational politics" (Tufekci, 2014). The degree to which these practices are something "new" has been challenged with research noting the "continuity between emerging data-driven campaigning and older forms of electoral political communication" (Anstead, 2017, p. 296; Baldwin-Philippi, 2019; Kusche, 2020, p. 1). Therefore, for some scholars DDC is not "something inherently novel or only connected to new data sources and collection practices, but rather as a long-standing practice that has evolved over time to incorporate new data forms" (Dommett, Kefford, & Kruschinski, 2024, p. 43).

As with any technological developments, many accounts have sought to emphasize the dangers of these tools and the potential democratic implications of DDC (Zuiderveen Borgesius et al., 2018). Concerns about DDC have been raised about voter surveillance and profiling (Burkell & Regan, 2019; IDEA, 2017; in 't Veld, 2017; Kusche, 2020; Nadler et al., 2018). There have also been concerns about microtargeting leading to the erosion of shared democratic debate and information (Gorton, 2016; Judge & Pal, 2021), and the neglect of specific voter groups (Bodó et al., 2017, p. 5; Kusche, 2020, p. 5; Rubinstein, 2014, p. 936).

To assess whether these fears reflect actual practice, researchers have made a range of empirical interventions designed to expose the practice of DDC. First, we now have a range of single-country case studies documenting how data is being used. There is extensive coverage of the US case (Hersh, 2015; Kreiss, 2012, 2016; Nielsen, 2012), as well as some contributions that cover Australia (Kefford, 2021), Austria (Barclay et al., 2024), Canada (Munroe & Munroe, 2018), Germany (Clemens, 2018; Jungherr, 2016; Kruschinski & Haller, 2017), and the UK (Anstead, 2017; Barclay et al., 2024; Dommett, 2019). More recently, some comparative analysis has emerged which aims to document, interrogate, and explain the nature of DDC. Some studies have continued to rely on interviews and observation, with Kefford et al. (2023) studying practice in six countries, and Dommett, Kefford, and Kruschinski (2024) using interviews with over 300 campaigners in five countries to theorize variation across five countries. Others have relied on other data, with Votta et al. (2024) exploiting newly available data from Meta to map the practice of DDC at scale. Elsewhere, Vliegenthart et al. (2024) conducted a large-scale experimental study of attitudes in 28 countries. In a different approach to inquiry, we also have survey-based studies reporting insights into public attitudes toward DDC (Gahn, 2024; Vliegenthart et al., 2024). This work has examined attitudes to data and the impact of microtargeting on voter attitudes and voting behavior (Gibson et al., 2024; Kozyreva et al., 2021; Turow et al., 2012).

Cumulatively, this work has revealed much about DDC, showing it not to be novel or homogenous. Rather, in different contexts, campaigns integrate new technologies that are deployed in heterogeneous ways to advance their specific goals. Moreover, these practices are not seen by citizens to be inherently problematic. These findings suggest that, rather than being a clear threat to democracy, DDC can be enacted in ways that are more or less problematic (Dommett, Kefford, & Kruschinski, 2024). While this existing work has helped to establish DDC as an object of analysis the continually evolving nature of technology and the advent of new elections (which are often a site of innovation) means that ongoing study remains vital. This thematic issue sets out to update our existing understanding with a range of new insights.

2. The Articles in This Thematic Issue

The studies in this issue go beyond earlier work on DDC in providing up-to-date insight into the adoption, implementation, and reception of DDC. The articles include studies of individual countries including France, Germany, The Netherlands, Sweden, and the US, as well as a cross-country comparative analysis of public acceptance of personal data use in microtargeting.

In this section, we group these articles into two key themes: DDC in practice, and public attitudes toward political microtargeting.

2.1. DDC in Practice: Adoption and Implementation

Starting with the case most studied in contemporary accounts of DDC, Franz et al. (2024) and Baldwin-Philippi (2024) revisit and update our understanding of DDC in the context of US parties and elections. Franz et al. (2024) develop an innovative new measure of DDC sophistication based on the extent of uniqueness or tailoring associated with the ads produced by a campaign. Initial results prove significant with higher campaign resources predicting a greater tailoring of ads. Electoral context also matters: Ads are more likely to be tailored for Senate seats and when the race is closer. Finally, the party proves to be

significant with greater tailoring occurring among Democrats and those backing Democrats. Although this first application is restricted to the case of the US, it is clear the measure has wider comparative utility. Baldwin-Philippi's (2024) account similarly seeks to revise and reconceive DDC by highlighting how US scholarly and media accounts have focused almost exclusively on the activities undertaken among candidate campaign teams, overlooking the more mundane but vital work of party organizations to collate, maintain, and analyze data. In restoring that balance her article sets the scene for the European studies of DDC that follow which take a more party-centric approach.

Segesten and Sandberg (2024), Ridout (2024), Fitzpatrick and von Nostitz (2024), and Figeac et al. (2024) study the general implementation of DDC and the use of specific DDC techniques in other nations: Sweden, Australia, France, and Germany. Using interviews with campaign managers, Segesten and Sandberg (2024) show that campaigns' use of DDC is linked to both resources and structure. More professionalized and centralized campaigns are more able to leverage data insights to inform strategies. Notably the three top DDC adopters in the Swedish party system are also the richest. Like Segesten and Sandberg, Ridout (2024) uses interviews with campaign officials. Studying Australian parties' use of DDC, he finds that differences in resources, campaign philosophies, and uncertainties about data translate into considerable variation in DDC. For example, he finds that parties who have more campaign resources are more likely to tailor ads. He concludes that many Australian campaigners do not engage in sophisticated DDC because of insufficient resources, the belief that distributing a single message widely is important, and a lack of confidence in the quality of the obtainable data.

Looking at the use of DDC on social media more closely, Fitzpatrick and von Nostitz (2024) and Figeac et al. (2024) examine their cultivation by parties on two different platforms in two major European democracies—Germany and France. Fitzpatrick and von Nostitz (2024) shed light on the use of Google ads during the 2021 German Bundestag election. Their results show that all German political parties with federal representation made use of Google ads in the campaign, but that this use varied. While most parties used text-based ads the least, the Alternative für Deutschland (AfD) and Freie Demokratische Partei (FDP) relied on images and videos. Furthermore, they find that the parties did not target individuals based on gender and only somewhat in terms of age, indicating that the parties did not use microtargeting fully. Figeac et al. (2024) take a somewhat different approach and examine the content of political parties' Facebook posts during the 2022 French parliamentary elections. Given the heavy restrictions on targeted advertising in French election campaigns, they conceive of DDC in a more "bottom-up" light, whereby parties' issue foci during the campaign are driven by the online response to their social media content. They find that parties are not particularly sensitive or responsive to their audience feedback. Instead, they tend to post on issues that they are widely regarded to "own" and are less concerned with shifting to popular preferences or appealing to a specific subpopulation with fine microtargeting strategies.

2.2. Public Attitudes Toward Political Microtargeting

Three articles in this thematic issue take a different focus, studying the reception rather than adoption of DDC to advance our understanding of public attitudes towards political microtargeting. First, Noetzel et al. (2024) use a gaze-cued study to create a typology of citizens' coping behavior with political microtargeting. They find that most individuals seemed to know little about political microtargeting, and that the majority guard themselves against being persuaded by microtargeted messages. Second, Bon et al. (2024) use cross-national

survey data, finding that the extent to which personal data use is deemed acceptable depends on the type of data used (private or non-observable), the demographic aspect that the data relates to (e.g., age or gender), and national context. For example, in Germany, the use of religion for microtargeting is frowned upon. Finally, Minihold and Votta (2024) combined Meta ad-targeting data and survey data to study how political parties use citizens' data to exclude them. They find that few parties explicitly exclude specific citizens, and that citizens perceive the exclusion of others based on their characteristics to be unacceptable, especially when they are excluded because of their migration background. Taken together, these three articles indicate that citizens are not fully opposed to microtargeting. Instead, they oppose the use of specific data for targeting them or for excluding certain demographics.

Overall, this thematic issue advances our understanding of the adoption of DDC and public attitudes towards DDC across national party systems, highlighting variation both across and within countries.

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Conflict of Interests

The authors declare no conflict of interest.

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ARTICLE

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Political Advertising and Data-Driven Campaigning in Australia

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Abstract

There have been breathtaking accounts of the use of data in political campaigns for microtargeting and message testing, among other practices. Most of these examine presidential campaigns in the US. But evidence speaking to the use of data-driven campaigning (DDC) beyond the US is rather thin. Here I examine the use of DDC in Australia, focusing on political advertising specifically. I interview 15 campaign practitioners, asking about several indicators of DDC, including (a) the extent of ad targeting, (b) tailoring of ads to specific audiences, (c) the use of data analytics in ad targeting/tailoring, (d) efforts at online fundraising, and (e) ad testing. I find considerable variation in the use of DDC that stems from differences in resources, different campaign philosophies, and uncertainties about the data. I also find an important role for marketing agencies in supplementing DDC capabilities.

Keywords

Australia; data-driven campaigning; elections; political advertising

1. Introduction

There is much hype surrounding the use of data by political campaigns. One cannot help but be impressed by the thousands of data points on millions of voters that campaigns maintain, the use of massive, randomized control trials, and sophisticated models that help to optimize the placement of political messages. One example of reporting in this genre, Issenberg's (2012) *The Victory Lab*, took the reader inside the Obama presidential campaign in the US to see how data were being used. One might assume that the use of data in making campaign decisions would be commonplace now and that all campaigns would be racing to get on the data bandwagon. Yet research on the extent to which campaigns exhibit these data-driven practices is thin and has

not explored many contexts, such as poorly-resourced sub-national races or races outside the US and a few other countries. To shed light on the extent to which data-driven campaigning (DDC) is practiced, I examine the use of data in campaigns in Australia, a country in which we might expect to find at least some DDC given no government limits on campaign spending, the exemption of registered political parties from privacy laws, and the existence of campaign professionals who have often honed their skills in the UK and the US.

To make my focus on DDC more manageable, I focus on DDC practices relating to online political advertising, largely ignoring how DDC has been applied in field operations or in television or radio advertising. By focusing on online advertising, I am able to make direct comparisons across campaigns.

Several important insights emerge from my interviews with campaign practitioners. First, there exists considerable variation in the use of DDC practices. This variation, to be sure, stems from differences in resources across parties and specific campaigns, but it also stems from different campaign philosophies. Some campaigns stress the importance of more sophisticated DDC practices, such as targeting and tailoring messages, while others doubt that these practices work. Moreover, there are also differences in the confidence that campaigners have with the available data. Second, there is an important role for external campaign consultants who can provide access to sophisticated data-driven campaign techniques even when the party infrastructure is lacking. Finally, Australian campaigns are not moving unidirectionally toward more sophisticated use of data in making campaign decisions. In fact, some campaigns have backed away from such practices.

2. What is DDC?

As Dommett et al. (2023) indicate, definitions of DDC vary and are not always explicitly stated. The authors' review of 80 different studies on DDC results in the following definition:

> DDC relies on accessing and analyzing voter and/or campaign data to generate insights into the campaign's target audience(s) and/or to optimize campaign interventions. Data is used to inform decision-making in either a formative and/or evaluative capacity, and is employed to engage in campaigning efforts around either voter communication, resource generation and/or internal organization. (p. 2)

Importantly, to make their definition applicable across country contexts, they do not name specific campaign practices but focus on the use of data to inform campaign decision-making and practices. One could, for instance, engage in ad targeting based on "gut feeling" as opposed to ad targeting informed by data, or one could gather campaign data but not use it for making decisions. Neither would be considered DDC.

Others, however, suggest that certain campaign practices are indicative of DDC or "data campaigning." For instance, Baldwin-Philippi (2019) writes: "At the most overarching level, data-campaigning involves two genres of practice: targeting and testing" (p. 3). Of course, it is not guaranteed that a campaign that engages in ad targeting exploits campaign data. Still, it is likely that insights from data feed into targeting decisions, and it seems likely that a campaign that tests messages will use those insights when making decisions about which messages to use.

The Dommett et al. (2023) definition, which focuses on the use of data to inform decision-making, strikes me as the gold standard, but it also encompasses a wide variety of campaign practices. Thus, I think it useful to think of DDC on a continuum from less to more sophisticated. At the low end are practices that have existed for decades, such as contacting people who live in certain neighborhoods because government statistics show that people in that neighborhood voted a certain way in the previous election. At the high end of the sophistication scale are the practices discussed by Baldwin-Philippi (2019) that are relatively new, such as modeling likelihood of persuasion scores at the individual level based on institutional and consumer data—and using those scores to inform which individuals will be targeted with tailored ads online—or testing ad effectiveness with a large-scale experiment.

3. DDC Globally

Much of the initial research on DDC came from the US. Indeed, over two-thirds of the sources reviewed by Dommett et al. (2023) examined DDC in the US. Among the remaining studies, several discuss DDC in the UK and the rest of Europe, with only one case from the Global South. Thus, conclusions about the contours of DDC may depend largely on its practice in US presidential campaigns that spend hundreds of millions of dollars. But do such descriptions adequately describe politics elsewhere, where spending is inevitably much less, and where campaign infrastructure and rules on data privacy differ?

Recent research by Dommett et al. (2024) compares the role of data, the use of analytics, the use of technologies in campaigns, and the role of personnel in DDC across five countries: Australia, Canada, Germany, the UK, and the US. The authors find several differences in how DDC is practiced, with variation across the system level, the regulatory level, and the party level.

Anstead's (2017) deep dive into the 2015 election in the UK also finds considerable variation across parties in the use of DDC. The Conservatives were similar to the US parties in their use of microtargeting, but the Labour Party used segment-based targeting, and the smaller parties "lag far behind" when it comes to targeting (p. 307). Another study, focused on campaigning for the European parliament in 2019, concludes that "only a few parties leverage sophisticated targeting strategies" (Kruschinski & Bene, 2022, p. 43).

Although the US supposedly represents the most sophisticated use of DDC, even research conducted on US campaigns sometimes takes a more skeptical view of how ingrained DDC is. For instance, Baldwin-Philippi (2017) points out that the 2016 Trump presidential campaign did not take full advantage of DDC, especially when it came to the use of testing email messages. And Hersh (2015) argues that the data that American campaigns use to make targeting decisions are often based on public records, which vary by state in their extent and quality.

Given existing, albeit limited, research, we should expect to find variation in DDC practices—not only at the country and party level but also at the campaign level.

4. DDC in Australia

Australia holds federal elections about every three years for all seats in the House of Representatives and half the seats in the Senate. House and Senate elections do not always take place on the same

day but often do. Australia has six states that hold legislative assembly elections on fixed dates every four years.

The two largest political parties are the center-left Labor Party and the center-right Liberal Party. The Liberals have long been in coalition with the smaller National Party. The Australian Greens, as of March 2024, have four seats in the 151-member House and 11 of 76 seats in the Senate. Although not forming a political party, several independents had electoral success in the House in 2022. These candidates, typically centrists who focused on addressing climate change, were labeled Teals or Teal Independents.

One might think that DDC should thrive in Australia given a very "hands-off" regulatory environment. Limits on campaign spending do not exist, and registered political parties are exempt when it comes to data privacy protections in the Privacy Act of 1988. Moreover, parties regularly make use of new technologies and import the latest campaign practices from countries like the US and the UK. Hughes and Dann (2009) highlight the ties between Australian and US political parties and suggest that parties in the US will sometimes "beta test" techniques in Australia before using them in a presidential campaign.

At the same time, there are elements of the Australian context that push back at the idea that DDC should be common. Although parties receive public funding and are free to spend as much as they want, resource constraints are real. In the year prior to the 2022 federal election, the Liberal/National coalition spent $132 million (about $85 million USD), and Labor spent $116 million (about $75 million USD; Griffiths & Chan, 2023).

In fact, the most important recent study to examine political campaigns in Australia suggests that only one of the major political parties engaged in a more sophisticated type of DDC. Kefford (2021) conducted over 150 interviews with party officials, party volunteers, and campaign consultants and concluded that "Labor is the only party in the Australian party system that currently employs a set of practices and processes consistent with data driven campaigning" (p. 53). He suggests that the Liberal Party has not copied Labor because they are able to win at the federal level without investing in DDC and because of the difficulty of getting the federal party and state party divisions to agree to invest in building a customer relationship management system. The Liberals are better described as pursuing a "narrowcasting" model of campaigning (p. 168) as opposed to a data-driven one. The Greens, on the other hand, campaign through community organizing—by knocking on a lot of doors. Of course, one might gather data to inform campaign decision-making through door-knocking, but the Greens have not invested in some of the more recent manifestations of DDC, such as data analytics and predictive modeling that informs targeting.

Kefford's (2021) research in Australia—along with limited research conducted outside the US—suggests that variation across parties is to be expected when it comes to the use of DDC practices. I thus proceed with two central research questions: First, to what extent are various elements of DDC that relate to online advertising evident in Australian political campaigns? Second, what explains variation across not just parties but individual campaigns in the use of DDC?

5. Methods

I collected data through semi-structured interviews conducted between March and August of 2023. I conducted 15 interviews with people engaged in electoral campaigns in Australia at the federal or state

level. Four interviews were conducted in person, and the remainder were conducted over Zoom. Interviews ranged from 30 minutes in length to over 90 minutes, with most lasting about one hour.

I granted interviewees anonymity and did not make audio or video recordings of the interviews, instead taking detailed notes by hand or on a laptop computer during the interviews. Immediately after each interview, I reviewed my notes and "fleshed out" what was said. This choice results in tradeoffs. Writing about semi-structured interviews with political elites, Peabody et al. (1990, p. 452) note that "some political elites may be reluctant to talk 'for the record,' even if anonymity is assured. Generally speaking, the more sensitive and personalized the information, the less appropriate is the use of a tape recorder." Of course, by not taking a direct recording of the interview, I cannot ensure the completeness of each transcript. My hope was that by taking contemporaneous notes, interviewees would be comfortable speaking freely and that I would be able to capture the important details. Thus, while the quotations I provide may not be exact quotations, they should accurately represent the tenor of the conversation.

I relied on snowball sampling to obtain interviews, starting with three scholarly contacts in Australia. Table 1 provides the date of each interview, the parties on whose campaigns the individual had worked, and a brief description of the individual's experience. Five interviewees had primarily worked for a political party, seven had primarily worked for a political consulting agency, and three had worked extensively for both a party and an agency. Most interviewees had worked for only a single party, but a few had worked for clients from multiple parties. Labor was best represented, with 10 interviewees having worked for the party. Four had worked for Greens, two had worked for Liberals, and two had worked for independent (Teal) candidates in 2022. Because Labor-affiliated individuals are overrepresented and Liberal-affiliated individuals are

Table 1. Description of interviewees.

Interviewee Number	Date	Party	Experience
1	March 29, 2023	Labor	State party staff; agency consultant
2	April 27, 2023	Liberal	Digital advertising specialist working for agency
3	May 23,2023	Labor	Agency consultant on state party campaign
4	May 29, 2023	Greens	State and federal party campaign staffer; advocacy group organizer
5	June 5, 2023	Labor	Senior-level employee at national headquarters
6	June 7, 2023	Labor	Agency consultant on state party campaign
7	June 7, 2023	Greens	Senior-level digital campaign marketer for national party
8	June 8, 2023	Greens	Digital campaign staff for state and national parties
9	June 29, 2023	Teal, Labor	Senior-level consultant working for agency
10	June 29, 2023	Labor	Digital ad strategist at agency
11	July 7, 2023	Labor	Agency consultant on state campaign
12	July 10, 2023	Labor	Senior-level employee at national headquarters
13	July 12, 2023	Labor	Agency consultant; party communications specialist
14	July 17, 2023	Liberal	Agency consultant; senior-level party staffer
15	August 24, 2023	Teal, Labor, Greens	Senior-level agency consultant

underrepresented relative to their numbers in elective office, I refrain from making sweeping claims about party differences, instead focusing on variation across campaigns.

In developing my list of interview questions, I took a deductive approach. I reviewed the literature on DDC, identifying practices related to the use of online political advertising that are commonly data-driven. I identified five areas, including (a) the extent of ad targeting, (b) the extent to which ads are tailored to specific audiences, (c) the use of data analytics in ad targeting/tailoring, (d) efforts at online fundraising, and (e) ad testing. One of these speaks directly to the use of campaign data (i.e., the use of data analytics), while four are campaign practices that are generally, though not always, informed by the use of data. My interview questions tap each of these five areas (a full list of interview questions is found in the Supplementary File). I also asked about the gathering of data, but because data gathering is generally antecedent to the various data-driven practices and is touched on in my discussion of those practices, I did not discuss it in a separate section.

I created a grid with an identifier for each interviewee and relevant portions of each interviewee's responses pertaining to each of the five elements, allowing me to easily see and summarize people's responses to each element of DDC. I aim not to identify deeper themes that emerge from the transcripts, as one would with thematic analysis (Braun & Clarke, 2022), but to describe.

6. Elements of DDC

6.1. Ad Targeting

The extent to which Australian campaigns engage in targeting runs from minimal to hyperspecific targeting based on sophisticated modeling of the electorate. Most basically, campaigns were targeted geographically, with the national parties focused on swinging electorates. But demographic characteristics were also important in segmenting voters. For instance, age was mentioned by several interviewees. One Green indicated that the party never contacted anyone over age 60 (Interview 4), and both a Green and a Labor-affiliated individual talked about specific campaigns aimed at 18–24-year-old voters (Interview 7, 11). Gender was also mentioned as a targeting criterion (Interview 1, 15). In one state, the campaign found that the issue of government privatization resonated much better with men than women, and so ads on that issue were targeted at men (Interview 15).

Other interviewees talked about engaging in more specific targeting by using Meta's custom lists, whereby the campaign could provide a list of emails to which Meta would link its users (Interview 7). Another listed the use of Meta's lookalike audiences, whereby the campaign requested that its ads be shown to custom audiences and those that looked similar to those audiences (Interview 8). Another interviewee reported having good results on the Meta platforms by using fairly narrow audience segments, such as healthcare workers, those interested in the environment, parents, and pro-animal groups (Interview 3).

Four of the 15 campaign professionals reported engaging in true microtargeting at the individual level (Interview 6, 9, 12, 13). Instead of targeting messages to people with certain characteristics, such as gender or age, they targeted individuals based on propensity scores generated from statistical modeling of the electorate. For example, one consultant (Interview 13) described an in-house process whereby a junior

staffer skilled with data would combine data from the electoral roll, survey responses, and purchased data to create individual-level scores predicting the likelihood of persuasion. This model was constantly refined as new data came in, and these data were used to decide whom to target.

Three of the four who had reported using microtargeting were convinced that microtargeting should be pursued, provided a campaign has sufficient funds. However, many campaign professionals made the argument that, even if they had the knowledge and ample resources, they would not microtarget because such hyperspecific targeting just does not make sense in most contexts.

Some made an economic argument. As one put it, "Economically it's kind of dumb to go too niche because you're paying more for these niches; the cost per view is very high" (Interview 15). Another suggested that, by targeting more broadly, a campaign could "get 80 percent of the impact with 20 percent of the cost" (Interview 10).

Others made a philosophical argument about the nature of campaigning in speaking against microtargeting. One suggested that "most campaigning is about awareness," that is, making sure the public knows the name of the party's candidate (Interview 15). "For awareness, you want to go broad." One Green added, "Given the small size of electorates, you can really hammer all people within that electorate with the ads—you don't need to do much targeting" (Interview 8).

Many of the consultants I spoke with agreed that it is now more difficult to do narrow targeting than just a few years ago because of changes in technology. One change mentioned was the release of Apple's iOS 14.5 in 2021, which required users to opt into device tracking on each app, thus making it more difficult for advertisers to match up users with their online behavior (Interview 15). Another lamented that engagement on Facebook has dropped off considerably over the past few years, speculating that Meta's algorithm had changed (Interview 3).

6.2. Ad Tailoring

In general, Australian campaigns are not producing thousands or even hundreds of versions of online advertisements. Tailoring of ads to specific audiences remains fairly limited, which makes sense given that few campaigns are engaged in narrow targeting. That said, tailoring ads for specific geographic areas is common, with different creatives for different electorates and states. These ads typically also feature iconic local images. Two consultants mentioned creating content for specific "community groups," such as those for whom English might be a second language (Interview 14). One state campaign created online ads aimed at Chinese, Indian, Pakistani, Bangladeshi, and Lebanese communities (Interview 15). Another interviewee talked about creating eight different ads: two each focused on four different issues that the campaign determined in advance that they would focus on (Interview 1).

Yet, in fairly rare instances, a campaign did produce large numbers of creatives. One authority on the Labor Party's effort in the 2019 federal campaign suggested that the party produced thousands of different versions of digital ads that were tailored to different segments of the electorate but admitted to being unsure about the value of this approach (Interview 12). In the next federal election in 2022, the party scaled back its effort, creating a few hundred creatives, according to this source. Another campaigner working on the 2023 campaign

regarding the Voice referendum, which would have given Indigenous peoples a voice in parliament, expected to see between 5,000 and 10,000 different creatives (Interview 9).

What prevents the number of unique creatives from exploding? One Green mentioned an ethical constraint, that the party does not want to be sending different, and perhaps contradictory, messages to different voters (Interview 8). Such concerns among the Canadian Greens and left parties in Germany have also been noted (Dommett et al., 2024). Other interviewees mentioned staff constraints. As one Labor-affiliated consultant put it: "The resource load for producing all of that content is so high and audiences are small…what's the point in having five or six people creating custom content for a specific group, say, 10 to 15,000 mothers across the country?" (Interview 10).

For others, the constraints were philosophical in that they believed the way to win was to send a very small number of messages—perhaps only one—to the electorate. One consultant for a Labor state campaign said that "all roads lead to Rome," explaining that the campaign would produce different ads for different segments of the voting population—in other words, each ad had a unique starting point—but the campaign would end each with an image of the party leader and the same slogan (Interview 13). One consultant for the Liberals echoed this argument, explaining that it was "important to have consistency in messaging or you suddenly go down a rabbit hole of having 1,000 different messages. There are ways to run ads that are consistent but feel more relevant to the individual" (Interview 2).

6.3. Use of Data Analytics

The degree to which campaigns use data analytics to model the electorate varies considerably by race and party. People familiar with Labor's data operation reported that the party does extensive data modeling and employed a full-time data scientist during each of the past three federal election campaigns. These in-house employees were backed by data scientists from marketing agencies in 2022. One individual reported that most state Labor parties did not directly employ data scientists, but on occasion, a large state party, such as in Victoria or New South Wales, will hire out data analytics to an agency (Interview 6).

An interviewee from the Greens reported that while the party does use a lot of data, "they are not really doing modeling," and there are few people within the party who would have the skills to do so (Interview 7). Another interviewee who worked for the Greens, however, suggested that the party had done some predictive modeling in one area to identify potential volunteers (Interview 4).

One Labor-affiliated interviewee who worked for an agency reported using extensive data analytics in a recent state campaign. The campaign built its own model of the electorate, using commercial data and the electoral roll, and the interviewee seemed pleased with the effort despite the high cost (Interview 6). But another Labor-affiliated interviewee who worked on a campaign in another state reported that while the campaign had access to a data scientist, it did not have sufficient staff resources to make use of the data (Interview 3).

One well-funded campaign for an independent Teal candidate in 2022 went "all in" on data analytics (Interview 9). An agency hired by the campaign built a propensity-to-persuade model of the electorate in this wealthy, well-educated inner suburb. This model was based on its own datasets, third-party data, publicly available data, and psychographic profiles. The individual explained:

> A traditional campaign would look for people who care about climate change, but in [this electorate], everyone cares about climate change, so we used psychographic profiling and translated that into political value sets. For example, this set of people care in a particular way about the environment and these people care in a different way about the environment, and thus you change the message based on those profiles. From commercial providers you know at a very granular level where these people are—there has been a lot of demographic change in [this electorate].

Despite these examples, many campaigns do not have access to data scientists or the models they produce. Instead, as one Green reported, the campaign would use data in a simpler fashion, such as emailing people about particular issues when it was noticed that they opened emails only about those issues (Interview 4). Other campaigns made use of the built-in tools in the Meta dashboard—and thus leveraged the company's data on users—to determine whom to contact and with what message.

6.4. Online Fundraising

There was a division of opinion on whether online fundraising, especially through paid online ads, was worthwhile. Some reported success in online fundraising in the advocacy space, such as for an organization like Greenpeace or for the "yes" campaign on the marriage equality plebiscite in 2017 (Interview 7). But when it comes to fundraising online during an election campaign, support was muted. One interviewee declared, "Online fundraising is a losing battle" (Interview 8). Although some had tried, many of them reported a negative return on investment. One explained, "You need a baddie to get people motivated" and suggested that Australian politicians do not motivate enough anger to get people to donate (Interview 3).

Yet there are ways to make online fundraising work. One interviewee reported that Google search ads had a positive return on investment; the problem was that not enough individuals were hitting the key search terms, and so the overall money raised was limited (Interview 8).

One reported using online ads to generate a list of potential supporters (Interview 13). Those who clicked on the ad would be put on a supporter list and solicited later with emails requesting donations. In general, my interviewees suggested that email was a more efficient way to raise money during an election campaign, though email may not be as useful as it once was. As one party official explained (Interview 12):

> Email isn't the only form of communication people engage in, as there are messaging services now, and email inboxes are getting cluttered with spam. There are also barriers of trust. My prior for the next election is that email will age out.

Thus, a couple of interviewees urged Australian campaigns to not give up on online fundraising ads. One suggested that the online fundraising success of advocacy groups, such as GetUp!, could be replicated by the parties, and that a more aggressive US style of fundraising could work (Interview 10). Another suggested that the immediate return on investment of an online fundraising campaign can be much different than the long-run return on investment (Interview 9). If you attract someone to donate even a small amount now, but that person donates regularly in the future, then at some point you will generate a positive return.

Others were skeptical of online fundraising, pointing out that the Australian public is not accustomed to receiving fundraising appeals from parties or candidates and that voters might find such appeals a bit crass, given that parties already receive public funding for their campaigns (Interview 3). One suggested that, because of public funding of campaigns, there was not enough incentive for the parties to take online fundraising seriously (Interview 10).

6.5. Ad Testing

Several campaigns tested their ads and messages, though their approaches varied. Some employed experiments. One agency employee discussed an experiment in which one group was exposed to political ads and another was denied political ads, allowing the campaign to measure the impact of ad exposure (Interview 6). Two interviewees mentioned doing A/B testing of different versions of an ad by using Meta's dashboard to see which one resulted in higher engagement statistics (Interview 11, 13).

Focus groups—although not traditionally thought of as on the sophisticated end of DDC—were used in decision-making about ad messaging in a couple of well-funded state campaigns. One campaign consultant discussed using over 50 focus groups in the 12-to-18-month period prior to the election, with these groups becoming more frequent as the election approached (Interview 11). The individual expressed that these focus groups gave the campaign a lot of confidence that it was on the right track with its campaign messaging strategy.

Another consultant working on a campaign in a different state explained the use of focus groups there (Interview 13):

> We were running regular ad focus group sessions, every couple of nights during the campaign. It was a costly and complicated exercise—it is hard to build groups nowadays because people are more cynical and less engaged. But there is increased convenience now as you can do focus groups virtually….It has never been easier to put together a good online group and have a really good cross section of the community. People are also better now at [participating in focus groups], too. We don't have to tell them to unmute anymore. We pay people $100 and they don't have to leave their homes.

Although some expressed enthusiasm for focus groups, one was skeptical of their usefulness in developing political ad messages, saying "ads shouldn't be based on one individual in a focus group" (Interview 9).

That same consultant expressed the importance of learning how ads are performing in other ways (Interview 9):

> It's a two-way street, you need to hear how the ads are performing, but typically, there's one message, and campaign leadership won't have the insights fed back to them….You need to have a unit set up to take in performance of the ads. We do our own surveying and serve ads at such a high volume that we get a lot of data that provides feedback on their success.

For many campaigns, cost was a barrier to doing ad testing. One Green talked about using focus groups to test general slogans but proclaimed that the party did not have the resources to engage in message testing

beyond this (Interview 8). One consultant stated that the client's interests and resources "will determine how much ad testing will take place, but there's not that much money to go around in Australia, not a lot of money to do extra things such as testing or validation" (Interview 10).

Thus, many campaigns relied on inexpensive methods for determining how well an ad was doing. Most prominently was organic engagement measured through things like the number of likes and shares on social media, but this has downsides. As one interviewee explained: "Engagement statistics aren't all that helpful; those people who are most important [for winning elections] are those with the least interest" (Interview 10).

The perception, then, is that key to winning an Australian election is speaking to people who are not interested in politics—and maybe even a bit angry that they are required to vote—but these people are not the type to be sharing political ads on social media.

One campaigner reported looking at the sentiment of the comments about ads that are posted on social media, but the individual acknowledged the limitations of this approach for reaching swing voters (Interview 13): "Comments have become less and less useful because they come from people who are already engaged in the issues."

7. Variation in DDC Across Campaigns

I have discussed five elements of DDC in Australia, all of which pertain to political advertising. Although each element is theoretically distinct—one could, for example, do intensive ad targeting without tailoring those ads or use consumer data without doing ad testing—all elements appear to be positively correlated with each other. Campaigns that engage in one of these elements are more likely to do the others as well.

Still, there remains considerable variation in the sophistication of DDC practices. Some campaigns are on the very low end of the scale. For instance, they might target a few broad demographic segments on social media, say, people of a certain age group, but do minimal ad tailoring or testing. Their use of data is limited to the engagement statistics provided by the Meta dashboard, and there is no attempt at online fundraising. At the other end of the scale is the campaign that creates thousands of ad creatives, uses data scientists (relying on massive databases with multiple sources of data) to create propensity scores that determine who is targeted by particular ads, engages in a multi-pronged online fundraising effort, and tests ad messaging through focus groups, online panels, surveys, and engagement statistics.

Why do some campaigns end up on the low end of the DDC sophistication scale, while others end up on the high end? A few reasons stand out.

The first is the availability of resources. Money allows one to hire campaign consultants with expertise in DDC and sufficient staff numbers to execute the campaign. Having sufficient creative people to tailor ads to niche segments costs a lot of money. Moreover, ad testing can be expensive, whether done through focus groups or surveys, and randomized experiments are prohibitively costly for all but the most well-funded campaigns. This finding is consistent with the cross-national work of Kefford et al. (2023), which notes that several smaller parties in Germany, the Netherlands, and Australia did not have sufficient resources to invest in data collection and infrastructure.

The second reason one sees variation is disagreement among campaign practitioners about the wisdom of pursuing a more advanced data-driven campaign. One consultant who was given the resources to run a well-funded and sophisticated data-driven campaign was convinced that these efforts led to victory (Interview 9). Indeed, the independent Teal candidate whom this consultant advised was able to topple an incumbent Liberal in 2022.

But others have backed off their commitment to full-scale DDC for philosophical reasons. As one interviewee put it, "The more and more I've done this, the more I've thought one simple narrative perpetuated with a lot of consistency makes a difference" (Interview 10). One person familiar with the national Labor Party's efforts in the 2019 federal campaign stated (Interview 12):

> In 2019, we created 1,000 different variations of digital ads, all informed by online experiments, we identified segments based on demography or geography, and we picked ads that did the best, but I'm not sure what value we got out of that hyper-optimization—it was technological fetishization. We didn't stop to ask if it was a strategically intelligent campaign.

In 2022, by contrast, Labor created "maybe a few hundred creatives" that were mostly focused on the qualities of their leader, Anthony Albanese, and the "failings of the Morrison government" (Interview 12). Again, the idea was that a simple narrative sent to all would resonate more than multiple narratives directed at different segments of the population.

A Liberal consultant expounded on this idea, saying, "We're a pretty homogenous lot here in Australia….It's not as diverse or as stratified as what I think the US is—the [campaign] techniques can work similarly with most people" (Interview 14). Thus, the opposition to DDC stems not from distrust of the technology or the data but from a fundamental belief that microtargeting tailored messages to small segments of the electorate is not the way to win elections.

Others are skeptical of investing too heavily in DDC because they lack confidence in the data. Interviewees lamented that engagement on Facebook was down, and the iPhone users who have opted out of tracking means that "it's harder for Facebook to know if you're in the right electorate or not," according to one campaign consultant (Interview 15). The individual added that Meta data are "more of what people say about themselves than what they actually do." In sum, the perception of unreliable data leads some to back away from full-scale DDC.

8. Conclusion

A range of data-driven practices regarding political advertising and messaging is evident in Australia, with some campaigns going "all in" on more sophisticated DDC techniques and others using fewer and more traditional approaches to DDC. Certainly, the know-how exists to do sophisticated DDC, but many campaigns do not because of a lack of resources, a campaign philosophy that stresses the importance of having a single message widely distributed, and a lack of confidence in the available data.

Existing research tends to focus on differences in the data and targeting capabilities of political parties as factors influencing the practice of DDC. For instance, the framework of Dommett et al. (2024) considers,

among other things, the nature of the party system, regulations on parties, party resources, party structure, party ideology, and party attitudes toward campaigns. And when examining Australia specifically, Kefford (2021) focuses on variation across parties in the use of DDC practices. One might expect, then, that differences in party infrastructure would be a key predictor of how DDC is executed, but my interviews did not always support the importance of the party.

For instance, while the Labor Party has the most sophisticated data infrastructure of any party in Australia (Kefford, 2021), that expertise does not necessarily trickle down to individual campaigns. One campaign official on a Labor state campaign reported that the campaign's small staff did not have the time to take advantage of the data sitting in Canberra (Interview 3). Moreover, the two consultants who worked for independent (Teal) candidates in 2022 ran, by their own accounts, highly sophisticated data-driven campaigns that year because they had the money to do so. In short, a candidate who has access to money—even without a connection to a political party—can buy a highly-developed data-driven campaign from a marketing agency. This may be true in other countries as well, especially those with few limits on campaign fundraising, relatively weak parties, and a well-developed marketing profession. Future research should look more at the outsourcing of DDC to marketing agencies, and given that capacity, how important party data infrastructure remains.

This study, like any, has limitations. My study cannot match Kefford (2021) in terms of breadth when it comes to the study of DDC in Australia. That said, my narrower focus on digital political advertising does bring to light a few things, including the important role of agency staff and consultants in campaigns, the existence of debates about the wisdom of employing more sophisticated DDC—and the reasons for those debates, including fundamentally different philosophies about what it takes to win.

Another limitation is that my study speaks to a specific point in time. I asked those interviewed to provide examples from a recent campaign on which they worked, and thus my data speak to the use of DDC over the past few years in the federal elections of 2022 and in the many state elections in 2021 and 2022. I am unable to trace the longer-term development of DDC in Australia.

My sample of interviewees is tilted to those who have worked for Labor, likely a consequence of snowball sampling. Thus, one must be cautious about concluding that DDC works differently across parties or, on the flip side, assuming that it works similarly across all parties.

Interviews can be an extremely useful research method, but they can also come with pitfalls. With one interviewee who worked for an agency, I felt as though I was getting a sales pitch for the benefits of highly sophisticated and costly approaches to DDC. Not surprisingly, when consultants are trying to sell their services, they may have an incentive to tout the benefits of the approaches that earn them the most money. That said, I also spoke with consultants and party officials who were highly introspective about the pros and cons of more sophisticated DDC practices.

It is far from inevitable that Australian campaigns will adopt further elements of DDC. In fact, as I have suggested, some have stepped back from many elements of DDC, including hyperspecific targeting, producing thousands of ad creatives, and sophisticated ad testing. Some who were once convinced that such techniques were the only way to run a modern campaign have now decided that developing a simple,

resonant message and making sure everyone hears it is superior to running campaigns in which data drive even the smallest decisions.

Gibson (2023) suggests that if the move toward further DDC were to slow down, it might be due to governmental regulatory changes, such as data privacy protections instituted by the European Union. Yet, to this point, regulation of DDC in Australia has been virtually nil. Those who have not pursued more sophisticated DDC practices—or have stepped back from microtargeting, tailoring, and ad testing—have done so for other reasons, not because regulation has made it more difficult.

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Conflict of Interests

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Supplementary Material

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ARTICLE

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Data-Campaigning on Facebook: Do Metrics of User Engagement Drive French Political Parties' Publications?

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Abstract

Research on data-driven campaigning has mostly focused on the strategies of central campaign teams. However, there is a lack of evidence explaining how parties and supporters use data-driven campaigning techniques to organise their social media campaigning. Do user engagement metrics influence the choice of campaign themes by encouraging political parties to concentrate their communication on issues that are most liked, commented on, and shared? Our study focuses on the use of Facebook by French political parties and their supporters during the 2022 presidential election campaign. We conducted a supervised content analysis based on machine learning to examine their Facebook posts (n = 17,060). Our results show that the issues prioritized by parties on Facebook may be different from those that are most prominent in their broader communications. In most cases, however, these themes are not chosen based on user engagement, even for parties that claim to have developed their base through digital channels. Instead, the choice of themes seems influenced by more traditional campaign strategies, such as the desire to capture the electorate of their closest rival. In our conclusion, we discuss the implications of these findings for the adoption of data-driven campaigning in digital election communication across Europe.

Keywords

data-driven campaigning; issue salience; political communication; political programs; social media; supervised learning; user engagement

1. Introduction

The use of social media data in electoral campaigns has developed significantly over the years, allowing political parties to refine their data-driven campaign strategies. These data are said to allow political actors to influence and even manipulate citizens to further their electoral goals (Madsen, 2019). Particularly in the United States, they are used to develop individualised electoral influence strategies (Burkell & Regan, 2019) and can even be used to demobilise specific voters (Bodó et al., 2017). However, these data-driven campaign strategies vary from country to country (Dommett et al., 2023). For example, in European countries, legislation on the use of personal data by political parties is much more restrictive (Dommett, 2019; Dommett & Power, 2019). In most cases, restrictions on campaign budgets are defined to prevent the use of data analytics companies and the implementation of electoral strategies using sophisticated microtargeting techniques. However, these restrictions lead parties to develop data-driven campaigning techniques by analysing data from their social media accounts (Ennser-Jedenastik et al., 2022). For example, they manage their communication strategies and the choice of topics they cover by analysing the responses to and impact of their posts by relying on user engagement metrics, such as likes, comments, and shares.

Nevertheless, this strategic selection of subjects for data-driven campaigning is at odds with the ideological role played by political parties. It is a traditional function of political parties to defend different electoral programmes and to emphasise certain themes to a greater or lesser extent, depending on their ideology and political vision. The Chapter Hills Expert Survey Europe has been measuring these ideological differences between European parties since 1999 (Jolly et al., 2022). This ranking, based on expert assessments, also measures the salience of certain issues for different parties.

France represents a compelling case study for examining the potential contradiction between data-driven campaigning, particularly on social media, and the ideological function of political parties. In recent years, three political parties have emerged with the aim of disrupting France's traditional political landscape and securing the presidency: La République En Marche (REM), La France Insoumise (LFI), and Reconquête! (R!). Their focus on winning the presidency pushes their ideological ambition to the background, leading some authors to describe them as "movement parties" (Lefebvre, 2018). Moreover, these three parties rely extensively on digital tools for their communication and organisational activities, similar to parties such as Podemos in Spain and Movimento Cinque Stelle in Italy (Gerbaudo, 2021). Each of these French parties has established digital departments tasked with contributing to both their organisational and communication strategies, in line with the principles of "digital parties" (Gerbaudo, 2019). Consequently, it is probable that they will adopt a distinctive approach to social media communication, using data gathered from social media to shape their publication choices.

However, there is currently no research on the use of social media data as a guide for online campaign communication choices in France. Existing qualitative studies (Theviot, 2016) have analysed the use of data during elections through interviews with campaign team members, following a model used in American studies that emphasize the importance of stakeholder interviews (Kreiss et al., 2020). To date, no quantitative study has explored the use of data-driven campaigns on social media in France.

Given these circumstances, this article will study how data-driven campaigning based on social media data was developed by French parties and their candidates during the 2022 presidential campaign. Specifically,

it will analyse user engagement rates of Facebook posts by the various parties to determine whether this engagement influences the salience of the issues raised on the platform by the parties during the campaign, beyond their ideology and traditional focus. Facebook was chosen for this analysis because it is the most frequently used social media platform for political purposes by French citizens during the 2022 presidential campaign. Thirty-four per cent of French citizens reported that they had sometimes or often used Facebook for political activities (such as viewing, commenting on, or sharing content) during the campaign, compared to only 19.5% for Instagram, 18.2% for YouTube, and 17.6% for X (formerly Twitter; Neihouser, Haute, et al., 2022). This suggests that parties paid particular attention to their communication on that platform. Furthermore, this study focuses on the rates of user engagement because France has some of the strongest legal restrictions on the use of personal data as well as on campaign budgets in Europe (Dommett, 2019; Dommett & Power, 2019). Parties are therefore unable to use the social media user data potentially available via Facebook. But nothing prevents them from using the metrics from their posts (number of likes, comments, shares, etc.) to define their online communication strategy.

In this article, we will answer our research question by assessing whether French political parties publish more news on topics that generate the most user engagement on their pages (in terms of volume of likes, comments, and shares). To do this, we conducted a supervised content analysis based on machine learning to analyse the posts (17,060) published by Facebook pages (544) supporting the parties and candidates in this election. We will then compare these results with the results of the 2019 Chapter Hill Expert Survey (CHES).

2. Theoretical Background

2.1. Issue Salience and the Impact of Digital Data

The literature has long demonstrated that different parties organise their political communication around a number of central issues that set them apart and allow citizens to identify and position them within the political landscape (Budge & Farlie, 1983; Petrocik, 1996). The importance each party attaches to each issue varies, depending on their values and ideology. For example, left-wing parties are traditionally more likely to focus on issues of redistribution or the environment, while right-wing or more conservative parties place more emphasis on economic liberalism. Bélanger and Meguid (2008) looked specifically at how the importance (or "issue salience") attached to different issues by the parties is likely to determine voting behaviour. Indeed, voters are able to position parties ideologically, and make their voting choices, based on their perceptions of the issues that are traditionally most salient or important to parties. This explains why the key themes of each party's communication tend to change little over time.

Nevertheless, the development of digital services and social media has changed parties' practices by encouraging them to position themselves on various topical issues when they feature prominently in discussions on digital platforms (Ennser-Jedenastik et al., 2022)—and not just according to their ideology. It has made data central to new campaigning practices and to the choice of issues around which parties seek to define their political communication strategies. Among these digital data, those that measure the audience of publications and level of user engagement have become key (Ennser-Jedenastik et al., 2022). The volume of likes, comments, and shares has become a valuable indicator for analysing the reception of different types of content.

Political parties have therefore refined their online communication strategies by changing the length of their posts or enriching them with images or videos in order to influence their reception and the dynamics of user engagement (Heiss et al., 2019; Jost, 2023; Koc-Michalska et al., 2021). Similarly, the tone of posts on Facebook—positive or negative—and their emotional dimension also have an impact (Peeters et al., 2023; Russmann et al., 2024; Vuckovic, 2023).

So far, however, no study in France has measured whether digital data has had an impact on the selection of the key issues addressed by political parties. There are, however, a number of studies that measure the salience of different issues in party communication more broadly (manifestos, speeches in the media, etc.). This is particularly true of the 2019 CHES (Jolly et al., 2022), which we use in this article. Thus, in light of the literature presented above, our first hypothesis is as follows:

> H1: The issues most frequently addressed by parties in their Facebook posts are different from the issues they usually highlight in their communications.

As mentioned in the introduction, the focus of this article is more specifically on the influence of user engagement rates on the thematic issues raised by parties during the election campaign. User engagement rates can be considered to be "campaign data" as opposed to "voter data," which is also used in the context of data-driven campaigning (Dommett et al., 2023). While the former is collected about the campaign itself, the latter concerns citizens and includes information such as their voter registration data, their party preferences, and/or their other opinions and interests (Dommett et al., 2023, p. 7). In the French context, where the use of personal data is heavily restricted, campaign data—and in particular user engagement rates—are valuable sources of information.

Furthermore, only thematic posts linked to programmatic proposals are analysed here as we need to compare them with the issues studied in the 2019 CHES. Among these issues, not all generate the same reactions or have the same reach. Some studies have shown, for example, that corruption or immigration often attract more attention on social media than economic or environmental issues (Bene, 2021; Bene et al., 2022).

Thus, our second hypothesis is as follows:

> H2: Parties will tend to communicate more on Facebook about the issues that generate the most user engagement, even if these issues are not traditionally the most prominent in their speeches and programmes.

2.2. The Digitalisation of Parties and the Use of Digital Data

In France, three parties—REM, LFI, and R!—represented in the 2022 election by Emmanuel Macron, Jean-Luc Mélenchon, and Eric Zemmour respectively, have grown over the last five years, largely due to the importance of digital tools in their organisation and communication (Neihouser, Figeac, & Le Coz, 2022). These parties align with the model of "platform parties" (Deseriis, 2020) which builds on the "digital party" model (Gerbaudo, 2019). They are centred around a charismatic leader with strong ambitions for power. This has a major impact on the ways in which digital tools are used (Gerbaudo, 2019). Significant resources are invested to effectively use these tools to inform, mobilise, and organise activists and voters. One such investment is the creation of

digital departments within the parties, staffed with data analysts, to leverage innovative digital technologies and data to compensate for their lack of regional presence and activist capabilities.

Another consequence of structuring around a leader's power ambitions is the sidelining of these parties' ideological ambitions. Their primary objective is to seize power, not to win an ideological battle against opponents. Under these conditions, it might be argued that any means are justified, including those provided by the use of data and data-driven campaigns:

> H3: For REM, LFI, and R!, the tendency to communicate more on Facebook about the issues that generate the most user engagement will be stronger, even if these issues are not traditionally the most salient in their respective discourses and programmes.

2.3. Metrics of User Engagement and Their Impact on Campaign Themes

Scholars argue that analysing user engagement and perceived audience expectations allows candidate teams to monitor their campaigns on social media, especially Facebook (Ennser-Jedenastik et al., 2022; Kalsnes, 2016; Kelm, 2020). However, these studies rarely distinguish between different types of user engagement despite how important this distinction is. Indeed, liking, commenting, or sharing content does not involve the same level of engagement (Gerodimos & Justinussen, 2015). Commenting was found to be primarily related to social interaction motivations, liking to presentational motivations, and sharing to information-sharing motivations (Heiss et al., 2019, p. 1499). Thus, these types of user involvement imply different modes of political participation. Commenting is the most successful way to get involved and, for scholars, one of the best approximations of political engagement on social media (Bossetta et al., 2017).

Similarly, these actions do not have the same effect on the spread of the message and its circulation among users' friends or followers. Liking and sharing a Facebook post means that it reaches a much larger audience, often beyond the small network of supporters and followers (Bene, 2017b). This is not the case with comments. A share also creates more visibility for a post than a comment because a comment is only visible on the thread where it is written, whereas a share allows content to be shared on another page (Kim & Yang, 2017). Thus, certain types of user engagement allow the content authors to indirectly reach an audience with whom they have no relationship. This virality-based dissemination logic of social media is interesting because it allows political actors to spread their messages indirectly to wider segments of supporters (Klinger & Svensson, 2015).

In other words, political actors can reach different audiences on social media because of these different types of user engagements. Likes allow them to reach their supporters who mostly agree with their posts, shares help them reach their followers' followers (Vaccari & Valeriani, 2015, p. 1026), and comments have the potential to reinforce the beliefs of their most loyal supporters. Political parties can then use social media metrics to pursue data-driven campaign strategies with the volume of likes of their posts (because this data is a marker of support that helps increase the direct audience of the post), the volume of shares (because it reflects the willingness of the internet user to inform their followers or even to influence their political opinions in order to support the party's candidate), and the volume of comments (because it reflects the willingness of the user to engage in a deliberative argument with the immediate audience of the post, which may lead them to favourably modify the opinion of other commentators). As such, we propose:

H4: As comments and shares encourage greater engagement from political party supporters, we can expect them to publish more Facebook posts on topics that generate the most comments and shares.

3. Data and Method

3.1. Data

To test our hypotheses, we conducted a content analysis of Facebook posts by party and candidate supporters during the 2022 French presidential election campaign. France has a mixed electoral system, and we considered candidates who received at least 4% of the vote in the first round of the election: Emmanuel Macron (centrist, REM, 27.84%), Marine Le Pen (far-right, Rassemblement National [RN], 23.15%), Jean-Luc Mélenchon (far-left, LFI, 21.95%), Eric Zemmour (far-right, R!, 7.07%), Valérie Pécresse (right, Les Républicains [LR], 4.78%), Yannick Jadot (left, Europe Ecologie Les Verts [EELV], 4.63%). We collected data from the Facebook pages supporting these six candidates (N = 544) from 1 January to 24 April 2022 using the Facebook API. The initial dataset contained 22,620 posts. We pre-processed the textual data before applying automated content analysis methods by deleting all posts that contained only a link or a hashtag. The final dataset comprised 17,060 posts.

3.2. Hybrid Content Analysis Method

The number of posts in this dataset is too large for us to qualitatively determine the issues addressed by the parties in their publications. In social sciences, scholars mostly rely on two well-established approaches: human annotation on sampled data and quantitative methods. Each approach has its merits but combining them yields very promising results. Leveraging recent advances in sequential transfer learning has proven that an expert can train a precise and efficient automatic classifier. Thus, under certain conditions, expert-trained models produce better annotations than humans do (Do et al., 2022). In this article, we therefore used a supervised content analysis method based on machine learning to identify the topics of Facebook posts, following a two-stage process (Bene, 2017a). The first stage was performed by two annotators on a randomly selected sample of 1,500 posts (8.8% of the posts in the main dataset). They identified thirteen key issues raised by the parties in the 2022 French presidential campaign (cf. Table 1). These topics were manually coded by the annotators to provide a gold standard dataset for evaluating the performance of the supervised machine learning method. Despite the diversity of these topics, a significant degree of agreement was found between the two annotators, as shown by a Cohen's kappa index of 0.94 and a Krippendorff's alpha coefficient of 0.96.

The second stage was performed using a supervised machine learning method based on the French language model "CamemBert." This model was fine-tuned using the dataset of labelled posts to optimise its performance against the manually coded "gold standard." Evaluation of the performance of the model suggests highly accurate predictions. The overall precision for the semi-supervised detection of all topics was 76%, with an F1 score of 0.75.

Among these 13 key issues, this article focuses on eight themes related to political issues (the economy, environment, redistribution, education, health, migration, security, and foreign affairs) and on two "external shocks" (Farkas et al., 2024) that elicited strong reactions from the followers of political leaders because of their divisive nature, such as the Covid-19 pandemic and the war in Ukraine. Only this subsample of labelled

Table 1. Performance metrics for semi-supervised detection of each topic.

		Share of posts	Precision	Recall	F1-score	Cohen's Kappa
Offline calls for mobilisation		42%	0.824	0.875	0.848	0.966
Online calls for mobilisation		20.57%	0.545	0.462	0.500	0.978
Media coverage of the campaign		10.11%	0.462	0.600	0.522	0.920
Information on political issues	Economy	4.96%	0.727	0.800	0.762	0.974
	Environment	1.96%	0.875	0.700	0.778	0.837
	Redistribution	2.33%	0.714	0.714	0.769	0.857
	Education	1.66%	0.875	0.636	0.737	0.970
	Health	1.04%	0.600	0.750	0.667	0.974
	Security	3.85%	1.000	0.667	0.800	0.899
	Migration	5.47%	0.667	1.000	0.800	0.833
	Foreign Affairs	2.43%	0.636	0.700	0.667	0.820
Shock events	Covid-19	0.83%	1.000	0.857	0.923	0.857
	War in Ukraine	2.77%	0.571	0.800	0.667	0.920
Overall (weighted)		100% (17,060)	0.757	0.748	0.745	0.940

posts will be analysed in this article. The other messages did not address the main topics of the political campaign. They dealt with other issues, in particular, off- and online calls for mobilisation or the media coverage of the candidate's campaign. These posts are not of interest to us, as the aim here is to study the programmatic issues raised by the parties on Facebook.

3.3. Statistical Models

The unit of analysis in this study is Facebook posts, and the dependent variable is user engagement. Facebook data specify user engagement with party and candidate supporters' Facebook posts by referring to the number of likes (ranging between 0 and 91,371; $M = 1{,}021$), comments (ranging between 0 and 57,587; $M = 226$), and shares (ranging between 0 and 32,743; $M = 231$). This enables us to determine the volume of user engagement, in terms of likes, shares, or comments, generated by the party and candidate supporters' Facebook posts by targeting more precisely the audience for the ten central issues raised during this election.

We used multilevel modelling to analyse the data (Bene, 2017a; Heiss et al., 2019). This approach allowed us to account for the influence of the number of posts published by different Facebook pages, ensuring that the topics most covered by the most active pages were not over-represented at the expense of those most covered by the less active pages (cf. Table 5, 6, and 7, in the Supplementary File). We used two types of control variables: "visual content" and "post length." Specifically, we distinguished between visual (video and photo) and non-visual content in the political communication of parties and their supporters. Additionally, we measured the effect of text length (between 1 and 4,999; $M = 188$; $SD = 408$).

3.4. Comparison with the CHES de 2019

We then compared the topics of Facebook campaign posts with the relative salience of different issues by party, as measured by the 2019 CHES (Jolly et al., 2022). Conducted in the winter of 2020 and completed by 421 political scientists specializing in political parties and European integration, the 2019 CHES provides

information on the positioning of 277 parties. Based on expert opinions, the 2019 CHES measures the relative importance (0 = *not important*; 10 = *very important*) of various themes in each party's communication. Not all the themes identified in the parties' Facebook posts are examined in the 2019 CHES, but the four most important ones are the economy, immigration, redistribution, and the environment. For this reason, our analysis focuses more specifically on these four themes. Furthermore, of the six French parties and their candidates we study, five are represented in this survey. Eric Zemmour's party, R!, which did not exist when the 2019 CHES data were collected, is not included. Table 2 summarises the results for each of the parties analysed.

Table 2. Salience of different issues by party according to 2019 CHES.

	Economy	Immigration	Redistribution	Environment
EELV	5.6	4.3	6.5*	9.4*
LR	7	6.8*	5.4	2.6
RN	5.1	9.9*	5.4	2.5
REM	7.8*	5.7	4.7	5.5
LFI	8.9*	4.5	8.9*	6.5*
R!	NA	NA	NA	NA

Note : * = particularly salient. Source : 2019 CHES (Jolly et al., 2022).

4. Results

First, this article identifies which issues are most frequently addressed in each party's Facebook political communication. In particular, it assesses whether parties tend to communicate more on Facebook about the issues that are otherwise most prominent in their usual communication (H1), or whether they communicate more about those issues that generate the most user engagement, even if these issues are not traditionally the most prominent in their respective discourses and programmes (H2). Additionally, the study assesses whether this trend is more pronounced among the three most recently created parties in France (REM, LFI, and R!; H3). Fourth, this article analyses the different modalities of user engagement (liking, sharing, and commenting) generated by each campaign theme. The aim is to assess whether parties tend to publish more posts on the topics that generate the most shares and comments (H4) to encourage these practices among their subscribers in the hope of disseminating their information to their networks of followers.

4.1. Do Political Parties Communicate on Facebook About Specific Issues?

We analyse whether the topics about which parties communicate most on Facebook differ from those that are most salient in their communication more broadly according to 2019 CHES (H1). Table 3 shows the distribution of topics covered by political parties on Facebook during the 2022 presidential campaign. The first four topics are also analysed in the 2019 CHES to show which are the most salient for each party. We have highlighted the most salient issues for each party according to 2019 CHES.

The most salient themes on Facebook vary across parties. Two of the five parties analysed by CHES 2019 give the most prominence on Facebook to the theme that is most prominent in their broader communication compared to the other parties. Twenty-seven point six per cent of REM's posts deal with the economy

Table 3. Distribution of topics covered by political party Facebook posts.

	LFI	EELV	REM	LR	RN	R!	*Average*
Economy	5.1%	24.1%	27.6%*	22.9%	22.7%	13.5%	19.3%
Environment	43.7%*	13.5%*	3%	4%	3.7%	2.3%	11.7%
Redistribution	5.9%*	17%*	8.9%	8.6%	7.5%	7.6%	9.3%
Migration	3.5%	4.2%	11%	5.3%*	21.5%*	33.3%	13.1%
Education	5.1%	11.5%	11%	6.1%	2.6%	6.1%	7.1%
Security	4.3%	4.2%	19.3%	7.2%	15.5%	19.1%	11.6%
Health	5.9%	8.8%	3.6%	5.3%	4%	1.7%	4.9%
Foreign Affairs	4%	3.9%	5.9%	18.6%	8.8%	7.9%	8.2%
War in Ukraine	21%	11.3%	8.9%	18.3%	4.7%	7.9%	12%
Covid-19 pandemic	1.3%	1.5%	0.9%	3.6%	9.2%	0.6%	2.9%
Total	100%	100%	100%	100%	100%	100%	—
N	371	407	337	694	1,005	1,846	—

Notes: * = The more salient issues for each party for the 2019 CHES (cf. Table 2).

(compared to 24.1% of EELV's posts, the second party with the highest proportion of this topic on Facebook). Twenty-one point five per cent of RN's posts deal with immigration, compared with just 11% of REM's posts (the second most popular party on Facebook, excluding R! which is not included in the 2019 CHES). The economy and immigration are traditionally the most prominent themes in the communications of REM and RN respectively.

On the other hand, the other two parties analysed by the 2019 CHES show a preference for different themes on Facebook than those that are usually most prominent in their communication. These two parties, EELV and LFI, identified as left-wing by the 2019 CHES, are in direct competition to attract progressive voters. According to the 2019 CHES, each of these two parties emphasises the most prominent themes of their direct opponents on Facebook. EELV, for instance, posts proportionally much more about redistribution than its opponents on Facebook (17.5% of posts compared to 8.9% for REM, the second party that posts proportionally most on this topic). However, redistribution is traditionally the most prominent theme in LFI's communications (2019 CHES). Conversely, LFI posts proportionally much more on the environment than its opponents (43.7% of posts compared to 13.5% for EELV, the second party that posts proportionately the most on the subject), despite the environment being traditionally the most prominent theme in EELV's communications (2019 CHES).

Another interesting finding, not covered by the 2019 CHES, relates to the REM's focus on security in its Facebook posts. REM, the ruling party, is much more active on this subject than its opponents (with the exception of R!). This may reflect a campaign effect: In 2022, the far-right (RN and R!) seems to be the only true opponent of the president and his party (REM) in the race for re-election. This undoubtedly prompted REM to campaign on Facebook on an issue that is typically associated with the far-right. This tendency of parties to campaign on issues traditionally associated with the far-right also seems to be illustrated by the high proportion of LR posts about the war in Ukraine (18.3% of posts compared to 4.7% for RN and 7.9% for R!). This focus allows LR to distance itself from the far-right (RN and R!) in the campaign—its direct opponents—which are often considered to be Russophiles by some sections of the public.

In the end, H1 was only partially validated. While the themes presented by political parties on Facebook occasionally align with those most prominent in their general communication, the most important variable influencing topic selection on the platform seems to be the desire to differentiate themselves from their direct opponents by focusing on issues either traditionally associated with their communication or that are likely to undermine their rivals.

4.2. Do Political Parties Organise Their Communication According to the Metrics of User Engagement?

Table 4 displays the user engagement scores generated by different topics, distinguishing between the number of likes, shares, and comments. These scores for the level of user engagement are derived from the statistical models presented in the Supplementary File.

The first result from Table 4 allows us to reject H2: Political parties do not communicate more on Facebook on the topics that attract the most user engagement. According to Table 3: LFI shares proportionally more Facebook posts than its competitors on the environment (43.7%) and the war in Ukraine (21%); EELV on the economy (24.1%), the environment (13.5%), redistribution (17%), education (11.5%), and health (8. 8%); REM on the economy (27.6%), education (11%), and security (19.3%); LR on foreign affairs (18.6%) and the war in Ukraine (18.3%); RN on migration (21.5%), security (15.5%), and the Covid-19 pandemic (9.2%); and R! on migration (33.3%) and security (19.1%). However, these topic preferences only lead to higher user engagement in specific cases: EELV's posts on the environment are certainly positively correlated with a higher share rate—but not those on the economy, redistribution, health, and education; LR's posts on the war in Ukraine are certainly positively correlated with the share rate—but not those on foreign affairs; RN's posts on the Covid-19 pandemic are certainly positively correlated with the share rate—but not those on security and migration.

On the contrary, certain issues promoted by the parties on Facebook are negatively correlated with user engagement rates. This is the case, for example, for the environment for LFI and for migration and security for the RN. Other issues promoted by the parties on Facebook have no effect on user engagement rates: this is the case for the economy (EELV and REM), redistribution (EELV), education (REM and EELV), security (REM), foreign policy (LR), and the war in Ukraine (LFI and LR). On the other hand, issues that are less frequently addressed by the parties are likely to bring them user engagement: the Covid-19 pandemic (LFI), migration (EELV), the economy (LR), and the environment (RN).

This first set of results also invalidates H3, at least for REM and LFI: Neither of these parties promotes topics on Facebook that allow them to attract the most user engagement. However, R! stands out from its competitors in this respect. In fact, it is the only party that receives significantly more user engagement (comments [migration] and shares and comments [security]) for the two topics that it promotes proportionally more on Facebook than its opponents (migration and security). However, it may be that these topics were chosen based on the party's ideology—openly anti-immigration and security-oriented (Ivaldi, 2022)—rather than on an analysis of the user engagement they generate.

Another main finding of Table 4 concerns the H4, which predicted that parties would have tended to publish more posts on topics that generated the most comments and shares ("likes" not having the same function). This hypothesis was not validated because the different metrics of user engagement very often converge. First, if a topic generates more likes, it tends to generate more shares and comments, and vice versa. For example,

Table 4. The topics in political parties' posts and their likelihood of generating likes, shares, or comments.

	LFI			EELV			REM			LR			RN			R!		
	Like	Share	Comment	Like	Share	Comment	Like	Share	Comment	Like	Share	Comment	Like	Share	Comment	Like	Share	Comment
Economy	0	0	−2	0	0	0	0*	0*	0*	2	3	0	−3	0	−3	−1	3	−1
Environment	−2*	−1*	−2*	0*	1*	0*	0	0	0	0	0	0	0	3	0	0	0	0
Redistribution	0*	−1*	−3*	0*	0*	0*	0	0	0	0	0	0	−2	0	−1	0	0	0
Migration	2	0	0	3	3	1	0	0	0	3*	0*	0*	−1*	0*	−2*	0	0	1
Education	0	0	−1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	−1
Security	−3	0	0	0	0	0	0	0	0	0	0	0	−3	−1	−1	0	3	3
Health	0	0	0	2	0	0	0	0	0	0	0	0	−1	0	0	0	0	0
Foreign Affairs	0	0	0	0	0	0	−2	−1	0	0	0	0	−1	0	0	0	0	0
War in Ukraine	0	0	0	0	0	0	0	0	0	2	0	0	−2	0	0	0	0	0
Covid-19	3	3	1	0	0	0	0	0	0	0	0	0	0	3	0	−1	0	0

Notes: The score of the user engagement ("like," "share," "comment") is determined by the significance of the *p*-value in the statistical models (cf. Tables 2, 3, and Table 5 of the Supplementary File); the value is "0" when the *p*-value test is not significant; if the estimation is positive, the value is "1" if $p < 0.05$, "2" if $p < 0.01$, and "3" if $p < 0.001$; if the estimation is negative, the value is "−1" if $p < 0.05$, "−2" if $p < 0.01$, and "−3" if $p < 0.001$; * = The more salient issues for each party for the 2019 CHES.

the topic of immigration generated many likes, shares, and comments among EELV supporters. The same trend could be seen with the topic of the Covid-19 pandemic for LFI, the economy for LR, and security for R!. Second, this trend could also be observed when a topic generated fewer reactions, and the scores for all user engagement metrics fell to a lower level. This was the case, for example, with the environment for LFI, security for RN, and foreign affairs for REM.

5. Conclusion

This article examines whether French political parties post more frequently on topics that generate the most user engagement on their Facebook pages (in terms of the volume of likes, comments, and shares). Our results show that the topics favoured by parties on Facebook may differ from those most salient in their communication in general (H1). Nevertheless, in the majority of cases, these themes are not chosen on the basis of the user engagement they generate (H2 and H4)—even in the case of parties that claim to have been built partly through digital means (H3). Instead, they seem to be chosen on the basis of more traditional campaign dynamics, such as the desire to capture the electorate of the most direct opponent.

In this article, we have focused on the study of user engagement rates because French law prohibits political parties from running targeted advertising on social networks during election campaigns. Similarly, strict regulations govern the use of personal data. The data that political parties can use for data-driven campaigning on social media is thus very limited. User engagement rates could therefore have been a tool for campaign teams (Ennser-Jedenastik et al., 2022) as they are classified as "campaign data" and not "voter data" (Dommett et al., 2023). However, even in this context, during the 2022 French presidential election campaign, there was no link between the topics that generate the most user engagement and those that are

most present in the parties' Facebook communications. One might have thought that the reverse would be true. The parties could have published more posts on the issues that elicited the most reactions.

Instead, more traditional campaign dynamics seem to have had a greater influence on online communication choices. Parties sought to compete with their direct opponents on their key political issues, regardless of the user engagement levels. This strategy reflects a key finding highlighted in this article: Parties tend to shift away from the issues that align the most with their usual discourse and their values towards the issues that are usually at the centre of the communication of their most direct opponents. While the literature has long shown that parties structure their political communication around a set of core l issues that distinguish them and allow citizens to identify and position them in the political landscape (Budge & Farlie, 1983; Petrocik, 1996), online communication seems to encourage them to take up the key issues raised by their most direct opponents in order to appeal to their voters and potentially sway them. We know that ideologically close individuals are exposed to relatively similar content on the internet (Pariser, 2011). Thus, parties would likely aim to appeal to the supporters of their closest competitors, who might be accidentally exposed to their online messages, by targeting issues that are typically addressed by those parties. Indeed, our results show that parties sometimes neglect online issues that are otherwise most prominent in their overall communication, giving their immediate opponents this opportunity to attract their voters.

This trend can be found in the online communication of most of the parties in this study, including recent parties (REM and LFI) which claim a high level of digitalisation (Neihouser, Figeac, & Le Coz, 2022). It would be interesting to compare these results in France with those of other European cases with similar parties—such as Italy (Movimento Cinque Stelle) or Spain (Podemos). Do these parties use user engagement rates, and more generally "campaign data," to guide their social media communication more than their respective national opponents? Does this type of data-driven campaigning make it possible to differentiate these parties from their competitors in national contexts that are otherwise similar to the French case (relatively strict legislation on personal data, etc.)?

One party stands out in the 2022 French presidential campaign: R! It is the most recently created party in the presidential race (just a few months prior). It therefore relied heavily on digital technology to communicate and organise in a very short time frame (Neihouser, Figeac, & Le Coz, 2022). It is also the only party to highlight topics on Facebook that attracted the most user engagement from its supporters. However, it remains unclear whether R! posted more on these themes because they attracted more user engagement from supporters, or because they form its programmatic base, which consequently leads to more reactions from supporters on Facebook.

A limitation of this study is its focus on a single social media platform, Facebook. While Facebook is particularly interesting as it was the most widely used during the campaign (Neihouser, Haute, et al., 2022), it would still be interesting to compare our findings with those of data-driven campaigns on other platforms. Indeed, each platform attracts different audiences, partly because they have different digital architectures (Bossetta, 2018). It could therefore be the case that, depending on the audiences of the platforms, the parties decide to conduct (or not) data-driven campaigning on the basis of user engagement rates. For example, they could use data-driven campaigning to prioritise the issues that generate the most reactions from supporters on platforms that tend to attract a younger audience (Instagram, TikTok, Snapchat; Larsson et al., 2024), with the specific aim of mobilising this age group. Following on from this, another research possibility would be to

analyse whether the issues presented by the parties on social media align with the issues that resonate most with their platform-specific audience.

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Conflict of Interests

The authors declare no conflict of interests.

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

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Are Certain Types of Microtargeting More Acceptable? Comparing US, German, and Dutch Citizens' Attitudes

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Abstract

Much of the research on political microtargeting has focused on growing public concerns about its use in elections, fuelling calls for greater regulation or even a ban on the practice. We contend that a more nuanced understanding of public attitudes toward microtargeting is required before further regulation is considered. Drawing on advertising psychology research and the results of academic analyses into microtargeting, we argue that individual concern, and by corollary, acceptance of microtargeting will vary based on socio-demographic characteristics and political orientations, and the type of personal data used. We hypothesise that microtargeting that relies on observable or publicly accessible personal information will be more accepted by voters than that which uses unobserved and inferred traits. We test these expectations and the expected variance of public acceptance by individual characteristics using comparative survey data from the US, Germany, and the Netherlands. We find that across countries and socio-demographic groups, not all microtargeting is considered equally problematic. For example, whereas the use of age and gender is generally deemed acceptable, the use of sexual orientation is not, and right-leaning individuals are more accepting than those who lean left. Additionally, overall, the US is more accepting of microtargeting than Germany or the Netherlands. Thus, we find that not all microtargeting is considered equally problematic across countries and socio-demographic groups. We conclude by calling for a more contextualised debate about the benefits and costs of political microtargeting and its use of "sensitive" data before the expansion of current regulation.

Keywords
data; microtargeting; political microtargeting; public attitudes; regulation

1. Introduction

Political microtargeting is not a new phenomenon (Bodó et al., 2017, p. 3). Within politics, the idea of targeting specific messages to groups of voters to prompt mobilisation or facilitate persuasion has been advanced for decades. However, recently, digital technologies—and specifically online advertising infrastructure—have made it easier to target specific segments of a population with tailored content (Jamieson, 2013). Consequently, online political microtargeting has been seen to threaten contemporary democracy (Jamieson, 2013), leading to calls to curtail or ban it. Indeed, the EU's independent data protection authority recently asserted a need to ban microtargeting for political purposes (European Data Protection Supervisor, 2022, p. 2). For purposes of definitional clarity, we note at the outset that we use the terms "microtargeting" and "targeting" interchangeably in this article.

Recent studies have confirmed that the publics share these concerns about the use of their personal data to target political messages during elections (Gibson et al., 2024; Kozyreva et al., 2021). However, how this concern may vary has not been extensively theorized nor examined in a comparative perspective. In this article, we make a first step toward filling this gap by drawing insights from the advertising psychology literature to derive expectations about how acceptable the use of different types of personal data is for microtargeting. Specifically, we argue that certain forms of socio-demographic and opinion data will be regarded as more acceptable for such purposes compared to personal data based on unobserved and inferred characteristics. We test these expectations in a comparative context, examining the cases of the US, Germany, and the Netherlands. Our conclusions support the contention that not all forms of data are created equal, showing that, consistently across countries, certain forms of data are seen as more legitimate for parties to use in targeting their messages. Our findings indicate calls for blanket bans on microtargeting (Banning Microtargeted Political Ads Act, 2020; European Data Protection Supervisor, 2022) may be misplaced and policymakers should be encouraged to take a more flexible and moderated approach to intervention.

In this article, we first introduce the idea of microtargeting, outlining what it entails, and why political microtargeting, particularly in digital form, is seen as problematic for democracy. Second, we present existing insights into public attitudes towards microtargeting and data use, showing a propensity to focus on public concerns and limited analysis of variation within public attitudes of different data types. Third, we present new data showing important nuances in the acceptability of different data. Looking at cross-country variations, and the influence of demographic and attitudinal attributes, we consider to what extent these attitudes are uniform. Finally, we reflect on the significance of our findings for debates about political microtargeting, and call for new research and regulatory responses examining the conditions under which positive usage can be maximised. Improved knowledge of the factors linked to accepting political microtargeting helps understand what drives dominant negative perceptions of microtargeting. Do people object on principle, or do certain groups have a particular disposition toward political targeting, either because they have felt or feel discriminated against based on their identity, or because they would like to receive more identity-relevant information? While opposition to the former type may recommend a blanket ban, the latter more nuanced picture suggests that a more flexible approach is required.

2. What Is Online Political Microtargeting and Why Is It a Threat?

The practice of microtargeting has featured prominently in discussions about campaign innovation and the adoption of new digital technologies. Microtargeting is distinguished by its use of highly personalised online and offline data to tailor messages focusing on very narrowly segmented groups or individuals (Gorton, 2016, p. 68; Kruikemeier et al., 2016; Zuiderveen Borgesius et al., 2018, p. 83).

Although questions have been raised about the effectiveness and efficiency of contemporary efforts at political microtargeting (Baldwin-Philippi, 2017; Hildebrandt, 2019), and some have questioned the degree to which it is practised (Votta et al., 2024), it has nevertheless been claimed that microtargeting seriously threatens democracy, and particularly the integrity of the electoral process (Barrett et al., 2021; Zuiderveen Borgesius et al., 2018). This has prompted attempts to impose stronger regulations that would curtail microtargeting activity (Dobber et al., 2019). Catalogued comprehensively by Zuiderveen Borgesius et al. (2018), different democratic threats have been identified for citizens, parties, and public opinion. For citizens, privacy concerns are paramount, along with fears that these practices may have a chilling effect on behaviour and foster greater distrust in politicians. Gorton (2016) and others have also argued microtargeting can be used to influence voter choices, and even whether they turn out at all (Bodó et al., 2017, p. 3; Harker, 2020, pp. 155–156; Kim et al., 2018; Lavigne, 2020). Even if no explicit attempt at voter suppression is made, there remains potential for microtargeting to exclude the voices of already marginalized sectors of the electorate as mobilization efforts become more accurate in bypassing hard-to-reach voters in favour of the already engaged (Cotter et al., 2021, p. 3).

At the party level, microtargeting is seen to create problems around transparency, as it allows politicians and candidates to obscure how, and to whom their messages are targeted (Jamieson, 2013). These practices also make parties potentially more reliant on intermediaries who provide access to data on commercial terms "to the highest bidder, without any regard to wider, societal concerns" (Bodó et al., 2017, p. 5; Harker, 2020, pp. 155–156). Finally, at the level of public opinion, scholars have raised concerns about the impact of microtargeting in terms of narrowing debate around particular issues and fragmenting the public sphere (Boehme-Neßler, 2016).

These academic concerns have been echoed in the policy environment with calls from prominent regulatory bodies in the EU and US politicians for severe restrictions and even a ban on political microtargeting (Banning Microtargeted Political Ads Act, 2020; European Data Protection Supervisor, 2022). In practice, recent legislation in the form of the EU Digital Services Act, while not prohibiting microtargeting has strengthened restrictions on its use to target vulnerable groups like minors, imposed greater protections on the use of data designated as sensitive, and required more transparency in campaigns' use of algorithms and profiling (European Parliament, 2024). These steps indicate that governing elites are making a distinction regarding the acceptability of different types of personal data used in political microtargeting. It is not clear, however, whether the public share these patterns of concern, or whether this varies cross-nationally, making context-specific national-level regulation more appropriate.

In this article, we interrogate the prevailing negative focus on the use of data in politics. In contrast to many accounts, we note longstanding precedents surrounding the use of data and microtargeting within politics (Kusche, 2020, p. 4). As outlined in detail by Hersh (2015) in the US, the use of data for political purposes

and the segmentation and targeting of the electorate is a key element of election campaigns. Indeed, in many countries, the state makes data about citizens freely available to political parties to facilitate targeted communications (Dommett et al., 2023; Kefford et al., 2022). Such examples suggest that the use of data is not unprecedented and indeed has often been seen as compatible with democracy. Noting this, we contend that microtargeting could have positive democratic effects. Indeed, the Victorian Parliament in Australia highlighted the potential for microtargeting to deliver more relevant political advertising to voters, and reach social groups that are usually difficult to contact. It also cited the cost, efficiency, and effectiveness of this technique as potential positives, and noted its potential for allowing campaign diversification and boosting knowledge among voters about individually relevant issues (Parliament of Victoria, 2021, p. 169; see also Zuiderveen Borgesius et al., 2018). Existing empirical work has found some evidence for these positive impacts. Dobber et al. (2023), for example, found that targeted advertising positively affects participants' likelihood to vote for a party placing targeted messages. Additionally, Matthes et al. (2022) found that political microtargeting increased political interest (dependent on age), although they also showed that perceived microtargeting decreased trust in democracy, revealing important nuances in effects. What is currently less clear is how citizens view the use of data within politics and how nuanced their views are about the use of different types of data.

In this article, we address this gap by posing the following interrelated research questions: Do citizens in different countries view the use of different kinds of data to be equally (un)acceptable for political microtargeting? If not, how and why might that differ? We then reflect on the implications of our findings for regulators.

3. Public Attitudes Towards Microtargeting

Empirical evidence on attitudes to political microtargeting is limited, with most studies focused on measuring how concerned people are in general about the practice. One of the earliest studies by Turow et al. (2012), reported that most of the American public (86%) did not want political campaigns to tailor advertisements to their interests and were much more critical of its use in elections than in commerce. More recently, the Pew Research Center (Auxier, 2020) found a similarly large majority (77%) of Americans considered it "not very" or "not at all" acceptable for social media companies to use their online activity to show them adverts for political campaigns. Measurement and analysis of perceptions about microtargeting is even more limited beyond the US. Work by Dobber et al. (2019) in the Netherlands using a 0–7 scale of acceptance of political behavioural targeting concluded that the Dutch public was also highly critical of its use by campaigns, with no item measuring favourability toward the practice recording a mean value above a score of three. A rare comparative three-nation study by Kozyreva et al. (2021) examining attitudes toward algorithmic personalization and the use of personal data online in Germany, the UK, and the US concluded that majorities in all countries found the use of these practices unacceptable by political organizations. However, the proportions in both European countries were noticeably higher—close to two-thirds or 61% found such personalisation unacceptable—than among US respondents, where just over half or 51% felt the same. The results also reinforced the finding that people are more negatively disposed toward personalised political advertising compared with tailored messages from commercial vendors. In addition, Vliegenthart et al. (2024, p. 1) tested the perceived acceptability of targeting based on general or individual characteristics in 25 countries, finding that "targeting based on general characteristics instead of individual ones is considered more acceptable." Gibson et al. (2024), in turn, examine how in the US, concern about

microtargeting practices remains considerable, although it varies between demographic groups and based on the type of personal data used.

These studies support the recent move to curtail or ban microtargeting. However, if we delve below the top-line results, a more nuanced picture emerges. First, the studies show variation in attitudes towards privacy according to demographic factors, and that not all groups of voters are equally negatively disposed toward its use. Notably, both the academic analyses and the Pew Research Center reports concluded that age and gender shape voters' perceptions of tailored campaigning, with younger people tending to find these practices less problematic than their older counterparts, and men more so than women. Education and ethnicity also appear to be relevant. For the former, a bimodal relationship emerges with the highest and least educated found to be more accepting. Ethnic minority voters, at least in the US, are less likely to see the practice as problematic. While these analyses do not probe the reason for these differences, much microtargeting literature has identified privacy concerns as key factors driving the dislike of behavioural targeting (Dobber et al., 2019; Schäwel et al., 2021; Zuiderveen Borgesius et al., 2018). Given that privacy fears and protective behaviours appear to follow a similar demographic distribution (Dobber et al., 2019; Kozyreva et al., 2021), it is plausible that they motivate a dislike of microtargeting.

A second source of nuance revealed in these studies is cross-country differences in tolerance toward microtargeting. European publics are more likely to be critical of these practices than the US. Again, although there has been no systematic analysis of those differences, comparative research on data privacy suggests that historical context and the experience of authoritarian rule within European nations have generated stronger cultural and legal resistance toward political microtargeting. Certainly, EU countries have taken greater steps to codify their citizens' right to privacy in law through initiatives like the General Data Protection Regulation than is the case in North America (Bennett, 1992).

Finally, besides the individual-, or micro-, and macro-level characteristics that appear to moderate citizens' views on political microtargeting, the work of Kozyreva et al. (2021) has suggested that supply-side factors and particularly the types of data used in personalised advertising may affect perceptions of its legitimacy. In their study of the US, German, and UK publics the authors compared attitudes toward personalised advertising that was based on a range of different types of data. Specifically, they examined levels of concern toward the use of more observable traits that are typically recorded for official purposes (gender, age, and marital status), as compared to more private and unobserved characteristics (religion and sexual orientation), and online behavioural data (social media posts, online purchases, and browsing habits). The conclusion was that the publics were more restrictive in their attitudes toward the latter types of unobserved and tracking data, but that majorities did accept the use of the more publicly available forms. Work by Zarouali et al. (2022) on responses to data-driven government health initiatives in the Netherlands concluded similarly that compliance was significantly lower when individuals were asked to divulge their movements for purposes of contact tracing and quarantine, compared to others that were more informative, like using digital communication channels to convey updates to citizens. Vliegenthart et al. (2024) also found that targeting based on general characteristics (like age or gender) is more acceptable than targeting based on individual-level characteristics like social media usage or pet ownership. The idea that more intimate or personalised data is viewed to be more sensitive is also found in other studies, which have found negative emotional reactions to be associated with the use of tracking tools to obtain unobservable data (Ruckenstein & Granroth, 2020).

Building on these findings, and linking this back to the privacy fears identified earlier, it appears that not all forms of personal data sharing trigger the same level of anxiety within individuals. Specifically, "sensitive" data that requires self-disclosure like relationship status, sexual orientation, and political beliefs (Miguel, 2018) is likely to encounter greater resistance (Gómez Ortega et al., 2023). There are many possible explanations for these different views. Watson and Lupton (2020, p. 152) propose that perceptions of inappropriate data use depend on how its use makes people feel about their privacy and whether it evokes anxiety, discomfort, and the fear of being "compromised, in danger or embarrassed." Elsewhere Vliegenthart et al. (2024) point to information boundary theory (Boerman et al., 2017), to contend that data seen to be discomforting is perceived as a risk that does not outweigh the benefits of data collection. Within this article, we are interested in further interrogating views of different data.

4. Hypotheses

Our analysis builds on earlier work that has differentiated between attitudes to different data. Unlike previous work that has differentiated in broad terms between general- or individual-level data (Vliegenthart et al., 2024), we differentiate two types of data referred to within existing literature (Table 1).

Type 1 includes data that is publicly available or visibly observable. This data type has routinely been identified as a key source of campaign insight (Hersh, 2015), and is often gathered by campaigners via official records, like census data or the electoral roll (publicly available) or through canvassing (visibly observable). Type 1 data is readily available within the public realm, and includes information about, for example, age, gender, ethnicity/race, education, geographic location, and socioeconomic status. Given insights from information boundary theory, we suggest that this form of data is likely to be more acceptable to citizens as it does not relate to private characteristics or traits. Type 2 includes traits which are not freely and publicly available to campaigns and not directly observable. This individual data is "inferred" or "modelled" (Dommett et al., 2023), and can be purchased by campaigns without a voter's knowledge or consent. Examples of Type 2 data include religious views, personality profiles, sexual orientation, major life events, relationship status, and political views. Within this list, arguably the classification of the last two requires some further justification. Regarding relationship status, we accept that this could also be understood as Type 1 data if interpreted as an individual's formal relationship status, i.e., being married or in a civil partnership. Given the range of situations that this could be assumed to cover, however, many of which are not officially recorded, we classify it as Type 2 data. Similarly, we acknowledge that political views could be considered as Type 1 data in the US where voter registration data is publicly accessible. However, the US is the exception in this respect. Also, even in the US political views are potentially likely to be interpreted as more than simply party choice but to extend

Table 1. Two types of personal data used for microtargeting.

Type		Source	Example data forms
1	Publicly available or observable personal identity traits	Collected by public authorities in the form of a census and are seen as relevant for the distribution of public funding and policy	Socio-demographics, age, gender, ethnicity/race, education, geographic location, class, or income
2	Unobservable personal identity traits	Collection requires self-disclosure of specific information or intimate surveillance via tracking	Religion, personality profiles, sexual orientation, major life events, relationship status, and political views

to non-publicly recorded attitudes toward key issues, groups, and governing bodies. Following Vliegenthart et al. (2024), we suggest that this more intimate or private data is likely to be deemed more risky and to provoke privacy concerns and trigger anxiety, discomfort, and embarrassment, leading it to be viewed in more negative terms than Type 1 data. In both cases, however, we present exceptions to these expectations that are particular to the context of political microtargeting. First, for Type 1, given previous highly controversial instances in which race has been used negatively to mobilize voters (one of the most notable being the Willie Horton ad shown by the Bush campaign in the 1988 US Presidential election) we argue that sensitivity to its use in political microtargeting will be higher and its acceptance will typically be lower than for other Type 1 data. Conversely, among the unobservable traits (Type 2), the use of political views is likely regarded as much more acceptable given its purpose to mobilize voters. Based on this reasoning, we develop two interrelated hypotheses about the relationship between the intimacy of data (collection) and the perceived acceptability of these data for political microtargeting:

> H1: Targeting based on Type 1 data, except for race and ethnicity, will be viewed as more acceptable for political targeting purposes compared to Type 2.
>
> H2: Targeting based on Type 2 data will be viewed as less acceptable than Type 1, except for political views.

In a second step, we extend the analysis to examine the impact of individual characteristics and national context on concerns about microtargeting. Specifically, we regress concern toward the two types of microtargeting on a range of socio-demographic variables that have been linked in prior analyses with different levels of concern. We then compare whether those relationships hold across our three countries. Given the inductive and largely atheoretical approach of this work to date, we adopt an exploratory rather hypothesis-driven approach for this stage of the analysis. We return to reflect on the country and individual-level relationships observed in our conclusions and the implications for future theory building.

5. Methods

5.1. Data and Case Selection

We use three surveys covering three elections: the US presidential election (2020), and the Dutch and German general elections (2021). All data collections were part of two larger research projects, DiCED and DATADRIVEN (see Acknowledgments). Our case selection allows for a comparison of the US, which has dominated scholarly analysis to date, with two European, EU countries that are subject to more stringent data protection rules. We know from Kozyreva et al.'s (2021) study that the German public has greater reservations about microtargeting than the US. The Netherlands adds a new context and further potential variance. A recent comparison of the structure and perceptions of data protection regimes within Europe concluded public debate and awareness of issues relating to data privacy was particularly intense in the Netherlands (Custers et al., 2018). Findings from a Eurobarometer (2021) survey about citizens' understanding of the General Data Protection Regulation supported this finding, with a large majority of Dutch respondents (60%) confirming they had heard of the legislation and knew what it was about, as compared to a smaller minority (42%) of Germans.

Given these documented differences, we anticipate the Netherlands to equal if not exceed Germany in the extent to which it rejects microtargeting and that both nations will display stronger concern than the US. To test our expectations about the between-country and data type-based variance of these perceptions, we compare findings from surveys that asked comparable questions in each country.

The US data was collected between September 16 and October 20, 2020, by YouGov. An overall sample of 5,376 respondents was generated from their main panel to be representative of the target population, i.e., all US adults aged 18 and above, based on education-level, age, gender, ethnicity, region, and the 2016 past vote. A subset of 3,956 respondents from the total sample answered questions about the acceptability of political microtargeting. Of these 3,956 respondents, 51.5% were female, the mean age was 47 (SD = 17.8), 6.3% did not finish high school, and 93.7% did. The German data was collected between August 18 and September 10, 2021, by YouGov. Their main panel was used to generate 5,432 respondents to be representative of the target population, i.e., all German adults aged 18 and older, based on education-level, age, gender, migration background, region, and the vote in the 2017 Federal Election. A subset of 4,920 respondents from the total sample answered questions about the acceptability of political microtargeting. Of these 4,920 respondents, 50.9% were female, the mean age was 50.2 (SD = 17.3), 30.7% did not finish secondary school or high school, 35.5% finished lower secondary school, and 33.2% finished upper secondary school. Finally, data for the Netherlands was collected between February 23 and March 8, 2021, by I&O. Of the 1,264 respondents who participated in the study, 47.9% were female, the mean age was 52 (SD = 17.1), 22.2% had a low-level of education, 39.2% a medium-level, and 38.5% a high-level.

5.2. Measures and Analyses

To investigate perceptions about data-driven targeting, we developed measures that tapped into voters' acceptance of different types of personal data used in campaigns. We focus on "voter data" as opposed to "campaign data" (Dommett et al., 2024), and specifically consider data that can be disclosed, inferred, or behavioural (Dommett, 2019). We, therefore, explore public attitudes towards the use of nine types of personal characteristics in campaigns for political microtargeting: age, gender, and ethnicity (Type 1); relationship status, sexual orientation, religious views, political views, personality profiles, and major life events (Type 2). Whilst we could have analysed responses to particular combinations of these data points (recognising the potential for campaigners to combine individual attributes into voter profiles; Dommett et al., 2023), accepting Votta et al.'s (2024) finding that most political ads on Facebook use just one targeting criterion, we examine perceptions of different types of personal data discretely. The wording of the core survey item used to measure acceptance was: "Political campaigners sometimes try to target their adverts and messages to different groups of voters during an election" and "how acceptable do you think it is for political campaigners to use these different types of personal information to target their ads and messages at voters?" Respondents were given the list of data and asked to rate them on a four-point "acceptability" scale from 1 (*not at all*), 2 (*not very*), 3 (*fairly*), and 4 (*very*). A "don't know" option was offered. The question was fielded in identical form (subject to translation) in all three cases (see Supplementary File, Appendix 1, for the full question wording, for each country). While the question was fielded to the full sample in the case of Germany and the US, it was preceded by a filter in the Netherlands that first asked the respondent which of the nine types of personal data were used to target voters during election periods. They were then asked about the acceptability of the types of data they had identified as being used. The main result of the filter was to reduce the Dutch sample size and the proportion of don't know responses. Supplementary File,

Appendix 2, shows the final *N* and frequency distributions for each country. These adjustments are not expected to impact our findings to any great extent since our analysis is focused on comparing the relative levels of acceptance across the different types of data within each country rather than absolute levels across countries and the strength of the relationships between individual-level characteristics and acceptance levels. Finally, to help control for any bias introduced by the filter we correct for the over-reporting of the "don't know" responses, by removing them in all three datasets before reporting our results. To test our hypotheses, we present descriptive findings about the acceptability of microtargeting by country and data type. Thereafter, we run ordinal regressions to examine how acceptance of microtargeting varies between socio-demographic groups.

6. Results

Figure 1 presents the acceptance rates across countries for observed or Type 1 data and unobserved or Type 2 data in political microtargeting. Adopting the rubric of majority versus minority acceptance for the different types of data, H1 is broadly supported in that a majority of the respondents in all countries considered age fairly or very acceptable for targeting. Over half of the US respondents also felt that gender was acceptable, and just under half viewed ethnicity as within scope. Dutch and German respondents were somewhat less favourable toward the use of gender compared to Americans, and considerably lower in acceptance of ethnicity. Turning to H2, again we find broad support in that most of the Type 2 data are seen as less acceptable than Type 1, across countries, an exception being relationship status, which hovers around the same level as gender, particularly in Germany and the Netherlands. This might be explained by the fact that respondents interpret this to be marital status, i.e., an officially recorded if not observable statistic, rather than their informal situation. Alternatively, this can be because relationship status is, compared to sexual orientation or ethnicity, less of an identity-defining, discriminating feature. Notably, sexual orientation is regarded as the least acceptable basis for political microtargeting in all countries, while other inferred or unobservable traits vary cross-nationally. In the Netherlands, personality traits are viewed most negatively for targeting purposes, while Germans are particularly opposed to the use of religious views. The latter opposition may be linked to historical and current tensions between different religious and ideological groups in Germany. In line with H2, data on political views are deemed the most acceptable of all types, with clear majorities in all countries regarding them essentially as "fair game" for parties to use in targeting their messages.

Overall, therefore, the descriptive findings largely support our expectations. They confirm that not all forms of data are viewed as equally problematic for political microtargeting, and show differences across countries. To probe these findings further, we explore differences in acceptance at the individual-level and compare these patterns across countries. We do so by conducting nine separate ordinal regression analyses in each country. The models regress the acceptability scores for each of the nine types of data separately on measures of age, gender, education and political leaning, political interest, and ethnic/migration background on perceptions. Reflecting the particularities of each case study, our operationalisation of the independent variables varies slightly across the three cases. The variable descriptions for each country are provided in Supplementary File, Appendix 3. The results for each regression analysis are presented row-wise by country in Tables 2, 3, and 4. The unstandardized coefficients and their significance levels are reported to allow for comparisons of whether the acceptance of political microtargeting is more likely to occur based on the socio-demographic characteristic as a variable. The odds ratios and standard errors are reported in full in the Supplementary File, Appendix 4.

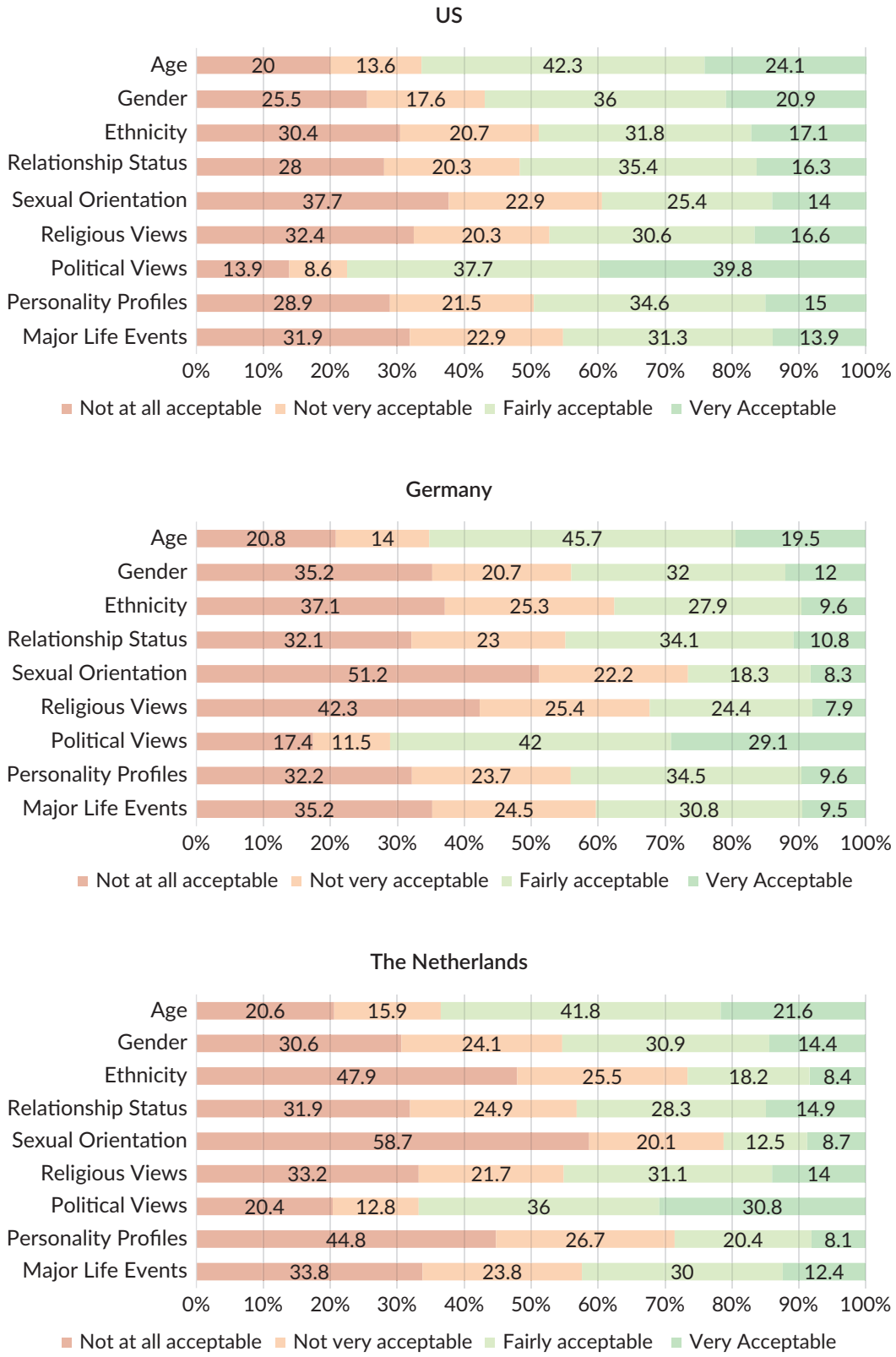

Figure 1. Comparing data acceptability in the US, Germany, and the Netherlands.

Table 2. Ordinal regression results for the US sample predicting the acceptability of targeting based on different data points.

Predictor	Observable traits (Type 1)			Unobservable traits (Type 2)					
	Age	Gender	Ethnicity	Relationship status	Sexual orientation	Religious views	Political views	Personality profiles	Major life events
Age	−0.01***	−0.01*	−0.01***	−0.01***	−0.02***	−0.01***	−0.01***	−0.01***	−0.01***
Male	0.23**	0.24***	0.30***	0.30***	0.36***	0.32***	0.13	0.32***	0.021**
Education									
Up to HS/some college	−0.11	−0.09	−0.18	−0.20	−0.14	−0.24	0.19	−0.12	−0.05
College qualification	−0.02	0.11	0.05	−0.03	0.08	0.00	0.38*	−0.06	0.02
Ideology (liberal–conservative)	−0.01	0.01	0.01	0.05***	0.01	0.07***	−0.16	0.03**	0.05***
Political interest (low–high)	0.08***	0.07***	0.05**	0.04**	0.05***	0.053**	0.10***	0.03*	0.04*
Race/ethnic background									
Black	0.51***	0.79***	0.70***	0.44***	0.56***	0.47***	0	0.59***	0.39***
Hispanic	0.08	0.35***	0.44***	0.27**	0.21*	0.15	−0.24*	0.22*	0.20*
Other	−0.06	0.01	0.02	−0.05	−0.01	−0.10	−0.40**	0.05	−0.03
Pseudo R^2	0.01	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.01
N of observations	3,110	3,113	3,100	3,033	3,044	3,095	3,147	2,932	3,014

Notes: * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$.

Table 3. Ordinal regression results for the German sample predicting acceptability of targeting based on different data points.

Predictor	Observable traits (Type 1)			Unobservable traits (Type 2)					
	Age	Gender	Ethnicity	Relationship status	Sexual orientation	Religious views	Political views	Personality profiles	Major life events
Age	−0.02***	−0.02***	−0.02***	−0.02***	−0.03***	−0.02***	−0.02***	−0.02***	−0.02***
Male	0.20**	0.07	0.14*	0.22***	0.26***	0.18**	0.11	0.18**	0.10
Education									
Finished lower secondary school	−0.23**	−0.21*	−0.28**	−0.36***	−0.38***	−0.26**	−0.08	−0.25**	−0.25**
Finished upper secondary school	−0.18*	−0.26**	−0.49***	−0.46***	−0.48***	−0.36***	−0.01	−0.42***	−0.39***
Ideology (left–right)	0.01	−0.01	0.06***	0.03*	0.03*	0.09***	−0.02	0.01	0.04*
Political interest (low–high)	0.10**	0.02	0.03	0.04	−0.03	0.03	0.19***	0.03	0.01
Migration background	0.29**	0.31**	0.40***	0.31**	0.38***	0.37***	0.16	0.34***	0.34***
Pseudo R^2	0.02	0.02	0.02	0.02	0.03	0.02	0.01	0.02	0.02
N of observations	4,003	3,935	3,915	3,950	3,953	3,952	3,984	3,849	3,894

Notes: * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$.

Table 4. Ordinal regression results for the Dutch sample predicting acceptability of targeting based on different data points

Predictor	Observable traits (Type 1)			Unobservable traits (Type 2)					
	Age	Gender	Ethnicity	Relationship status	Sexual orientation	Religious views	Political views	Personality profiles	Major life events
Age	−0.03***	−0.02***	−0.01*	−0.02**	−0.01	−0.01*	−0.02***	−0.01	0.00
Male	0.23	0.40*	0.49**	0.58**	0.42	0.21	0.20	0.53	−0.06
Education-level									
Middle	−0.51*	−0.14	0.06	−0.92**	−0.03	−0.02	−0.23	0.08	−0.28
High	−0.07	0.02	−0.01	−0.62*	0.01	−0.19	0.14	−0.54	−0.37
Ideology (left–right)	0.01	0.06	0.16***	0.07	0.10	0.08**	0.07*	−0.02	0.03
Political interest (low–high)	0.12	0.10	−0.04	0.02	0.00	0.05	0.10	0.04	−0.08
Migration background	−0.13	−0.25	0.06	−0.14	0.28	−0.40	−0.17	−0.21	−0.42
Pseudo R^2	0.03	0.02	0.03	0.03	0.02	0.01	0.04	0.02	0.01
N of observations	764	508	545	374	255	584	683	212	279

Notes: * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$.

Across these tables, we see relatively consistent effects for age, gender, and to a lesser degree ethnicity or migrant background on acceptance of different data. Typically, younger people, men, and those with an ethnic/migrant background are more likely to accept the use of a wider range of data than older generations and women. For age, we see a significant and repeated negative relationship across all forms of data, particularly in the US and Germany. The age predictor is less pronounced in the Netherlands, emerging primarily for targeting based on age, gender, ethnicity, relationship status, and religious and political views. Regarding gender as a predictor of attitudes, again the divide is stronger and more consistent within the US and Germany, with targeting based on age, ethnicity, relationship status, sexual orientation, religious views, and personality profiles dividing men and women. Perhaps most interesting is the more positive views among ethnic minorities toward targeting. In the US, Black and Hispanic respondents are typically more open to microtargeting using all data forms although notably there appears to be a split here on the use of political views, with the former remaining more in favour than White voters while the latter are more likely to reject their use. In Germany, those with a migrant background were also more likely to accept the use of all data for microtargeting, again except for political views—mirroring the US. The Netherlands appears again to be less clearly divided, with no significant difference in attitudes between those with and without a migration background.

More cross-country variance is observed in the relationships between certain acquired traits and the acceptance of different types of personal data for microtargeting. Education emerges as often significant in Germany, with those who completed secondary school education being less inclined to accept the use of a range of personal data for targeting than those lacking a high school diploma. Interest in politics also matters, but mainly in the US. Finally, ideology does appear to influence acceptance levels across all countries, but mostly for Type 2 unobserved characteristics. In the US and Germany, right-leaning respondents tend to be more accepting of microtargeting based on a wide range of characteristics, including relationship status, religious views, and major life events.

The results from Tables 2, 3, and 4 confirm that individual characteristics significantly influence the extent to which people consider the use of certain types of data to be acceptable. They also suggest that the impact of these traits is quite consistent cross-nationally particularly regarding the use of Type 1 data, with age and gender following a similar pattern of influence on acceptance in each country. More differences emerge with Type 2, suggesting that cultural norms and national context play a stronger role in shaping what citizens consider to be “in” or “out of scope” when it comes to more private, undisclosed types of data.

7. Discussion and Conclusion

This article has considered whether citizens are negatively disposed toward microtargeting. We have argued that acceptance of microtargeting varies based on the type of data used and tested these expectations with comparable opinion data from the US, Germany, and the Netherlands. Our results confirm that the public does not view all forms of political microtargeting as equally problematic. In line with our expectations, the use of more publicly accessible forms of data (Type 1) is generally regarded as more acceptable than the use of non-observable inferred traits (Type 2), although there are notable exceptions concerning ethnicity and political opinions respectively. Microtargeting based on age and political views is accepted by most of the population in all three cases, with gender and relationship status also considered within scope by a majority of the US population and a smaller but significant minority of the Dutch and German public. In line with our expectations, generally, more private and non-observable forms of data are seen as off-limits for political

targeting. However, whereas the use of sexual orientation is similarly unacceptable across the cases, the use of religion is particularly frowned upon in Germany, and personality profiles are less accepted in the Netherlands. When we examine the individual correlates of these views, further similarities emerge among countries in terms of the significant role of demographic traits, with younger voters and men typically more accepting of parties' use of personal data to target their messages in all three cases. Ideological outlook also matters, with the US, Dutch, and German voters who lean right proving overall more accepting of microtargeting based on personal data. Perhaps most interestingly, we find that voters with an ethnic/migrant background in the US and Germany are generally more comfortable with the use of personalised data for targeting including ethnicity, compared to their non-ethnic counterparts.

These findings are important for our understanding of microtargeting, and efforts to regulate it. While the results do not suggest strong public support for personalisation in political advertising, they indicate that a "one size fits all" approach to the regulation of microtargeting is not the most appropriate policy response. While certain forms of undisclosed (Type 2) personal data like sexual orientation are viewed as inappropriate for political targeting by a large majority of the population cross-nationally, others like religious views and major life events appear to be more context-specific in terms of how concerned voters are. Our finding that those with an ethnic/migrant background are in many cases more positively disposed toward targeting that is based on observable characteristics, including ethnicity, raises important questions about the current restrictions imposed on its use in campaigns. It suggests they may have had a more positive experience of such contact, and perceived it as helpful to rally their vote. Banning political targeting, particularly in countries with smaller groups of ethnic populations that are harder to reach through broadcasting, could have the adverse effect of reducing the mobilization of minoritized voters. Similarly, political views, although categorised by the EU General Data Protection Regulation as "sensitive" and therefore restricted or prohibited in voter targeting, are widely seen as legitimate and perhaps even necessary for parties to rely on when targeting messages to voters.

Overall, our study suggests more nuanced work is needed to understand voters' orientation to microtargeting and particularly whether the use of different personal data affects its perceived unacceptability. Essentially, banning all forms of political microtargeting on grounds of public concern and minimizing harm to voters may be taking the proverbial sledgehammer to crack the nut, and runs the risk of both exaggerating their concerns, in that all data are not considered equally problematic, and perhaps more importantly, overlooking its potentially positive outcomes.

Drawing these conclusions, we recognise that many questions remain. Our study examined attitudes to individual data points in isolation and hence does not examine how people view data when combined to build voter profiles. We also used data gathered from two different projects, limiting the comparability of our findings. Future research should seek to conduct more directly comparable analysis to aid our understanding.

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Conflict of Interests

In this article, editorial decisions were undertaken by Stephanie Luke (University of Sheffield, UK).

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

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Reaching the Voters: Parties' Use of Google Ads in the 2021 German Federal Election

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Abstract

Election campaigns during the pandemic showcased the increased use of costly digital campaigning by parties. While many studies focus on the use of Facebook, X (formerly Twitter), and other social networking sites during elections, parties' use of Google Ads remains widely unstudied. This is surprising given that parties spend a substantial proportion of their budget on Google Ads and Google reports on this spending and other details of the ads in its *Transparency Report*. Based on the equalisation vs. normalisation thesis, we identify party factors (size, age, government/opposition status, and electoral strongholds) that affect parties' use of this instrument to a different degree in their campaigns. We aim to highlight parties' use of Google Ads during the campaigns for the 2021 German Bundestag election, relying on the official data provided via Google's Ad Library. We discuss both empirical work on the factors that determine the use of Google Ads and conceptual work on the merit and perils of such ads in democratic elections, and we present descriptive and exploratory findings of our deep dive into the archive of Google Ads.

Keywords

e-campaigning; elections; Germany; Google Ads; political communication; political parties; transparency

1. Introduction

Digitalisation is expensive for parties. The recent debate on raising the overall cap of public party financing in Germany neatly displayed this dilemma (Dorfer, 2023). Election campaigns during the pandemic showcased the increased costs of digital campaigning. While many studies focus on the use of Facebook, X (formerly Twitter),

and other social networking sites during elections, parties' use of Google Ads remains less studied (the exception being Medina Serrano et al., 2020). This is surprising given that parties spend a substantial proportion of their budgets on Google Ads and Google reports on this spending in its *Transparency Report* (Fitzpatrick, 2023). Based on the equalisation vs. normalisation thesis, it can be expected that parties will use this instrument to a different degree in their campaigns. We identify various party factors, such as size, age, government/opposition status, and electoral strongholds, which potentially affect the degree of its use. However, recent studies also indicate the possibility of the digital convergence of party digitalisation, whereby larger and smaller parties become more similar in their potential to employ digital tools (Lupato & Meloni, 2023).

Our contribution is part of a project to highlight parties' use of Google Ads during national and European elections. We analyse the party campaigns for the 2021 German Bundestag election, relying on the public data provided via Google's Ads Library. Our study establishes some fundamentals by providing certain descriptive information via the following questions: Which parties employ Google Ads? To what degree do they do so in terms of targeting and sophistication? Can we identify different phases in the roll-out of Google Ads? What content is displayed (videos, images, text, mixed)? We begin with (a) a general view on parties' digital campaign strategies, then (b) we discuss, based on the existing literature on e-campaigning, the party factors that potentially determine the different use of Google Ads in elections, and (c) we present the findings of our explorative analysis of Google Ads. We contribute to the existing research on data-driven campaigning (DDC; Dommett et al., 2024) and microtargeting (Votta et al., 2024) in the following ways: First, we expand the knowledge about parties' activities beyond Meta or X by focusing on Google, which belongs to Alphabet Inc., another large competitor on the digital campaign market. Second, we contribute to the understanding of the political campaign around the 2021 Bundestag election, which was unique in several aspects: (a) It was the first time in almost 50 years that the incumbent German chancellor was not the Spitzenkandidat of one party; (b) the German Greens had a realistic chance of leading the government; and (c) three candidates were in the race to become the next chancellor, and the fourth strongest competitor was the Alternative for Germany (AfD), Germany's radical-right populist party. These incidences shaped an uncertain campaign with a close outcome. And third, we provide insight on political campaign practices in a national context where new regulation such as the Digital Services Act (DSA) proposed in 2019 was discussed but not yet fully implemented. Although the DSA does not directly regulate parties, it nonetheless regulates the online platforms they principally use during election campaigns. The DSA aims to provide a secure online communication environment. Intermediaries are now liable for illegal content and must moderate, restrict, and remove such content. However, it contains little regulation on disinformation and fake news. For this, the DSA introduces transparency measures such as the public archiving of all ads and independent audits to assess compliance (Berberich & Seip, 2021; European Parliament and the Council of the European Union Regulation, 2022, Art. 37 DSA). This aims to increase transparency in personalised advertising, especially for election campaigns (Borucki & Kettemann, 2024). Therefore, our analysis provides an important explorative stocktaking of the setting before major changes in regulation occurred.

2. E-Campaigning: Aims, Types, and Practices of Political Parties

Campaigns are intended to influence the thinking and/or the actions of the group of people addressed. Fitzpatrick (2023) and others (for an overview see Baringhorst, 2009) identify distinct but overlapping forms of campaigns which address different dimensions: the cognitive, the evaluative/affective, and the behavioural. Throughout the election campaign season, political parties mainly target the latter two

dimensions in their (digital) campaign communication. With persuasion campaigns consisting of evaluative/affective communication elements, parties aim to move the target group's attitude in a certain direction (in their favour). Mobilisation campaigns go one step further, aiming to influence the behaviour of citizens to go vote (or not) for a certain party. Although the aim of political campaigns remains the same over time, the techniques available and used by parties (Roemmele & Gibson, 2020, p. 599) and the expertise needed to use them effectively have changed substantially (Negrine & Lilleker, 2002, p. 312). Roemmele and Gibson (2020, p. 599), for instance, discuss three historical eras and the current era: (a) the period between the world wars (personal contact on the ground); (b) the post-war phase (the influence of mass media, especially television); and (c) the period from about 1990 onwards (the increased use of campaign specialists; commercialisation). Finally, there is the fourth and current era that has produced two types of (electoral) campaigns: scientific and subversive. Both types of campaigns are characterised by the enormous importance of data, which is why they are frequently described as DDC (Kefford et al., 2023). DDC is defined as campaigning strategies that rely on "accessing and analyzing voter and/or campaign data to generate insights into the campaign's target audience(s) and/or to optimize campaign interventions" (Dommett et al., 2024). As a result of this development, Roemmele and Gibson (2020) see two types of (election) campaigns: The first makes use of scientific logic by "measuring" the electorate and thus tailoring election advertising as much as possible to the target group, or even the target person. In essence, it is about informing and mobilising one's own camp. In contrast, subversive campaigns aim to spread misinformation and demobilise the opposing camp (Roemmele & Gibson, 2020, p. 606). One can, thus, literally speak of a democracy-destroying character. For both types, however, the digital sphere is a crucial space for action, which is why e-campaigning is a central building block. In short, e-campaigning can be understood as a series of coordinated communication acts that aim to inform, convince, and/or mobilise a certain group of users online within a certain time. However, e-campaigning can differ across parties due to a variety of factors.

3. Party Factors Explain Online Ads Use

Which measures are used by political actors, such as political parties (or civil society organisations), depends on several factors primarily based on the resource endowment, which includes financial resources (Fitzpatrick, 2023) but also competence in dealing with web-based technologies. Here we can speak of a digital repertoire (Nitschke & Donges, 2018) or digital capital (Fitzpatrick, 2020; Ignatow & Robinson, 2017). Examining e-campaigning measures, various criteria thus emerge, including the type of measures and the means used by parties. Building on the equalisation vs. normalisation thesis and Kruschinski et al. (2022), we argue that the use and content strategies by parties can vary depending on a variety of factors.

The first aspect affecting both e-campaigning use and content strategies by parties is resources in terms of the funds needed to pay for ads and hire campaign staff. Depending on the size of a party's campaign budget, it can buy more or fewer ads. However, parties with more members might need to spend less on ads as their members and supporters will produce more organic content on their behalf while smaller parties cannot rely on this strategy (Gibson, 2015). In many cases, larger parties also have more money and so they can spend more on their campaign. In contrast, for parties with fewer financial resources, e-campaigning allows them to "direct their resources towards the 'right' segment of voters, thereby avoiding 'inefficient' expenditure on individuals deemed unlikely to be persuadable by the party or candidate" (Votta et al., 2024, p. 5). Nevertheless, we expect parties with many members and high campaign budgets to post more ads and parties with fewer human and financial resources to post less.

Apart from resources, party age might also play a role with newer parties having to get by with fewer members and thus fewer volunteers on the ground and therefore having a greater need to buy more ads during the campaign. However, this need for new parties to compensate for the lack of other resources with ads might differ across regions, leading to a nuanced use of geotargeted ads where they have fewer other campaign resources. Returning to the equalisation vs. normalisation thesis, Gibson and Römmele (2001) argue that the transition to new campaign practices requires strong leadership and financial rescues, hence established parties might be more likely to adopt new communication. In contrast, newer parties might be more "digital-native" and, as outlined, might depend more on new communication tools, such as Google Ads.

Next, parties can also differ regarding content strategies by buying ads consisting of images, videos, and/or text. Parties who post more photos "place the focus on the individual politician rather than the political party, thereby expanding the political arena for increased personalized campaigning" (Enli & Skogerbø, 2013, p. 758). This also aligns with certain campaign functions outlined by Magin et al. (2017), such as increasing parties' branding and making voters aware of their candidates. In contrast, parties posting more text stress issue priorities perceived as popular or "wedge" issues by voters during the campaign (Ansolabehere & Iyengar, 1994; Hillygus & Shields, 2009). Overall, online tools can be used by policy-seeking parties (Römmele, 2003) to spread text and videos on topics for which they possess policy expertise in general and target a specific group. Parties with more vote- and office-maximising strategies can use ads based on videos and images of candidates and their encounters with voters, and little to no policy info. The latter reinforces the trend towards the personalisation of politics and thus political communication.

In addition, parties are not unitary actors. Different organisational sub-units or regional sub-branches might act differently or require more or less support through online ads. The possibility of geotargeting leads to differences in use and specifications of digital campaigning and ads in specific regions. For example, parties can target main battlegrounds, strongholds, urban vs. rural, and, in national or regional border regions, parties can exclude the other side of the border (Stuckelberger & Koedam, 2022). The extent of this regional targeting strategy depends on election system factors with the German system requiring such a strategy. Beyond this, different party organisation units can create targeted ads based on individual characteristics of voters, such as gender and age (Ohme, 2019), to appeal to specific socio-demographic groups (Stuckelberger & Tresch, 2022), with the latter, for example, paid by the party youth organisation. In line with the existing literature, we expect that, due to their intuitive nature, location-based and socio-demographic criteria are frequently used by parties (Votta et al., 2024). Furthermore, Votta (2021) shows that approximately half of the political ads seen during the 2021 German federal election on Facebook used at least three different criteria. We also expect the use of multiple targeting (inclusive or exclusive) in parties' use of Google Ads, although Google allows only three categories for targeting: age, gender, and geographical area (see Section 4.2).

Furthermore, parties' ad strategies and use might differ depending on their role in government or opposition. In government, parties are likely to use ads to mobilise their former voters and increase the chances of re-election. Opposition parties need to inform and interact with the electorate to gain as much support as possible (Bawn & Somer-Topcu, 2012). This might lead opposition parties to post more ads with new content, to generate public and media attention and stay in the mind of the new electorate. This strategy can also be used by parties that are both in opposition and (relatively) new. Party newness, therefore, might accelerate the adoption of this strategy.

The literature also highlights that the timing of ads is a key component of political marketing and plays a crucial role in gaining electoral benefits (Fowler et al., 2021; Sides et al., 2018). Early in the campaign, ad campaigns can be created to test which audiences are most receptive at specific campaigning times and to specific themes. This for example could be done to test reactions through ads in relation to other campaign events, such as upcoming TV debates. This might overlap with the government or opposition status of parties as most TV debates are limited to the potential winner or coalition partners. For them, ads can pave the way to success in TV debates, while opposition parties might buy more ads right after the debates and challenge what has been posed by the frontrunner. Further, the timing of ads by established parties might be concentrated towards the end of the campaign period to mobilise existing voters in a final mobilisation and get-out-the-vote drive. At the same time, for new parties to gain attention and attract new voters, they need not only (a) more ads spread out along the entire period but also (b) an intensification towards the end as ads closer to election day are the most effective (Panagopoulos, 2011). This strategy of gaining prominence first and convincing voters eventually appears especially promising in close races with many undecided voters.

Last, we consider party ideology. For some parties, the use of paid online ads can be a method of bypassing low or negative coverage by mainstream media. For other parties, their ideological positions are diametrically opposed to the business models of the large web corporations. In this respect, the use of these platforms is critically discussed among them. On the other hand, the renunciation of the use of social media in political competition is hardly justifiable, considering that potential voters can be addressed there. A solution to the dilemma may be seen in allowing presence on the platforms but restricting the paid advertising that occurs on them (Fitzpatrick et al., 2023). Thus, following the literature we expect right-wing parties to use Google Ads more (Gibson & Römmele, 2001) and left-leaning parties to use it less due to the latter's more critical view on tech giants and stronger support for data protection legislation (Kruschinski & Haller, 2017). Indeed, Vliegenthart et al. (2024) find that right-wing political self-placement increases general levels of the acceptability of targeted ads further, thus increasing the use of such communication techniques by right-wing parties. Furthermore, we expect the use of different targeting and/or exclusion criteria to correspond with parties' voter bases (Stuckelberger & Koedam, 2022): Right-wing parties tend to target older and rural populations, while left-leaning parties focus on younger and urban populations.

In summary, the central research question of this article is what factors explain parties' use of Google Ads during their national election campaigns. We examine how e-campaigning use and content strategies in the form of Google Ads vary by parties' resources, ideology, size, and age but also their government/opposition status, and across the campaign period. Therefore, after outlining the data and method applied, we address in the findings section the following key aspects of our main research question: Which parties employ Google Ads? To what degree do they do so in terms of targeting and sophistication? Can we identify different phases in the roll-out of Google Ads? What content is displayed (videos, images, text, mixed)?

4. Research Design

4.1. Case Justification and Description: The 2021 German Federal Election

In this article, we focus on e-campaigning embedded in the political campaigns of parties during the German 2021 federal election campaign (first-order election) as the influence of these election campaigns has potentially the greatest impact on democratic decision-making processes and the legitimacy of their results in

the political system of the Federal Republic of Germany. Although online campaigns in the US are important reference points (Hindman, 2005; Kreiss, 2012), German parties also took their initial steps in the digital sphere at an early stage. Regarding visible measures, the adoption of websites was observable as early as 1996 by German parties. During the 2021 election campaign, parties used various visible possibilities of web-based technologies: Spotify podcasts, YouTube videos, and digital party conferences are just a few examples (cf. also Fitzpatrick & Jöst, 2021). Google (including YouTube), studied here, is a key player, with over five million euros spent on political advertising in Germany. Of the German parties, the former chancellor Angela Merkel's Christian Democratic Union (CDU) and Bündnis '90/Die Grünen (the Greens) spend the largest amounts on advertisements according to Google's *Transparency Report*. Considering these figures, e-campaigning in the 2021 federal election campaign took on an important role for all parties. Regarding the regulation of political online advertising, a recent adjustment, i.e., the Medienstaatsvertrag (Media State Treaty), was implemented and has been effective since November 2020 in regulating political online advertising, similarly to political advertising via broadcasting, which had been previously regulated through the Rundfundstaatsvertrag. Apart from campaigns before the elections for the German Bundestag or the EU Parliament (Staatsvertrag der Bundesländer, 2020, § 68 (2)), the Media State Treaty does not allow political, ideological, or religious advertising via broadcast media (Staatsvertrag der Bundesländer, 2020, § 8 (9)), which includes broadcast-like media such as media libraries, YouTube channels, or podcasts (Staatsvertrag der Bundesländer, 2020, § 74). In addition, the responsible source of the ad needs to be identifiable (Borucki & Kettemann, 2024, pp. 6–7). However, the main concern of this regulation is transparency and the avoidance of discrimination (Klausa & Meyer, 2021). The legal character is also worth noting as it is a contract by the German Länder with so-called media intermediaries; it is not federal law passed by parliament.

4.2. Data and Method

Invisible measures (Fitzpatrick, 2023), the main focus of this article, were also used in the online campaign for the 2021 German federal election. These include, for example, DarkAds in social media, search-engine-optimised content design on the website (SEO), or search-engine advertising (SEA). These forms of campaigns are often based on covertly collected information about users, which then enables advertisers to specifically address narrowly defined target groups (microtargeting). These possibilities have emerged as a result of platformisation, as Facebook, Google, and others are not only to be understood as websites but also as entities behind whose user interface lies a complex architecture that documents user behaviour and makes it commercially usable (for more details, see Eisenegger, 2021). The legal requirement to introduce so-called ad libraries and provide access to them via developer interfaces (APIs), sheds some light on the opaque ad industry.

The Google Ad Library refers to a transparency initiative by Google that provides a publicly accessible database of political ads that run on its platforms (Google Search, YouTube). The purpose of the Google Ad Library is to increase transparency around political advertising: Who is running political ads? How much are they spending? Which demographics are they targeting? Google introduced the Ad Library and the *Transparency Report* in 2021, later than other platforms. The data set provided is, however, easy to access and quite comprehensive including the exact advertisement element linked in the data set (video, image, or text), information about the advertiser, geotargeting (areas to be included and excluded for specific ads), display periods, and other demographic markers for microtargeting (age, gender). Google provides a comprehensive Ads policy (Google, 2024) for political ads. Ads must comply with the regulations and laws of

the respective country and Google's own policy. Advertisers also need Election Ads verification for the respective region, and a "Paid for by" disclosure ensures additional transparency.

For this study, we built a subset including all ads displayed during the last eight weeks before the 2021 Bundestag election (main campaign period) and including only political ads issued by political parties and their chapters (for complete documentation, please see the Supplementary Material). This left us with 5,131 observations covering the period from 27 July 2021 to 26 September 2021. We grouped the advertisers on the party level (15 advertising parties in the sample) and additionally created a variable capturing the party level (federal, state, local party organisation; youth organisations). We used RStudio 2024.04.2 (R version 4.4.1) and the packages readr (2.1.5), openxlsx (4.2.5.2), dplyr (1.1.4), ggplot2 (3.5.1), reshape2 (1.4.4), labelled (2.13.0), expss (0.11.6), maditr (0.8.4), and tidyr (1.3.1); for full documentation, please see the HTML file or the Quarto Markdown-file in the Supplementary Material.

5. Google Ads in the 2021 German Election Campaign

A first indicator of interest is which parties are in the sample, ergo advertised via Google services during the campaign season. Figure 1 provides an overview. While the observation that all parties in the federal parliament appear in the sample is intuitive (they are the major players), it is surprising to what degree the first-time contender Volt was active. Volt is among the five parties with the most advertising elements in the sample. The party with the most advertising elements is the AfD. This is in line with findings of previous studies indicating that populist radical right parties campaign extensively via the web (Engesser et al., 2017; Ernst et al., 2017). For further analysis, we mainly focus on the parties in parliament (Social Democratic Party [SPD], CDU, Christian Social Party [CSU], Greens, Liberal Democratic Party [FDP], Left, AfD) and Volt.

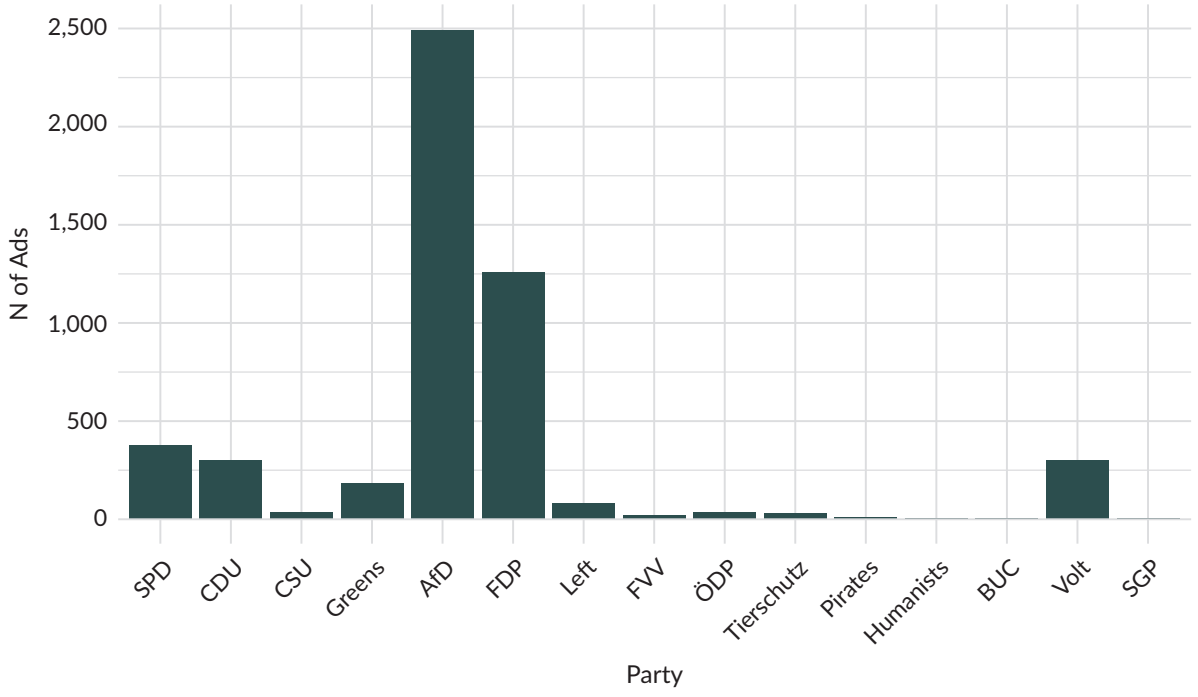

Figure 1. Parties advertising via Google services. Notes: FW = Free Voters, ÖDP = Ecological Democratic Party, BUC = Alliance C—Christians for Germany; SGP = Social Equality Party.

Although this information is already quite revealing, it does not allow for conclusions on the particular fashion in which parties employed Google services regarding the reach, the origin, or the period during which the advertising element was displayed. The main origin of ads was the federal party organisation (84.8%). Parliamentary groups (federal, state, and local) did not use Google services to campaign. This is fairly unsurprising considering German campaign regulation, where parliamentary groups are not allowed to use their funds for election campaigning (Bundesministerium der Justiz, 2021, § 58 Abs. 4 AbgG). However, it is nonetheless surprising that parties at the local level were much more involved in campaigning online via Google (10.1%), while youth organisations appeared to opt for other modes of addressing their target group (only 0.2% of ads in the sample by party youth organisations; for more detail see the HTML file in the Supplementary Material).

In more detail, it is of interest what type of advertising was used. The Ad Library distinguishes between images, text, and videos. Regarding production costs, videos are more expensive, yet—and especially regarding YouTube as part of the Google family—videos are an important element of the campaigns, as displayed in Figure 2. While the AfD relied heavily on images, they still had the second-highest number of video ads; only the FDP used more videos in absolute numbers. The FDP also employed the most text-based ads (in absolute numbers; Table 1).

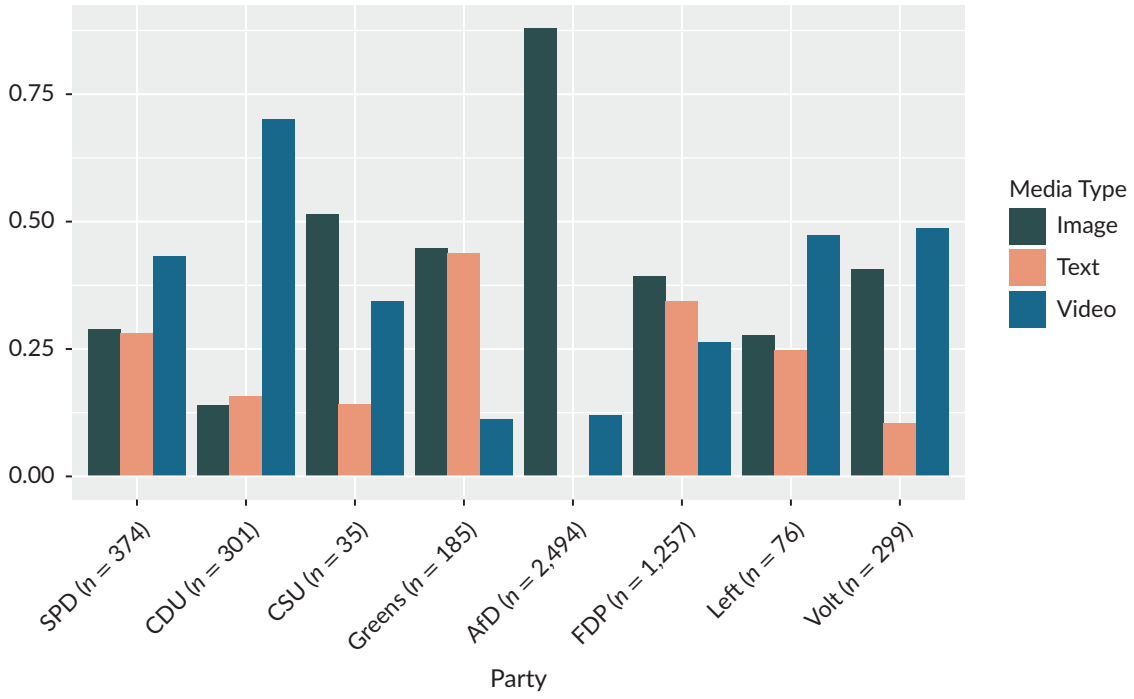

Figure 2. Share of ad types by party.

Table 1. Ad types by party (absolute numbers).

	SPD	CDU	CSU	Greens	AFD	FDP	Left	Volt	other
Image	108	42	18	83	2,191	493	21	122	6
Text	105	48	5	81	4	433	19	31	22
Video	161	211	12	21	299	331	36	146	82

Based on this information, we are unable however to tell whether the same image, video, or text element was displayed more than once, for example in different ZIP-code areas or at different points of time during the campaign period. The data set contains additional information on the length (in days) an ad element was displayed online (Figure 3). We can observe the different strategies employed by different parties: Whereas the AfD preferred ads displayed for only a few days, the SPD, the Greens, and the CDU opted mainly for ads displayed almost throughout the entire observation period. The FDP employed a mix of short-, medium-, and long-term ads, similar to Volt and, to a lesser degree, the Left party.

Leaving the distinction by party aside and focusing on the time ads were displayed, Figure 4 enables the identification of different periods over time. We can see modest online ad activity throughout the first half of August. The peak of new online ads being rolled out is 1 September 2021. Reasons for this might be the co-occurrence of different events, such as the first TV debate on 29 August 2021, the end of the summer vacation in several Länder, with citizens returning to their homes, or simply the symbolic start of the election month and the last three weeks ahead. We also found that new ads were mostly rolled out during the week, not on weekends. If we bear in mind that the three TV debates with the three most promising candidates (Scholz for the SPD, Baerbock for the Greens, and Laschet for the CDU) always took place on Sundays, i.e., 29 August, 12 September, and 19 September 2021, this is plausible when we assume that the online campaign was preparing the ground for these campaign highlights. When we included information on the parties (Figure 5), we noted that before the first two debates, it was mainly the contestants' parties that rolled out ads via Google services. Before the first and the second debate, the Green party rolled out ads during the week leading up to the debate and to a lesser degree before the third debate. For the SPD, the TV debates were accompanied by online ads during the week leading up to the debate and, for the first and third debates, heavily on debate day itself. Similarly for the CDU, we find ads leading up to the debates.

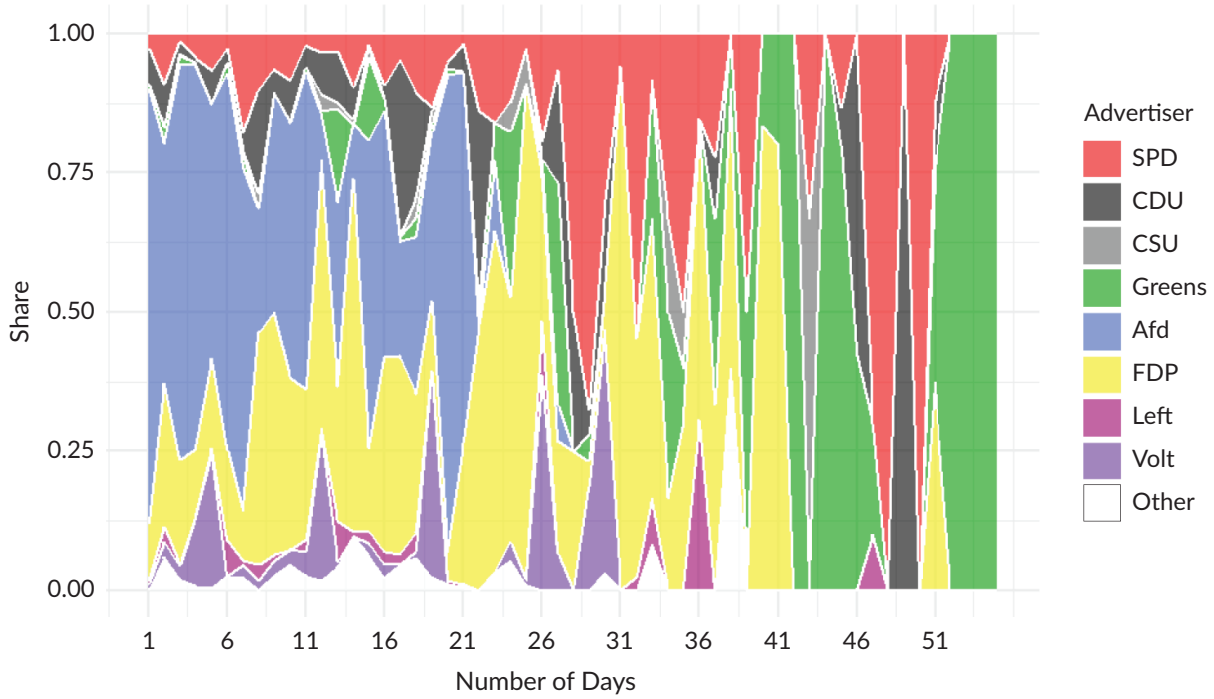

Figure 3. Number of days the ads were displayed per party.

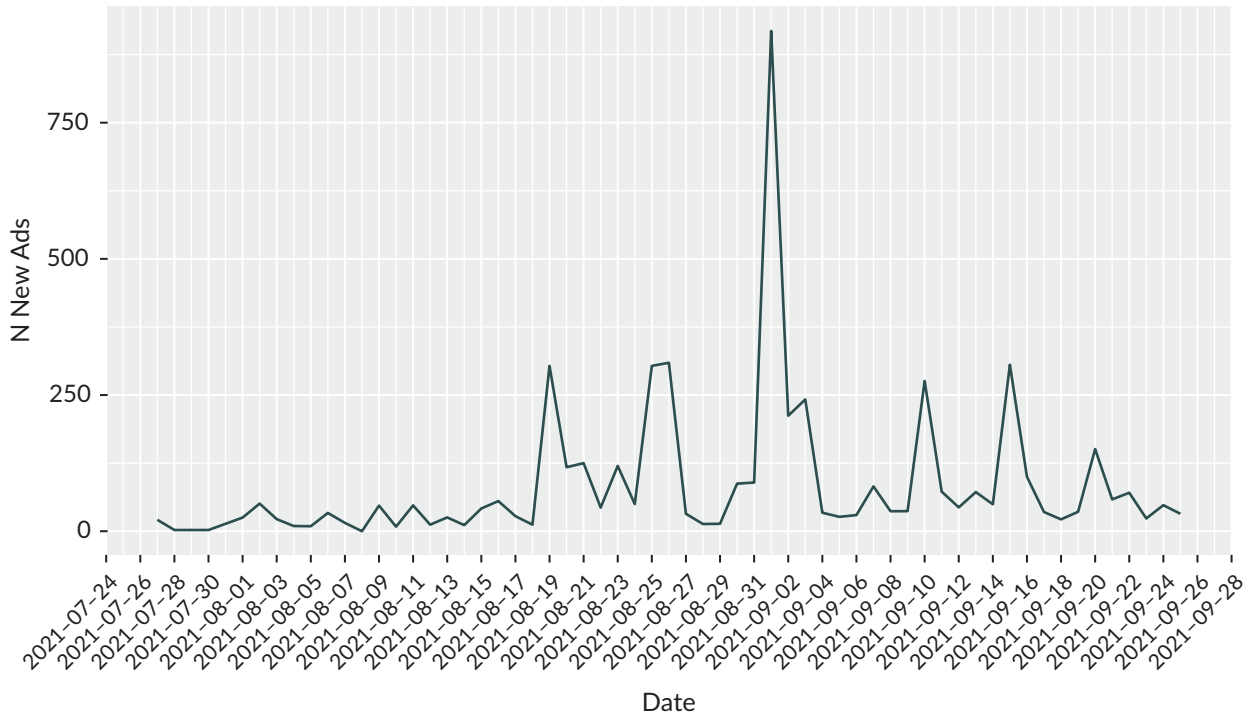

Figure 4. Ads rolled out throughout the observation period (all parties; cf. Figure 1).

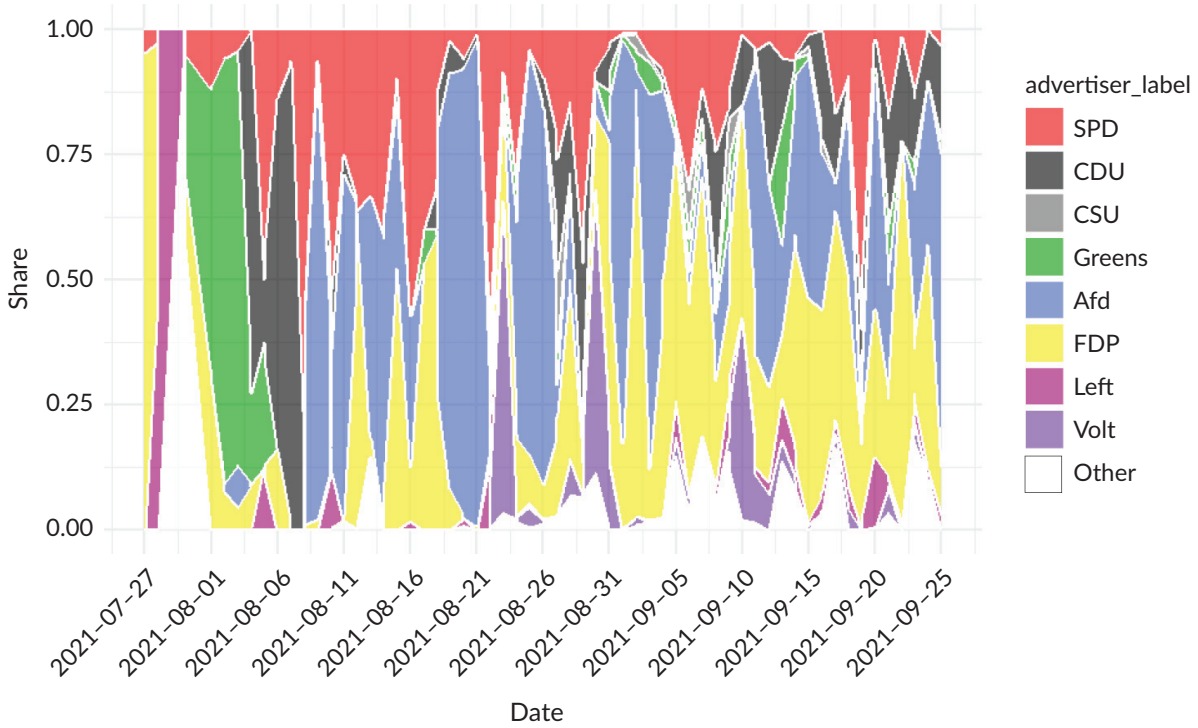

Figure 5. Share of party ads during the observation period.

Regarding online campaigning, microtargeting is a large concern of scholars, regulators, and the public (Kefford et al., 2023; Kruschinski & Haller, 2017; Zuiderveen Borgesius et al., 2018). The Google Ads Library contains information as to what extent parties targeted specific demographics and, therefore, allows for remarks on the

relevance of microtargeting via Google services in the 2021 Bundestag campaign. The parties considered in this study did not target individuals in terms of their gender (see HTML file in the Supplementary Material for details) and only to a very limited degree in terms of their age (only FDP with 21 out of 1,257 ads). The main parameter for targeting was different geographical areas according to the data shared by Google. We grouped the 206 codes for different geographical areas for inclusive targeting by Länder, also including a code for Germany as a whole and unspecific areas. We find that most ads aimed for the inclusive targeting of Germany as a whole. More competitive battlegrounds for online advertising via Google services were Hamburg, Lower Saxony (Niedersachsen), and Northrhine-Westphalia (Nordrhein-Westfalen). We also find that the AfD and the SPD were aiming for different districts of Hamburg. The FDP and the SPD also had a focus on Lower Saxony and on Northrhine-Westphalia where the Greens were the third strongest contester. Volt strongly targeted specific cities that were grouped here as unspecific in the state-centred category, and so did the FDP. These two parties appeared to follow the most fine-grained campaign via Google services regarding geotargeting. Considering areas excluded from advertising as the counter-dimension of geotargeting, we find that this option is only considered in rare cases. The CDU systematically excluded Bavaria from its ads, which is in line with the agreement between the CDU and the CSU to not compete in the same states and then form a parliamentary group in the Bundestag. In addition, some parties explicitly excluded neighbouring German-speaking countries (especially CSU, excluding Austria and Switzerland). The AfD excluded certain areas in Berlin, which is in line with their expected voter potential in these areas (for more details, see the HTML file in the Supplementary Material). Volt also employed a specific strategy in this dimension, by excluding certain cities from certain content (unspecific city/unspecific state). Overall, however, excluding areas from content was less common than including areas (for more details see the Supplementary Material).

6. Discussion of Findings in Connection to the DSA

The findings above show that e-campaigning is widespread in Germany. The use of Google Ads fits the definition by Dommett et al. (2024) for DDC in so far as it uses data to effectively target audiences and optimize campaign interventions. This manifests in the use of targeting but also in the timing and display time of ads in line with specific campaign events such as TV debates, but also along the entire length of the campaign (Panagopoulos, 2011). Such data-driven strategic decisions allow parties to optimise campaign interventions for voter mobilisation and persuasion through (micro)targeting.

While we find all German political parties studied used Google Ads, it was most frequently used by the AfD. This is mainly in line with the findings of other studies: Right-wing parties use DDC more frequently than left-leaning parties (Gibson & Römmele, 2001; Kruschinski & Haller, 2017). It supports findings of previous studies indicating that populist radical right parties campaign extensively via the web (Engesser et al., 2017; Ernst et al., 2017). We additionally find support for the impression that "digital-native" parties (here: Volt and the AfD) show higher online activity. However, the SPD used Google Ads more than the CDU, who then used it much more than the remaining parties. These results appear to support the normalisation thesis (Gibson & Römmele, 2001) suggesting that established, powerful, and resource-rich political actors outperform their weaker competitors in DDC and thus reproduce existing power imbalances. Nevertheless, the high use of Google Ads by newer parties such as the AfD and Volt offers some support for the equalisation thesis, arguing that digital affordances help to overcome structural disadvantages inherent to the political landscape by more efficient resource allocation to target the "'right' segment of voters" (Votta et al., 2024), at least for "digital native parties."

Regarding targeting (inclusive or exclusive) criteria used by parties in Google Ads, our findings partly match the expectation of Votta et al. (2024): While for Google Ads location-based criteria are most frequently used, we find little use of socio-demographic criteria with no targeting regarding gender and only a very limited degree in terms of age. Thus, individuals were mainly targeted based on different geographical areas such as main battlegrounds and electoral strongholds (Stuckelberger & Koedam, 2022). This can partly be explained by the specific advertiser (paying client): In cases where local chapters of a party paid for the ad, geotargeting can be explained by the specific local interest of the advertiser. Some findings concern the special features of electoral campaigns in Germany: The clearest example of this is the CSU limiting its ads to Bavaria while the CDU excluded this state systematically from its ads. This does not come as a surprise. In contrast to Votta et al. (2024), we find that most ads have no targeting criteria.

Stuckelberger and Koedam (2022) suggest that ideology affects who is targeted and/or excluded by parties. Indeed, we find that the left-leaning parties such as Volt focused on urban populations. In contrast, the AfD excluded certain areas in Berlin, which is in line with their expected voter potential in these areas, but then targeted specific districts of Hamburg. Overall, however, we find that even when considering ideology, most targeting by parties was based on location rather than socio-demographic criteria via Google Ads.

However, e-campaigning and DDC are by no means uncontroversial. While online political advertising does come with benefits, unregulated political advertising is widely seen as creating dangers for democratic elections (e.g., Margetts, 2019; Persily, 2017). Especially after the 2018 Cambridge Analytica scandal—which exposed that the company had used the data of 87 million Facebook profiles, collected through a third-party app without users' consent, to influence voting intentions during the 2016 US presidential campaign in favour of Republican candidates—the importance of transparency regarding political advertising on online platforms has received considerable attention. At the core of the debate is microtargeting which "has the potential to fracture political discourse, reinforce echo chambers and increase political polarization" (Zuiderveen Borgesius et al., 2018). This raises the question of standards and regulations and their effectiveness in raising awareness and protecting citizens (Vliegenthart et al., 2024). For political actors, such as political parties or government bodies, the ethical standards for online advertising should be set higher. If we also consider the monopoly position of a few internet corporations, which control the political exchange and advertising of online political content (against payment) and thus have amassed unprecedented power in political competition (Zuiderveen Borgesius et al., 2018), it becomes clear that regulation must not only encompass the political advertisers but also the platforms themselves. The DSA aims to address some of these issues without limiting freedom of expression.

Google, under study here, aims to further expand its Ads Transparency Centre including expanding data access to researchers to provide more information about "how Google Search, YouTube, Google Maps, GooglePlay and Shopping work in practice" (Richardson & O'Connor, 2023). It will also improve its transparency reporting as required by article 39 DSA (European Parliament and Council Regulation of 19 October 2022, 2022) and analyse potential "risks of illegal content dissemination, or risks to fundamental rights, public health or civic discourse" (Richardson & O'Connor, 2023). In line with the DSA requirement that hosting services and online platforms must explain why illegal content was removed and give users the ability to appeal, Google already provides the option for YouTube creators to appeal video removals and restrictions (European Parliament and Council Regulation of 19 October 2022, 2022, Art. 50 DSA). Therefore, overall, the DSA has the potential to address some if not most of the challenges of the use of

e-campaigning by the parties outlined above. The first real large-scale practice test was the 2024 European parliamentary elections. For the German case, the developments surrounding the next federal elections in 2025 and several important elections in the German Länder Thuringia, Saxony, and Brandenburg in autumn 2024 provide significant observation points. Future comparative work should also consider further potentially relevant country and party attributes such as levels of democracy, overall party/national financial resources, size of party staff, level of regulations for campaigns, and data protection legislation.

7. Conclusion

In this article, we set out to (a) provide a general view on parties' digital campaign strategies, (b) discuss, based on the existing literature on e-campaigning, the party factors that potentially determine the different uses of Google Ads in elections, and (c) present the findings of our mainly descriptive analysis of Google Ads. Based on the theoretical discussion and analyses, we find that all German political parties represented in the federal parliament (and Volt) used Google Ads. The Ad Library documented the most frequent use by the AfD, followed by the FDP. The main client was the federal party organisation, with local chapters coming in second. Surprisingly, Google Ads were not used by the youth organisations of the parties even though it might appear more effective given that young voters are supposedly more online (Boulianne & Theocharis, 2020; Ohme, 2019). However, party youth organisations and their voters might simply have preferred other social media platforms to Google and YouTube, or relied on organic content. Whereas text-based ads were least used by most parties, it was notable that both the AfD and FDP heavily relied on images and videos. This might indicate the stronger personalisation of party politics in these two parties, with a greater focus on the lead candidates. Regarding length of ad display, we find that whereas the AfD preferred ads displayed for only a few days, the SPD, Greens, and the CDU opted mainly for ads displayed almost throughout the entire observation period. The FDP employed a mix of short-, medium-, and long-term ads, similar to Volt and, to a lesser degree, the Left party. Regarding timing, our analysis shows that the peak of new online ads being rolled out was 1 September 2021, mainly during the week and in connection with the televised lead candidate debates. Here the main potential government parties posted more before the debate and the main opposition parties just after. Lastly, we find that the parties considered in this study did not target individuals in terms of their gender and only to a very limited degree in terms of their age. Individuals were mainly targeted based on different geographical areas, such as main battlegrounds, concentration of key voters, and, unsurprisingly, the CSU limited its ads to Bavaria while the CDU excluded this state systematically from its ads.

It will be interesting to see how digital campaigning via Google changes for the upcoming European, sub-national, and national elections after the new regulations of the DSA become effective in 2024. Beyond the effects of new regulations on political online campaigning, three broader and recent developments require consideration in future research. First, how will the perceived decline in the quality of Google search results and issues with ad ranking impact its usage by parties and the effectiveness of microtargeting? Second, how will the increased use of generative AI, notably since the launch of ChatGPT in late 2022, impact search practices across all major platforms and consequently affect Google Ads and microtargeting? Finally, how will the uptake of new platforms, such as TikTok, disrupt established campaign strategies and their relevance? This field of research continues to develop/change at a rapid speed, just like its research objects.

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Data Availability

Original public Google data: https://adstransparency.google.com/political?topic=political&region=DE. Working files available via Gutenberg Open Science: https://doi.org/10.25358/openscience-10680

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ARTICLE

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Quantifying Data-Driven Campaigning Across Sponsors and Platforms

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Abstract

Although modern data-driven campaigning (DDC) is not entirely new, scholars have typically relied on reports and interviews of practitioners to understand its use. However, the advent of public ad libraries from Meta and Google provides an opportunity to measure the scope and variation in DDC practice in advertising across different types of sponsors and within sponsors across platforms. Using textual and audiovisual processing, we create a database of ads from the 2022 US elections. These data allow us to create an index that quantifies the extent of DDC at the level of the sponsor and platform. This index takes into account both the number of unique creatives placed and the similarity across those creatives. In addition, we explore the impact of sponsor resources, the office being sought, and the competitiveness of the race on the measure of DDC sophistication. Ultimately, our research establishes a measurement strategy for DDC that can be applied across ad sponsors, campaigns, parties, and even countries. Understanding the extent of DDC is vital for policy discussions surrounding the regulation of microtargeting and data privacy.

Keywords

data-driven campaigning; digital campaigning; election campaigns; political advertising

1. Introduction

For decades, campaigns have used data to make decisions about effective campaign practices, though the sophistication in data use has ramped up considerably in recent years. So while data-driven campaigning (DDC) is not new, academic studies of the phenomenon have typically relied on reports and interviews with practitioners in order to understand how it is practiced. Examples of this include Anstead's (2017) study of the 2015 general election campaign in the UK, Kreiss's (2016) work on the use of technology in campaigns in the US, and Kefford's (2021) book on such practices in Australia. As a result, scholars are starting to get a picture of how DDC is practiced, but the picture is an incomplete one. Most reports on DDC practices center on the most prominent elections in each country, ignoring regional and local campaigns, and most studies focus on a single country (the five-country study by Dommett, Kefford, and Kruschinski [2024] is one exception). Clearly, more research is needed to consider variation in DDC practice across countries, parties, candidates, and offices, but given that most research on the practice of DDC relies on in-depth interviews or participant observation, it may take a long time for such work to emerge.

What we propose attempts to rapidly widen the scope of contexts in which DDC is studied, relying on the Meta and Google ad libraries to create quantitative measures of DDC. Specifically, we focus on two measures—the number of unique creatives that were placed in each race and the similarity of the ad content—to create an overall indicator of the extent to which campaigns engage in DDC. We take advantage of such data from the 2022 US elections given the heavy spending on advertising in the US, the high professionalization of campaigns in the US (Farrell et al., 2001; Maarek, 2011), and the large number of campaigns occurring at the same time. That said, our approach could be used for any number of races in the large number of countries for which Meta and Google data are available.

We first establish wide variation in our sophistication measure across campaigns, and scores that make sense given what we know about those campaigns. We also show that the DDC sophistication measure is higher in Senate races than in House races and higher in more competitive races. Moreover, Democratic Party affiliation predicts greater DDC sophistication for Meta ads, and higher campaign resources are associated with greater DDC in Google data.

2. Defining DDC

Definitions of DDC and related concepts are not always spelled out directly in research in the area, but they tend to take two approaches. The first focuses on specific practices that are thought to be indicative of DDC, such as targeting and testing. Baldwin-Philippi (2017, p. 628) writes:

> Data-driven campaigning involves two main features: targeting, or deciding which messages go to what potential voters at what time during the campaign, and testing, or empirically measuring how well messages perform against one another and using that information to drive content production and further targeting.

Dommett, Barclay, and Gibson (2024), by contrast, offer a definition that focuses on whether "data is used to inform decision-making" regarding "voter communication, resource generation and/or internal organization" (p. 2). They make the reasonable argument that focusing on specific practices does not guarantee that data

were used in campaign decision-making. One could target messages, for instance, based on "rule of thumb" or based on "what we've always done" as opposed to utilizing data in the decision of how to target.

In spite of this drawback noted by Dommett, Barclay, and Gibson (2024), we take the Baldwin-Philippi (2017) approach, focusing on one particular instantiation of DDC: the tailoring of ad messages. Admittedly, while our approach gives up something in terms of understanding exactly how the data are used, it has the advantage of allowing an examination of DDC in multiple campaign contexts.

3. Studying DDC

There are multiple ways to study the practice of DDC, with each having advantages and disadvantages. The most common approach is interviews with campaign strategists and practitioners. Kreiss (2016), for example, conducted interviews with more than 50 staffers who had worked on digital technology in Democratic and Republican campaigns in the US. Kefford (2021) was even more ambitious in his study of how parties in Australia use campaign technologies, conducting over 150 interviews with both campaign managers and volunteers that stretched over several years. Anstead's (2017) research on DDC in the 2015 general election in the UK involved 31 interviews with political practitioners. Dobber et al. (2017) explored "political behavioral targeting" in the Netherlands, relying on eleven semi-structured interviews with Dutch campaign leaders involved in the 2017 national elections. A couple of studies of data campaigning in Canada also depended on interviews. For example, Montigny et al. (2019) looked at discourse surrounding the regulation of data-driven practices in Quebec using 45 semi-directed interviews. Munroe and Munroe (2018) took an in-depth look at how data are used and perceived in one constituency campaign in British Columbia through a dozen elite interviews with campaign managers, staff, and volunteers. Most ambitiously, Dommett, Kefford, and Kruschinski (2024) drew on 329 interviews with campaign and party operatives, pollsters, and data brokers for their five-country study of DDC.

Sometimes, these interviews are supplemented by participant observation. Kefford (2021) worked for both Labor and Green campaigns in Australia, and Munroe and Munroe (2018) relied on participant observation in addition to their interviews. Observational and archival data were also relied on in the Dommett, Kefford, and Kruschinski (2024) study, and another study used country experts to make comparisons across six countries (Kefford et al., 2023).

The advantage of such approaches is the ability to get an in-depth understanding of how campaigns use data to inform decision-making. The drawback is that interviews and participant observation require a lot of time to accomplish, making it more difficult to compare across multiple races, parties, types of office, localities, or countries.

A couple of studies have leveraged more quantitative measures. For instance, Vliegenthart et al. (2024) conducted a 25-country survey of people's perceptions of DDC, finding that people assign a range of acceptability to various practices, but this study does not focus on how DDC is practiced. In addition, Beraldo et al. (2021) traced Facebook political ad targeting patterns in the Dutch 2021 general elections by enrolling participants in a user audit program and collecting the political posts they were exposed to through a browser extension. This methodology promisingly combined data from surveyed political attitudes and the same individuals' online feeds, but the user audit deployment is costly and the insights that could be drawn are contingent on the selected sample of users.

Perhaps the best example of the use of quantitative measures to examine the practice of DDC is a study by Kruschinski and Bene (2022), which examined parties' online practices in European Union elections across 28 countries. They used several measures of Facebook activity by country, including the mean number of "organic" posts by party, the mean number of unique sponsored posts by party, the mean number of unique ads by party, and the number of duplicate versions of ads. They suggested that using many different versions of paid ads "is an indication for the use of more sophisticated digital marketing strategies, like using different targeting options on the same message or testing the messages with different audience segments" (Kruschinski & Bene, p. 61). For instance, the average number of creatives is over 6,800 in Germany and over 1,000 in the UK compared to 19 in Ireland and just 15 in Latvia. The inference, then, is that DDC was much more advanced in Germany and the UK than in most other European countries.

Our approach is similar to that of Kruschinski and Bene (2022) in that we utilize data on political advertising obtained from the Meta and Google ad libraries to create a quantitative indicator of DDC: the tailoring of political ads. But our research differs as well. First, we focus not just on the number of ad creatives produced but the similarity across those creatives as well. Second, our focus goes beyond the country level and the party level to consider the use of ad tailoring by specific campaigns.

4. Variations in DDC

Dommett, Kefford, and Kruschinski (2024) proposed a framework for studying DDC that recognizes variation across several levels, including the system level, the regulatory level, and the party level. System-level factors include the electoral system, the system of government (such as unitary vs. federal), the party system (how many parties), and the media system. Regulatory-level factors include regulations on parties, regulations on campaigns, data and privacy regulation, and regulations on media. Party-level variables include the financial resources of the party, the organizational structure of the party, the party's ideology, and elite and grass-roots attitudes toward campaigning. What is lacking in this model is variation across campaigns, something that is particularly pertinent to the study of DDC in the US and other countries that have candidate-centered, rather than party-centered, campaigns.

In this research, we ask two questions. First, how can we quantify the level of sophistication in DDC through online advertising data? Second, what factors explain variation in the sophistication of DDC?

To the first point, we need to be clear. Our measure of DDC sophistication is really a measure of the extent to which campaigns tailor ads to cater to specific audiences, which we believe is an important indicator of whether a campaign is utilizing practices at the most sophisticated end of DDC, such as targeting ads at specific groups of voters or ad testing. Indeed, tailoring ads by creating many different versions of a message seems pointless if they are not being targeted.

While we hope to make a methodological contribution in advancing a measure of DDC sophistication that can easily be applied across multiple campaigns, we also hope to make a more substantive contribution by explaining variation across campaigns in this measure. This investigation will also help establish the validity of our measure if those factors that we theorize predict DDC sophistication, in fact, do predict them.

Thus, in trying to explain variation across campaigns, we consider several factors. The first is the office (whether House or Senate). Because Senate constituencies (entire states) are typically larger than House districts, they require more resources to reach out to a larger number of voters. And tailoring ads to specific parts of the electorate becomes more efficient when larger numbers of people fit that demographic. As such, we would expect to see more tailoring of ads in larger Senate constituencies:

H1: Senate races should exhibit higher DDC sophistication than House races.

The second factor we consider is the candidate's party, whether Democratic or Republican. As Kreiss (2016) has documented, the parties do not invest equally in the use of digital technologies. While this technological advantage can vary over time, most accounts suggest that Democrats are more advanced in the use of digital campaign technologies (Baldwin-Philippi, 2015; Kreiss & Jasinski, 2016):

H2: Democratic sponsors should exhibit higher DDC sophistication than Republican sponsors.

Third, we consider the competitiveness of particular races, as more competitive races may raise the stakes and drive campaigns to engage in more data-intensive practices:

H3: More competitive races should exhibit higher DDC sophistication.

Finally, we consider the resources available to a campaign. Greater financial resources, as Dommett, Kefford, and Kruschinski (2024) point out, can provide access to more knowledgeable staff and can help purchase data and technology—both key for effective DDC:

H4: More well-financed races should exhibit higher DDC sophistication.

We also consider the type of sponsor: a candidate, party, or interest group. We have no strong expectation that sponsorship will affect DDC sophistication, but given that groups and parties are generally active in multiple campaigns—and candidates are active in a single one—we believe it wise to control for sponsorship. Finally, we also control for the ad's mode of communication, whether image, text, or video since the modality can affect the number of features that could be tailored.

5. Data

We collected political advertising data in text, image, and video formats from the Meta Ad library and the Google Transparency Report. Our analysis focuses on election ads in the US during the general election phase of the 2022 election cycle, but our approach to quantifying DDC is applicable to any country for which Meta and Google publish digital advertising data.

The ad libraries of Google and Meta make available the metadata of each ad placed on Google Search, Google Display Network, YouTube, Gmail, Facebook, and Instagram. For text ads, these include the spending range, dates being run, advertiser or page names, impressions, demographic information of audiences reached, title, and text. However, obtaining the content of audiovisual ads required more processing. We downloaded political ads in raw images and videos and extracted creative content from the original

media files. Specifically, we obtained transcripts of the audio from video advertising through the Google Cloud Speech-to-Text API (https://cloud.google.com/speech-to-text) and detected text in images and videos through the Amazon Rekognition service (https://aws.amazon.com/rekognition).

Covering the 2022 US election, our dataset captures election ads that ran during the general election period. Within the universe of political ads placed on Google and Meta's platforms during this period, we focus on federal election activity. An ad is identified as a federal election ad if (a) it mentioned or featured at least one federal candidate or sitting senator or (b) it was sponsored by a federal candidate or national party.

6. Method

We consider two indicators of ad tailoring, a practice often employed in DDC. The first is the number of unique creatives produced by a campaign, and the second is the level of content similarity across a sponsor's unique creatives.

6.1. Unique Creatives

A greater number of unique creatives implies that the campaign was more likely to be (a) tailoring advertisements to specific audiences for purposes of targeting and/or (b) testing variations of ads to assess their effectiveness. Thus, we expect the number of unique creatives to be positively associated with a more sophisticated use of DDC.

We define a unique creative as a unique combination of textual and audiovisual elements. A unique creative is different from other unique creatives in at least one of the available creative elements we extracted from ads, including creative body, title, link caption, creative description, audio transcription from videos, overlaid text to audiovisual media, and other non-textual audiovisual elements/imagery. All forms of textual information were obtained from the public ad libraries or extracted using audiovisual recognition tools, as was previously described. We represented the unique audiovisual information in image and video ads using the SHA-256 checksum value of the media files. Checksum is a cryptographic hash code computed from the bytes of a file that serves as the "fingerprint" of the file. Minimal variations in media content, be they textual or audiovisual, would generate different checksum values. Therefore, if two creatives share the same creative body, overlaid text, video transcription, and other textual elements but differ in checksum values, that implies they vary in audiovisual elements.

We quantify unique creatives by concatenating variables representing the textual and audiovisual elements listed above and dropping the exact duplicates. This results in 153,952 unique creatives out of 377,721 ads on Meta's platforms and 28,683 unique creatives out of 84,225 ads on Google's platforms. We then count the number of unique creatives of each federal race and sponsor.

6.2. Text Similarity

The second indicator of DDC that we consider is content similarity across a sponsor's unique creatives. We expect that a sophisticated data-driven campaign would vary its messages depending on the audience and therefore present greater creative variations. To capture this variation, we computed pair-wise similarity

scores between all pairs of unique creatives at the sponsor level using a state-of-the-art semantic textual similarity measure (Reimers & Gurevych, 2019). We concatenated the identifying fields (creative body, title, caption, video transcription, optical character recognition text, checksum, etc.) and encoded them using a pre-trained sentence transformer model (Reimers & Gurevych, 2019). The pre-trained model used is "all-MiniLM-L6-v2" (https://www.sbert.net/index.html). The resulting corpus embeddings represent the creative content in each ad in the vector spaces and allow us to compute the textual similarity, represented by cosine similarity scores, between any given pairs of creatives. Unique creatives are represented by the embeddings of all the textual fields and checksum values described earlier. Each sponsor should have *N choose* 2 pairs of unique creatives. The similarity score is the cosine similarity between the vectors representing a pair of unique creatives and has a range of [0, 1]. A score of 0 indicates the least similar, and 1 the most similar. A pair of exact duplicates should have a similarity score of 1.

Because ads in different media formats (text, image, or video) can vary significantly in messaging and visual effects, we aggregated unique creatives by both sponsor and media type and calculated average pairwise textual similarity scores at the sponsor and media level.

We expect that a lower average textual similarity score for a sponsor implies higher creative variation and thus more tailoring of messages. That is, the campaign may be creating an ad to address the concerns of parents of young children, another ad directed at voters who care about the environment, and a third ad that seeks the votes of senior citizens on Medicare. By contrast, higher similarity scores suggest that a campaign, perhaps from lacking staff resources, is reusing content in multiple ads. The caveat here, of course, is that a campaign that is doing a lot of ad testing—which one might associate with DDC—might produce more ads that are high in similarity. Ultimately, we rely on some real-world examples of campaigns known for their use of DDC to validate the interpretation of similarity scores, which we show in the results section.

6.3. Measure of DDC Sophistication

Taking into account the information given by both unique creatives and content similarity, we formulate an index to measure the sophistication of a campaign's tailoring of messages. A campaign sponsor's sophistication index SI is given by:

$$SI = x' \times \left(1 - \overline{y}_{i,j}\right)$$

Here, x' represents the sponsor's normalized number of unique creatives, rescaled to a value between 0 and 1, and $\overline{y}_{i,j}$ represents the average pairwise similarity between these unique creatives. The number of unique creatives x are normalized using min-max normalization, which can be expressed as:

$$x' = \frac{x - \min(X)}{\max(X) - \min(X)}$$

Here, x is the original value of a sponsor's number of unique creatives and $\min(X)$ and $\max(X)$ represent the minimum and maximum of the entire sample. The normalized value of x, that is x', has a range of [0, 1]. Sponsors with the lowest number of unique creatives have a value of 0, and sponsors with the largest number of unique creatives have a value of 1.

Similarly, $y_{i,j}$ is the pairwise similarity between a sponsor's unique creatives i, j for all possible pairs of unique creatives, and $\overline{y}_{i,j}$ is the mean of $y_{i,j}$. Because we expect lower average similarity to indicate more sophistication, the second factor of the index subtracts $\overline{y}_{i,j}$ from 1. $(1 - \overline{y}_{i,j})$ also has a range of [0, 1].

Therefore, the sophistication index SI also has a range of [0, 1]. The higher the value, the more sophisticated the campaign's tailoring of messages—again, an indicator of DDC. We calculated the sophistication index for each race, sponsor, and media format.

6.4. Office Being Sought and Race Competitiveness

After identifying the candidate sponsors for digital ads, we created indicators of whether a federal candidate campaigned for a House or Senate seat in the 2022 general election based on Federal Election Commission (FEC) data.

Furthermore, we measured race competitiveness using data from the final Cook Political Report predictions (Wasserman, 2022). Races were placed on a four-point scale from the least to the most competitive (1 = *safe Democratic/Republican*, 2 = *Democratic/Republican favored*, 3 = *lean Democratic/Republican*, 4 = *too close to call*).

6.5. Type of Campaign Sponsor

Ad sponsors included candidates' campaigns, political parties (e.g., National Republican Congressional Committee, Iowa Democratic Party), and other political and business groups (e.g., super political action committees [PACs], nonprofit organizations). Using data from OpenSecrets (a non-profit that tracks spending in American elections) and the FEC, we attempted to match advertising sponsors to known federal spenders, creating indicators for whether the spender was a campaign, party, or group. The latter category includes groups we identify with the help of OpenSecrets and other spenders who are not candidates and not parties but for whom we have no further information, either in the FEC data or from OpenSecrets.

6.6. Party Affiliation

Our indicators of whether an ad sponsor favored a Democratic or Republican candidate were optimized using a combination of FEC and OpenSecrets sourced data, manual coding, and sponsor-level party classifiers. For candidate sponsors, we obtained their party affiliation from the FEC data. For party and group sponsors, we manually coded their party affiliation based on the ad sponsor names (e.g., New Jersey Democrats for Universal Healthcare) and disclaimers, cross-checked with OpenSecrets data. We used the FEC-provided and manually coded party affiliation for federal spenders known to the FEC and OpenSecrets. For digital ads sponsored by organizations for which we do not have manually coded data, which amounts to 23% of the entities on Meta and 22% on Google, we relied on inferences from our sponsor-level party classifiers. The classifiers took vectorized textual fields of ads (including sponsor and page names) as features and trained with a random forest model. Validated by our manually compiled and coded party affiliation, the party classifiers achieved an overall accuracy of 85.7% for sponsors in the Meta dataset and 82.1% for those in the Google dataset.

6.7. Campaign Resources

We used sponsors' political ad spending on television, obtained from the Wesleyan Media Project, as a measure of campaign resources. The non-partisan Wesleyan Media Project provides information on political ad spending in the US based on data from an ad-tracking firm. Expenditures on traditional media, as opposed to digital ad spending, were used to avoid endogeneity since FEC reporting information would include resources used on digital advertising, and campaign finance reports are inconsistent in how they describe and report spending on advertising in general. For this reason, we draw on measures of spending on television as a proxy for the resources at any given advertiser's disposal by utilizing Wesleyan Media Project data from Kantar's Campaign Media Analysis Group. The Campaign Media Analysis Group provides estimates at the ad-level of the cost of each television ad airing based on market, station, daypart, and program information. We then merged information on total TV ad spending with our digital data. Because not all sponsors who spent on digital platforms spent on television, we limited our analysis to the 333 sponsors on Meta platforms and 368 advertisers on Google platforms who also spent on TV advertising in the model that incorporated this variable.

7. Results

7.1. Descriptive Results

We calculated the number of unique creatives for each sponsor using the method described in the previous section. The distribution of the number of unique creatives per sponsor is right-skewed due to a long tail of outside group sponsors who placed a very small number of unique creatives (see Figure 1a and 1c). The average number of creatives per sponsor was 13 on Meta and 13 on Google. However, several sponsors had several thousand unique creatives. Leading sponsors by the number of unique creatives on Meta were super PACs and Senate candidates. Sponsors with the most unique creatives on Meta include Americans for Prosperity Action (759 creatives), Colorado Senator Michael Bennet (758), the Congressional Leadership Fund (455), Georgia Senator Raphael Warnock (446), Ohio Senate candidate Tim Ryan (412), and House Majority PAC (388). Google sponsors with the most unique creatives were the Congressional Leadership Fund (720), the Democratic Congressional Campaign Committee (205), House Majority PAC (204), US House candidate Mary Peltola (190), and Colorado Senator Michael Bennet (168).

We calculated the average pairwise similarity at the sponsor-media level. The average pairwise similarity score centers around 0.80 for Meta and 0.65 for Google. Scores for Meta are left-skewed, while scores for Google are approximately normally distributed across much of the similarity scale except for a spike towards the most similar end (see Figure 1b and 1d). This bucket mostly consists of sponsors who placed a small number of highly similar unique creatives.

We examined some real-world examples of campaigns known for their use of DDC to evaluate the meaning of the average text similarity measure. For example, Georgia Senator Raphael Warnock is widely acknowledged to have run a sophisticated re-election campaign in a focal race in 2022, managed by a rising political strategist in the Democratic Party, Quentin Fulks. His campaign raised over $150 million (Giorno, 2022) and won a tight re-election race. The average pairwise similarity score of unique creatives in his Meta campaigns is lower (at 0.70 for video ads, 0.71 for image ads) than the sample median (0.80 for video ads, 0.80 for image ads).

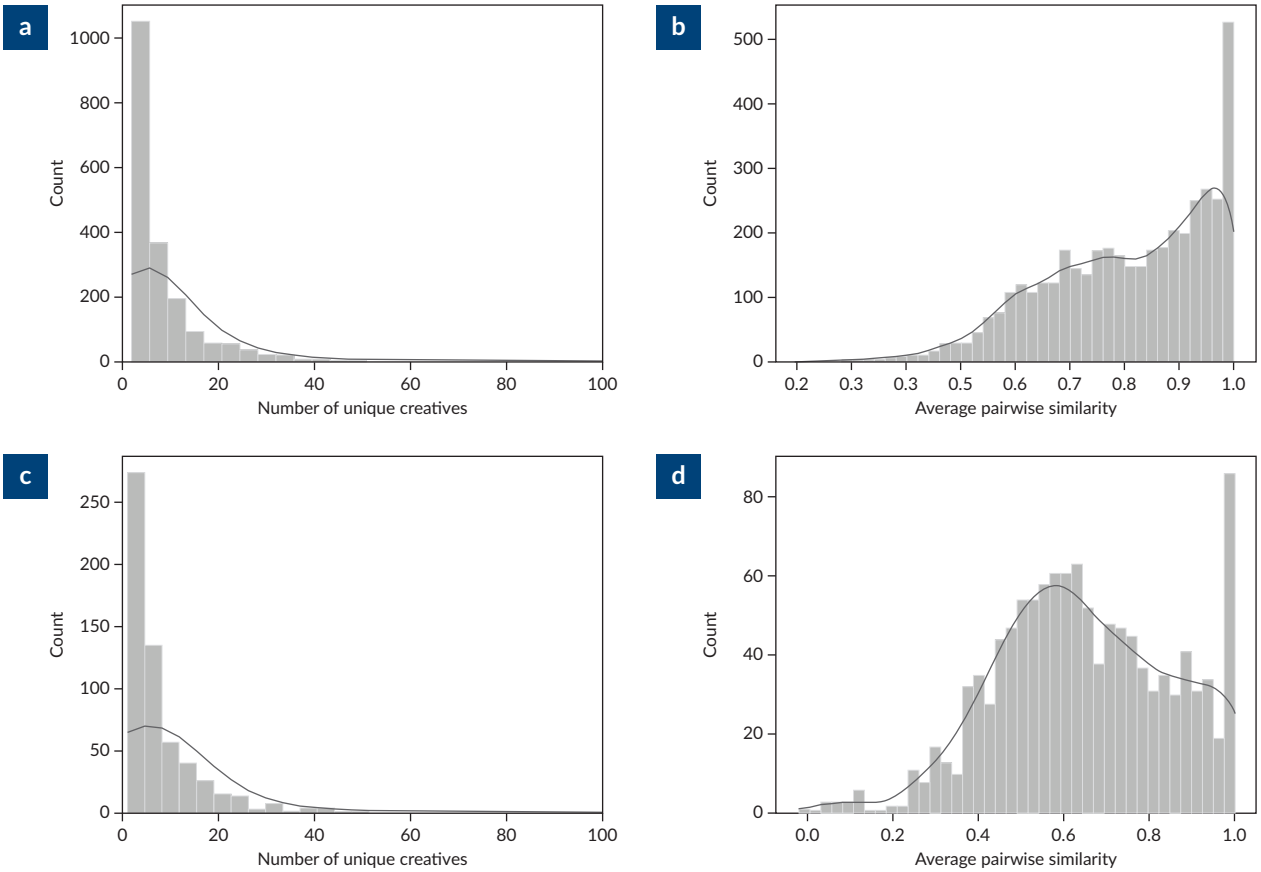

Figure 1. Distribution of unique creatives and ad similarity on Meta and Google: The number of unique creatives at the sponsor level for Meta (a) and Google (c); and distribution of average pairwise similarity at the race–sponsor–media level for Meta (b) and Google (d). Note: To illustrate the distribution of unique creatives on Meta (a) and Google (c), we limited the range of the x-axis to 100 due to the right-skewness of the distributions.

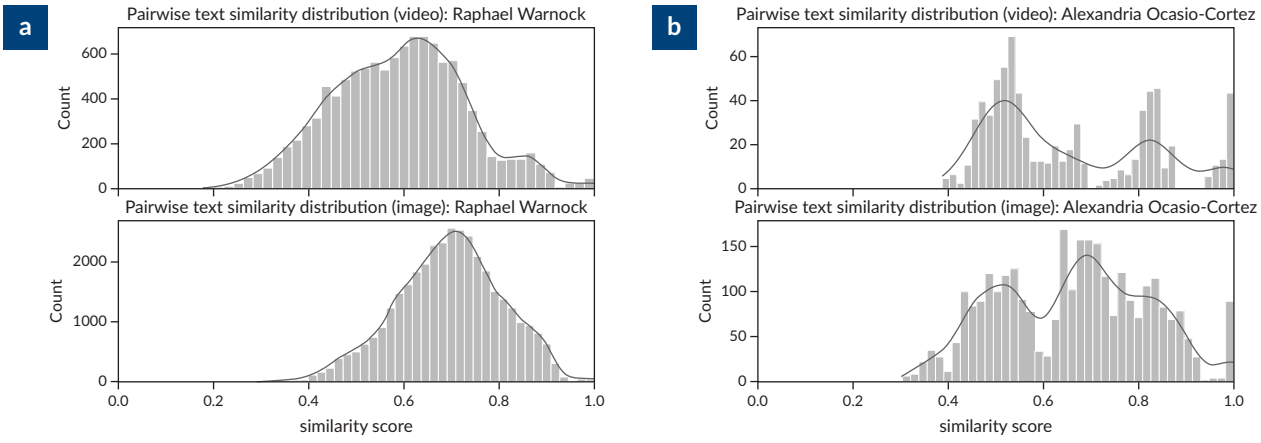

Figure 2. Distribution of pairwise content similarity of two federal candidates' digital campaigns on Meta where (a) refers to Senator Raphael Warnock and (b) to Representative Alexandria Ocasio-Cortez.

Pairwise similarity of Warnock ads has a unimodal distribution that spreads widely across the similarity scale, indicating abundant variation in those creatives (Figure 2a).

Another politician known as a sophisticated digital campaigner is New York's 14th District Representative Alexandria Ocasio-Cortez (Freedlander, 2021). Her campaign on Meta displays a multimodal distribution of pairwise similarity (see Figure 2b). Although the average similarity is lower than the sample median, there exist clusters of highly similar creatives (near-duplicates), representing minor variations around the same messages.

Therefore, average text similarity adds information but is not a sufficient indicator in itself of the use of tailoring ads. Our sophistication index takes into consideration both the number of unique creatives and average text similarity, and the top campaigns in this index align with well-funded, sophisticated, or creative campaigns known in the real world (see Tables 1 and 2). These include candidates running in highly competitive US Senate races, such as Mark Kelly in Arizona, Tim Ryan in Ohio, Mandela Barnes in Wisconsin, and John Fetterman in Pennsylvania. All of these candidates were able to raise multiple millions of dollars as well. While Senate candidates dominate the lists, many House candidates on the list are ones who ran in competitive races, such as Jeff Jackson in North Carolina and Jay Chen and Mike Garcia, both in California.

Table 1. DDC sophistication by campaign on Meta (top campaigns).

Sponsor (race)	Sophistication index	Media type	Unique creatives	Average text similarity
Raphael Warnock (Senate–GA)	0.305	Image	273	0.695
Michael Bennet (Senate–CO)	0.237	Image	239	0.729
Raphael Warnock (Senate–GA)	0.226	Video	152	0.591
Jeff Jackson (NC–14th District)	0.195	Image	166	0.679
Mark Kelly (Senate–AZ)	0.169	Image	123	0.622
Adam Schiff (CA–30th District)	0.166	Image	148	0.691
Tim Ryan (Senate–OH)	0.165	Video	112	0.592
Jay Chen (CA–45th District)	0.143	Image	94	0.580
Marco Rubio (Senate–FL)	0.135	Image	118	0.686
Mark Kelly (Senate–AZ)	0.133	Video	85	0.567
Jake LaTurner (KS–2nd District)	0.131	Image	68	0.462
Michael Bennet (Senate–CO)	0.124	Video	113	0.697
Mandela Barnes (Senate–WI)	0.123	Image	118	0.713
Elise Stefanik (NY–21st District)	0.120	Image	106	0.687
Mike Garcia (CA–27th District)	0.115	Image	117	0.729
John Fetterman (Senate–PA)	0.112	Video	74	0.579
Katie Porter (CA–47th District)	0.112	Image	107	0.711
Kim Schrier (WA–8th District)	0.108	Image	156	0.809
Catherine Cortez-Masto (Senate–NV)	0.106	Image	84	0.650
Christian Castelli (NC–6th District)	0.104	Image	84	0.657

Table 2. DDC sophistication by campaign on Google (top campaigns).

Sponsor (race)	Sophistication index	Media type	Unique creatives	Average text similarity
Raphael Warnock (Senate–GA)	0.420	Video	98	0.397
Mary Peltola (AK–1st District)	0.387	Image	140	0.613
Mark Kelly (Senate–AZ)	0.359	Video	94	0.464
Kevin Porter (FL–11th District)	0.294	Video	65	0.362
Maggie Hasan (Senate–NH)	0.209	Video	57	0.481
Michael Bennet (Senate–CO)	0.208	Video	55	0.463
Catherine Cortez Masto (Senate–NV)	0.201	Video	54	0.472
Marco Rubio (Senate–FL)	0.170	Text	41	0.409
Mary Peltola (AK–1st District)	0.158	Video	50	0.550
Mark Kelly (Senate–AZ)	0.155	Text	35	0.364
Catherine Cortez Masto (Senate–NV)	0.153	Text	32	0.315
Elise Stefanik (NY–21st District)	0.146	Image	44	0.528
Mike Garcia (CA–27th District)	0.142	Text	30	0.318
Herschel Walker (Senate–GA)	0.138	Text	49	0.594
Mark Robertson (NV–1st District)	0.135	Image	62	0.693
Josh Harder (CA–9th District)	0.134	Video	39	0.511
Katie Porter (CA–47th District)	0.134	Video	36	0.469
John Fetterman (Senate–PA)	0.132	Video	39	0.517
Danny O'Connor (OH–12th District)	0.125	Video	26	0.303

7.2. Regression Results

We estimated a model predicting the DDC sophistication index, which combines both the number of unique creatives and the similarity of creatives. We first report in Figure 3 analyses that examine only candidate sponsors on Meta platforms. The first model considers all candidates, while the second model, because it includes a measure of campaign resources that is based on television ad spending, is restricted to only those candidates who aired television ads.

We found first that Senate candidates are more sophisticated in their use of data campaigning than House candidates, consistent with H1. This supports our expectation given that Senate campaigns are typically better financed, which gives them the resources needed to tailor ads, and have larger constituencies than House candidates, which means producing unique creatives for segments of the electorate is more worthwhile.

Model estimates also show that Democratic campaigns engage in more sophisticated data campaigning than Republican campaigns, a finding that supports H2. This is consistent with Kreiss' (2016) observation that Democrats, at times, have invested more in digital technologies than have Republicans. Democrats also tend to have more support from tech elites (Broockman & Malhotra, 2017; Miles, 2002), including technology support for political campaigning (see for example Nix, 2024). Third, we found that more competitive races are associated with greater tailoring, consistent with H3. This makes sense given that the stakes are higher in more competitive races. Investment in DDC practices is not necessary if one is sure to win or sure to lose.

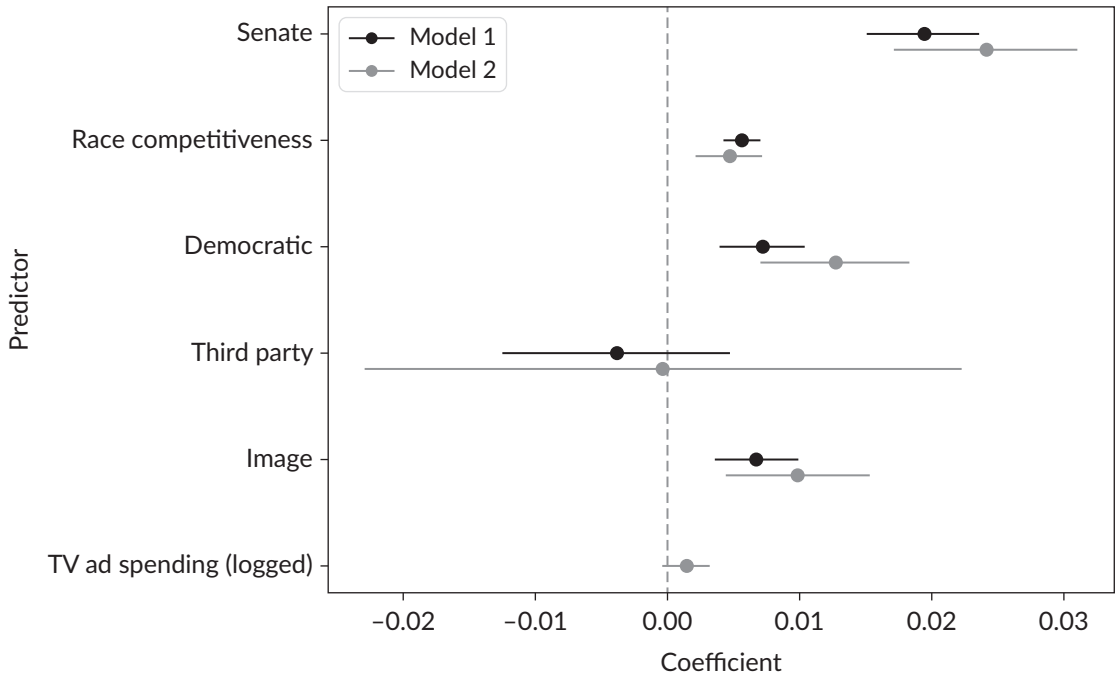

Figure 3. OLS regression estimates predicting campaign sophistication on Meta platforms (federal candidates). Notes: Error bars represent 95% confidence intervals; model 2 only analyzed the subset of candidates who invested in TV ads; full regression table can be found in Table 1 of the Supplementary File.

Our second model in Figure 3 tests the influence of campaign resources, finding that greater resources (as measured by TV ad spending) are positively associated with the use of ad tailoring. This finding is consistent with H4.

Next, we expand the analysis beyond candidates to consider groups, parties, and other sponsors on Meta as well. The unit of analysis here is the sponsor–race. Our findings, reported in Figure 4, are consistent with the analysis that included only candidates: Senate races see higher sophistication in the use of campaign data for tailoring, as do more competitive races, and Democratic sponsorship also predicts higher sophistication. Greater resources are associated with greater sophistication ($p < 0.10$), as model 2 reveals. This prompts the question of whether Meta provides a more equalizing campaigning platform and moderates the resource imbalances between well and poorly-funded candidates, as prior research has suggested (Fowler et al., 2021). Interestingly, we also find that parties and groups are less likely than candidates to engage in sophisticated ad tailoring, which makes sense given that groups and parties often must pay attention to multiple races while candidates are focused on a single one.

We next turn to the analysis of the Google data, starting with candidate-sponsored ads. Models 1 and 2 estimates (Figure 5) show that Senate races are associated with greater DDC sophistication than House races, consistent with H1. The first model also lends support to H2, as Democratic sponsors do more tailoring than Republican sponsors, though this relationship is only statistically significant at the 0.1 level in model 2, which has a smaller sample size due to the elimination of sponsors who did not advertise on television. Third, we find that greater competitiveness is associated with greater DDC sophistication, consistent with H3. Moreover, we find support for H4 in model 2, which shows that greater campaign resources positively predict greater ad tailoring on Google's platforms.

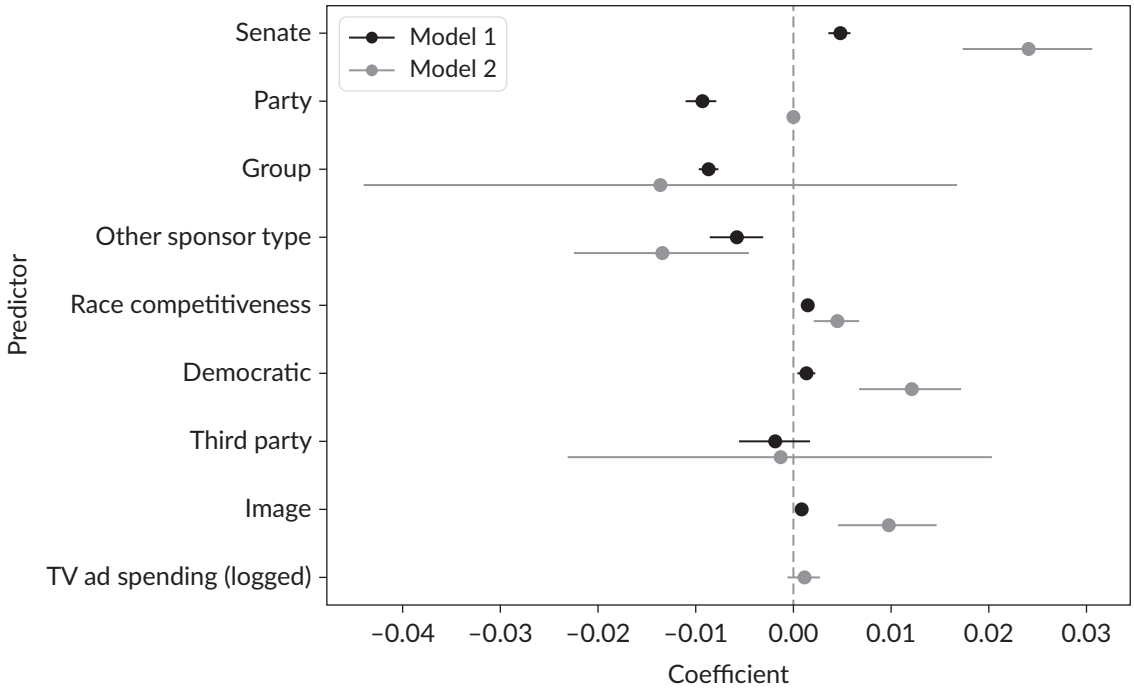

Figure 4. OLS estimates predicting campaign sophistication on Meta platforms (all House and Senate race sponsors). Notes: Error bars are 95% confidence intervals; model 2 only analyzed the subset of sponsors who invested in TV ads; ads placed by non-candidate sponsors such as national parties and groups were included separately for each race where they sponsored ads; "Other sponsor type" includes government offices and coordinated efforts between a group and campaign or party; full regression table can be found in Table 2 of the Supplementary File.

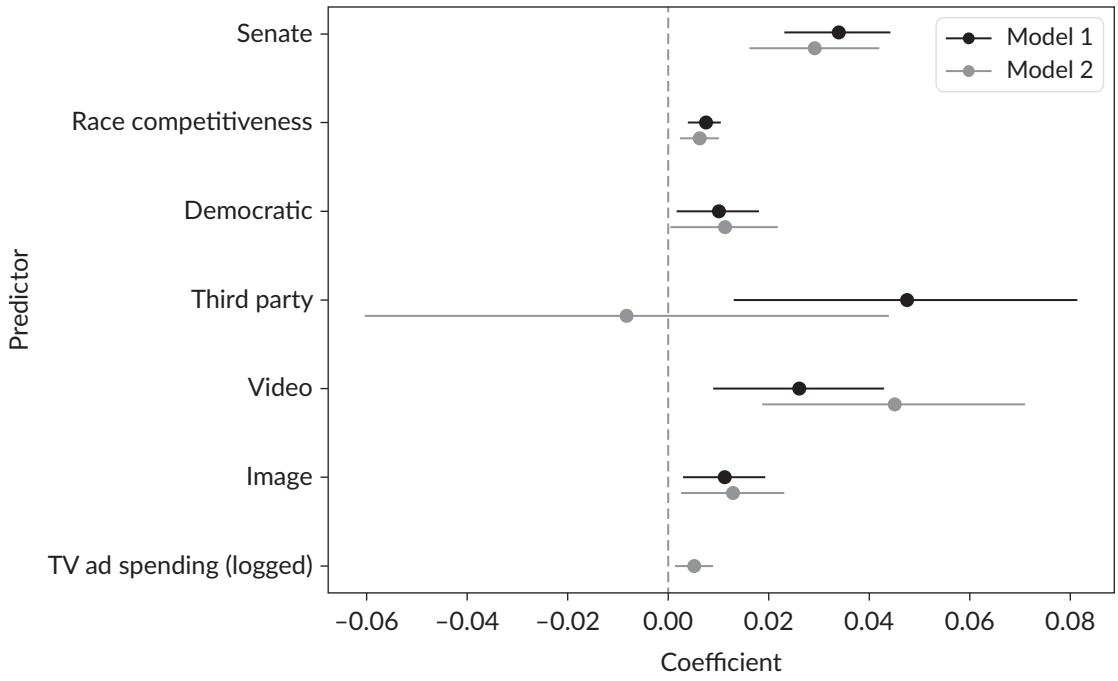

Figure 5. OLS estimates predicting campaign sophistication on Google platforms (candidates). Notes: Error bars represent 95% confidence intervals; model 2 only analyzed the subset of candidates who invested in TV ads; full regression table can be found in Table 3 of the Supplementary File.

Finally, the estimates in Figure 6 come from a model that examines all sponsors who placed ads on Google in US House and Senate races. Our story remains fairly consistent. Senate races feature more ad tailoring, and greater competitiveness is associated with more tailoring as well. Greater resources are associated with greater tailoring (model 2), and Democratic sponsors are more likely to tailor ads than Republican sponsors.

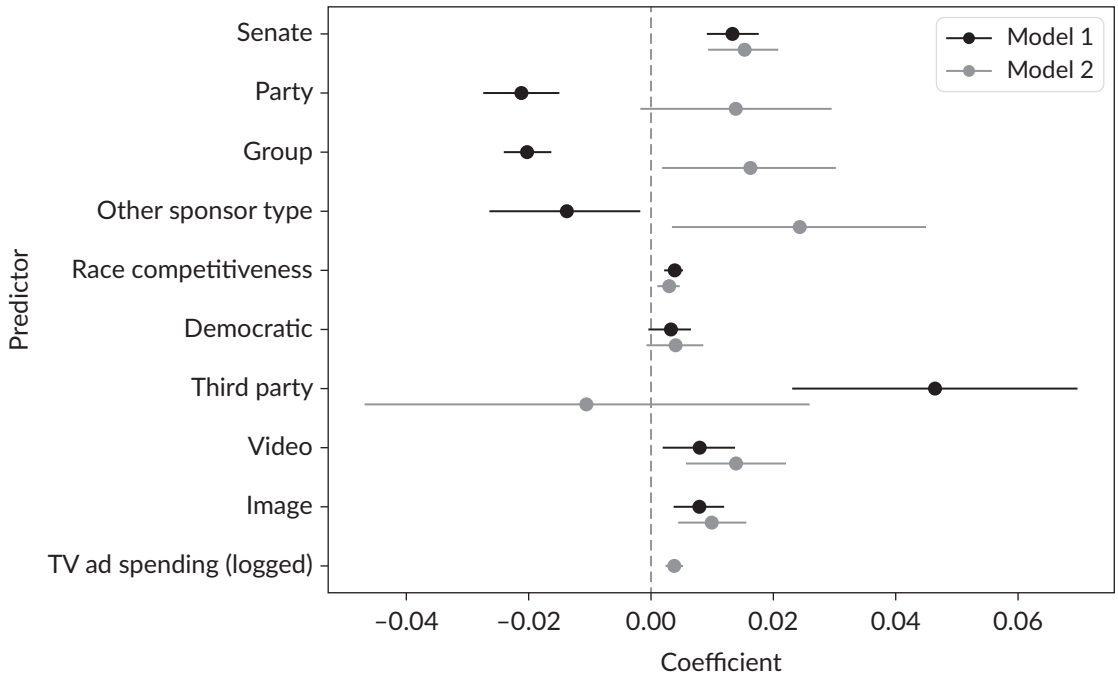

Figure 6. OLS regression estimates predicting campaign sophistication on Google platforms (all sponsors of Senate and House races). Notes: Error bars represent 95% confidence intervals; model 2 only analyzed the subset of candidates who invested in TV ads; ads placed by non-campaign sponsors such as national parties and groups were included separately for each race where they sponsored ads; "Other sponsor type" includes government offices and coordinated efforts between a group and campaign or party; full regression table can be found in Table 4 of the Supplementary File.

8. Conclusion

DDC is often studied qualitatively. Thus, studies using interviews or participant observation provide a deep understanding of how campaigns use data to make decisions, but such studies also necessarily tend to focus on a small number of cases. Our approach, which relies on publicly available data from platforms' digital ad libraries, offers a relatively simple way to study variation in ad tailoring, a key practice associated with DDC, across ad sponsors, races, parties, and even across countries. Our measure of DDC relies on the number of unique ad creatives employed by each sponsor, following the lead of Kruschinski and Bene (2022), in addition to the degree of similarity across those creatives.

Importantly, we find that tailoring of ads is more likely in Senate than House races, reflecting, we believe, both (a) the greater need to use a more data-driven approach in a larger, more heterogenous electoral district and (b) the greater practicality of making content for particular segments of the electorate when those segments are larger. We also find, in most cases, greater tailoring among Democrats and those backing Democrats, and we find greater tailoring when the race is more competitive. This suggests that when the stakes are higher—even when controlling for campaign resources—tailoring of ads is more likely. In addition, we found that having

greater campaign resources predicts greater tailoring of ads. This is consistent with the conclusions of others who find an important role for campaign resources in using DDC (e.g., Dommett, Kefford, & Kruschinski, 2024; Ridout, 2024).

Obviously, these findings apply to a singular context—US Senate and House races—but one key contribution here is that our measure of ad tailoring, which we use as an indicator of DDC, could easily be generated using ad data from the dozens of countries found in the Meta and Google ad libraries, facilitating cross-campaign, cross-party, and cross-national research. This work can also complement the rich qualitative approach that is often the focus of DDC research.

The development of our sophistication index is an initial effort to quantify digital ad tailoring across larger samples, but it is not perfect. It only takes into account the degree of within-campaign variation in creative content. It is limited in characterizing campaign sophistication with respect to message quality, especially evaluated in relation to its target audience. The creative content we extracted from image, video, and text ads serves great potential for developing measures of campaign sophistication in relation to message effectiveness. For example, one could evaluate the connections between issue framing in the ads and the geographic locations and demographic groups being targeted. Investigation of the strategic use of visual communication in audiovisual ads will also enrich the evaluations of campaign sophistication. Social media platforms arguably engage in more personalized and de-professionalized political campaigning (Enli, 2017; Enli & Skogerbø, 2013), and audiovisual media is a productive vessel for personalized messages. Our regression results suggest greater ad tailoring for image and video media compared to text ads. This motivates future content analysis that looks at the stylistic choices, emotional cues, and patterns of candidate and opponent appearances in image and video ads placed on social media platforms.

It is important to understand how commonly campaigns use a more sophisticated variant of DDC and the contexts in which they do so. An understanding of this reality should inform any proposal to regulate the use of data in campaigns, such as limits on microtargeting and rules for data privacy. Knowing the prevalence of ad tailoring might compel regulators to consider additional rules for digital ad platforms, such as transparency requirements on ad targeting or within-ad disclaimer rules for ads targeted to certain constituencies. At the moment in the US, regulations on digital ads are very limited. Knowing more about how campaigns employ DDC for digital ad platforms might facilitate a conversation among policy-makers about needed rules to give citizens a clearer understanding of how election advertisers are reaching different types of voters.

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Conflict of Interests

The authors declare no conflict of interest.

Data Availability

Data that support the findings of this study are stored on figshare and publicly available upon user registration (https://www.creativewmp.com/data-access). Code for data analysis associated with the current submission is available at https://github.com/Wesleyan-Media-Project/quantifying-ddc-paper/tree/main

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

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ARTICLE

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Data-Driven Campaigning in Data-Dense Small Multiparty Systems: A Party-Level Analysis

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Abstract

This study examines data-driven campaign (DDC) practices in Sweden. We explore the extent of data-driven practices adopted in Swedish political campaigns, and parties' motivations to adopt them. Since this is a comparison of domestic parties, we test the importance of four party-level factors—resources, structure, attitudes toward data use, and ideology—using extensive interviews with key campaign managers in Sweden during the 2022 election year. Our results show that the differences among the eight parties studied are rather small, and that systemic factors are more important than party variables to explain the adoption of data-driven approaches. Zooming in on these finer differences we distinguish between top DDC adopters (Social Democrats, Center, and Conservatives) and a lower tier with lower levels of DDC implementation. To explain the differences between the two tiers, we find that economic resources are important, with richer parties being more advanced in DDC use. Party structure, attitudes to data, and ideology do not affect the likelihood of a Swedish party using data analytics in their strategic decision-making. Instead, we suggest party type (catch-all vs. niche) is a potentially more useful party-level factor in explaining variation.

Keywords

data analytics; democracy; election campaigns; political communication; political parties

1. Introduction

Big data is the fuel powering the new economy ("The world's most valuable resource," 2017). Big data may also power politics. Striving to improve their electoral performance, political parties have increasingly

deployed data to their service. Using the availability of new technologies that quickly process large quantities of information about their electorate, parties can send directed and personalized messages to voters. In the US, both Democrats and Republicans have constructed over time large datasets about their own registered partisans. They have also purchased commercial data from social media and credit card companies to create digital "typical" voters (Kreiss, 2016; Stromer-Galley, 2019). In Canada, Australia, and even the more data-shy Germany (Kefford et al., 2023), parties have started to gather information more systematically about voters, in the same vein as in the US. In general, research in the European context is not extensive. Based on the analyses so far, European countries have been found to be less extensive and sophisticated in their campaigns compared to the US because of systemic, regulatory, or party traits (Dobber et al., 2017; Dommett et al., 2024; Kruschinski & Haller, 2017).

In this article, we want to explore the extent of data-driven practices adopted in Swedish political campaigns, and parties' motivations to adopt them. Sweden is a good case study for data-driven campaigning (DDC) for two reasons. Firstly, given its high level of digitalization, Sweden could be expected to adopt DDC. Secondly, the similarity in regulations between European countries, coupled with variations in outcomes, warrants a focus on party-level factors. By engaging with the Swedish case, we find that, indeed, all Swedish parties adopt DDC practices, and that the small differences between them are a matter of resource inequality rather than ideology, structure, or attitudes toward data.

2. Data's Place in Political Campaigns

DDC has been defined as practices that access and analyze voter and/or campaign data to generate insights into the campaign's target groups and/or to optimize campaign interventions. The mere use of data is by this definition therefore not enough to be DDC. To be considered data-driven, campaigns must use the data to inform decision-making in either a formative and/or evaluative capacity. DDC may occur in the form of voter communication, resource generation, policy development, and/or internal organization (Dommett et al., 2023, p. 2).

Here, we see campaigns as data-driven if (a) they systematically collect or statistically model large amounts of information that can be then (b) used to make decisions about the campaign, which potentially influence policy formulations or the internal processes and the organizational structures in the party.

While most research on data in campaigns has used the US as the empirical locus, there is work done in Europe, albeit mainly focused on large European countries (Anstead, 2017; Dommett et al., 2024; Kefford et al., 2023). Findings from the UK indicate a significant adoption of data-driven techniques among its major political parties, similar to trends observed in the US. This includes the use of sophisticated data analytics to inform campaign strategies and voter targeting.

In contrast to the UK, Germany has very strict data protection laws that significantly limit the scope of DDC. German parties are restricted from creating detailed voter profiles, which is a common practice in the US and less stringently regulated countries like the UK. This limits the depth and sophistication of data-driven techniques that can be legally employed. The cultural acceptance of data-driven practices in the UK contrasts with the skepticism and resistance seen in Germany, further influencing the DDC strategies in each country (Dommett et al., 2024).

Sweden would be placed between the UK and Germany in terms of the strictness of regulatory frameworks and the cultural acceptance of doing data-driven work. However, the differences across these European cases pale when contrasted with the US. We can assume the systemic and regulatory factors (e.g., the electoral system and the campaign finance laws), identified in the model by Dommett et al. (2024) as affecting the differences in DDC adoption across countries, to be similar, allowing us to focus on parties as actors facilitating the DDC process.

2.1. Party-Level Factors and DDC

The literature on DDC in a national context looks at party-level variables for understanding differences in how extensive and sophisticated data practices are. Chu et al. (2024) look at party age and distinguish between new parties and established parties, but do not find that in practice this distinction is significant for online ad microtargeting. New parties do not benefit more from online ads since they do not necessarily base their success on social media use. Dommett et al. (2024) identify four party properties that can affect DDC: resources, organizational structure, attitudes toward data use, and party ideology. We provide a brief overview of the literature on each of these factors below.

Among the four factors, resource availability has been the most studied, as it was deemed crucial in determining a party's ability to engage in any form of campaigning, including data-driven ones (Jacobs & Spierings, 2016, pp. 45–76). Party communication is based on acquiring facts about key issues, monitoring rival campaigns, and producing campaign materials within tight timeframes. This demands a well-equipped party infrastructure. Parties with ample resources enjoy greater flexibility in selecting campaign issues, allowing them to include more ads on multiple topics and target specific sub-constituencies through organized subgroups (e.g., youth organizations, women's organizations, etc.; Meyer & Wagner, 2016). In contrast, parties with limited resources are constrained in their ability to communicate multiple messages and are more likely to concentrate on a few core constituencies.

Looking more specifically at DDC, parties with more substantial financial backing are able to invest in the necessary technology and hire specialists, which facilitates more sophisticated data operations. Moreover, parties that invest in training their staff on data analytics can leverage their human resources more effectively, enhancing their campaign strategies (Dommett et al., 2024). Access to rich financial resources allows parties to purchase more data from social media platforms to commission customized opinion polls and run more targeted ads. Thus, there is a difference between large and small parties' capacity for DDC (Kefford et al., 2023).

Apart from resources, party organization has been known to play a role in successful campaigning. In the Swedish context, all parties are centralized; their campaigns are also centralized, with managers being represented in the party leadership (the party secretary and a steering committee are leading the national campaigns for all eight parties; Bolin et al., 2022, p. 43). Parties with a more centralized structure tend to implement data-driven strategies more effectively. Centralization allows for a unified approach to data handling and strategy implementation, which can be critical in coordinated campaigns (Dommett et al., 2024, pp. 38–39).

Third, and connected to the point above, the attitudes of party leadership toward data privacy, technology, and innovation significantly affect the adoption of data-driven strategies (Dommett et al., 2024, p. 40). Leadership that prioritizes data security and ethical considerations might be more cautious, potentially slowing down adoption but ensuring General Data Protection Regulation compliance and ethical campaigning. Leadership that values aggressive expansion and rapid adoption of new technologies may push for more innovative, albeit riskier, data strategies. Moreover, party leadership might propose different areas for DDC deployment, such as strategy, policy development, or outreach and communication.

Fourth, party ideology may also affect the extent to which parties implement data-based approaches. In Canada, Dommett et al. (2024) find that the Green Party is explicitly opposed to using personal data for microtargeting. Also in Germany, the Social Democrats, the Greens, and the Left Party had an internal opposition to microtargeting (Dommett et al., 2024, p. 187). Due to the small number of studies examining DDC practices in multiparty systems, it is difficult to anticipate which parties may utter these concerns that reduce the influence of DDC.

In sum, resource abundance, centralized structures, and forward-thinking leadership attitudes generally correlate with more advanced and effective use of data-driven strategies. These factors not only determine the extent of data utilization in campaigns but also influence how data-driven innovations are integrated into broader campaign strategies. The ideological orientation of parties may also play a role. Since there is so far little scholarly evidence about how these factors play out in European multiparty systems, and since the Swedish DDC practices specifically have not been analyzed before, we cannot formulate any hypotheses. We therefore ask the following research questions: How extensively are data-driven practices adopted in Swedish political campaigns, and what motivates parties to adopt them? What party-level factors influence the variation of DDC strategies in Sweden?

3. The Swedish Political Circumstances

Population data availability and data quality in Sweden are very high. Systematic data about the inhabitants of the country started to be gathered already in 1749 using church registers; in 1858 the national statistics bureau was founded, and data gathering has expanded ever since. Today, for example, voting data is finetuned to include electoral result maps at street block level. Not only is there a lot of data collected, but this information is also easily available. Sweden has transparency laws that make population data open (in many cases cost-free) for individuals and organizations. Finally, Sweden has a high-quality and very broad internet infrastructure, almost fully digitized public services, high social media use, and frequent electronic purchasing behavior (the country has among the highest scores in the European Commission's Digital Economy and Society Index). In sum, a large volume of high-quality, consistently measured historical and contemporary data is readily available on numerous social, economic, and voting parameters. Thus, the preconditions exist for Swedish parties' adoption of a data-driven approach in their political activities.

The Swedish electoral system is based on two-tier list proportional representation, with a threshold of 4% of the vote nationally, in which the majority of seats are elected directly in Sweden's 29 constituencies. The remaining seats are decided by national vote totals to correct any disproportionality. This distinguishes Sweden from other European countries studied in the DDC context, such as the UK (majoritarian voting system) and Germany (combination of majority voting and proportional representation).

From a European perspective, Sweden has a high share of state subsidies, and Swedish parties place high on an average party strength index (Webb & Keith, 2017). Public funds are allocated based on past performance: "Parties that have received at least 4 percent of the votes nationwide receive one full basic support amount for each year covered by the election" (Government of Sweden, 1972, amended in 2004, art. 6). As public funding is spread in proportion to size, smaller parties tend to have fewer resources, except for the Center Party which has its own investment fund.

Still, due to its more liberal campaign financing laws, differences between parties could in theory become larger. Swedish campaign finance laws are liberal in that there are no limits put on private donations to political parties or politicians, as long as these donations come from domestic givers (these donations can be anonymous up to a certain level, currently 24,150 SEK). All foreign financing is prohibited. Swedish campaign finance laws stipulate no limits on spending. Parties can use all their money as they see fit, including in messages against a candidate or party, but they cannot buy votes (Government of Sweden, 1962, Chapter 17, Section 8).

Transparency is ensured by the obligation of parties to report their finances via a revenue statement given to the Kammarkollegiet (the Legal Financial and Administrative Services Agency). The financial reports cover the full income (but not expenditure) of parties, not only those related to campaigning. These reports from political parties, MPs, and party-affiliated organizations are made public on the Kammarkollegiet website (with the names of the non-anonymous donors available upon request).

3.1. Swedish Political Parties: Ideology, Resources, Structure, and Attitudes

Below we introduce how resources, party structure, ideology, and attitudes toward data feature in Sweden, operationalizing the party-level explanatory variables highlighted above. All Swedish parties have well-defined organizational structures, with elected leadership, party congresses, and regional and local branches (Aylott & Bolin, 2019). Traditionally, the class cleavage has been the predominant one in Swedish politics, with two major parties being distinguished along a left–right scale, where to the left we have the Social Democrats (the largest party in Sweden since the interwar period), and, to the right, the Conservatives (Moderaterna). Several smaller parties are also present, two close to the middle of the political spectrum (the Center Party and the Liberals), one to the left of the Social Democrats (the Left Party), and one slightly to the left of the Conservatives, the Christian Democrats. The Sweden Democrats are more difficult to place on the left–right spectrum as they combine anti-immigration and socially conservative stances with an interventionist, "big state" approach. To account for their position, we can refer to the GAL–TAN axis (green/alternative/libertarian to traditional/authoritarian/nationalist; Hooghe et al., 2002), where the Sweden Democrats are clearly close to the TAN end of the spectrum, followed by the Christian Democrats and the Conservatives. At the GAL pole we find the Greens and the Left Party, and, in the middle, closer to GAL than TAN we have the Social Democrats and the Center and Liberal parties.

Resources are described in financial terms, as there is no available data about the staffing of each party. As shown in Figure 1, the Social Democrats are the most affluent, followed by the Center Party; the Liberals are the least wealthy. The source of the income varies by party. The Social Democrats gather money through their party lottery, the A Lotteriet. The Center Party has a large budget because it manages an investment fund. The Sweden Democrats report receiving 21% of their income from donations, the highest percentage among the Swedish parties. The Liberals' budget comes almost exclusively in the form of public financing

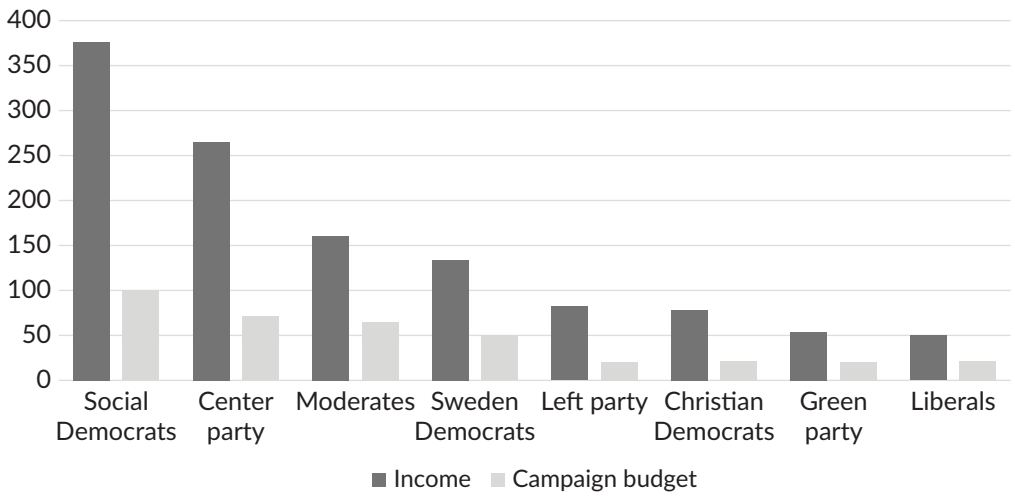

Figure 1. Financial resources: Reported income from political actors and size of their campaign budget in million SEK, 2022. Source: Kammarkollegiet (n.d.).

(87% of the reported income), whereas only a quarter of the total income of the Center Party comes from the state (Kammarkollegiet, n.d.). As financial resources vary greatly between the Swedish parties, the range between top and bottom parties is high in comparison to other European countries such as the UK or the Netherlands (Webb & Keith, 2017, p. 53).

Party structure and leadership's attitudes toward data are two variables that we found less straightforward to operationalize. For party structure, we approximated it by the Chapel Hill Expert Survey variable *membership vs leadership*, where a score of 0 means that members/activists have complete control over policy choices and a score of 10 means that it is the party leadership that has full control. To capture the attitudes toward data in the party elite, we relied on an index for the digitalization of campaigns (Grusell & Nord, 2020). Even though this measure is based on older data, we use it because it captures well the theoretically derived elements of data privacy, technology, and innovation. The index includes items such as the use of internal and external digital tools, an overall internet evaluation, and the perceived relevance of digital communication channels.

Figure 2 summarizes the hierarchy and digitalization scores of Swedish parties. The Chapel Hill Expert Survey data on hierarchy shows that most parties that cluster in the center on that scale tend to balance the top-down and bottom-up governance models, leaning overall towards empowering the grassroots. This is particularly the case for the two historically largest parties, the Social Democrats and the Conservatives. The Sweden Democrats, the most hierarchical party, are very top-steered for historical reasons, as the party leader, Jimmy Åkesson, has centralized the party to limit the expression of extremist voices within the party, similar to other radical right parties (Art, 2018). The least hierarchical party is the Greens, an inheritance from their origins as a recent grassroots movement, also fitting a general trend (Rihoux, 2016).

Despite differences in size, hierarchy, and ideology, all political parties' campaign managers in Sweden claim that they have highly digitalized campaigns and internal communications (Grusell & Nord, 2020). The differences between parties are small, and in the period since Grusell and Nord's publication, the gaps may have grown even smaller. Thus, we can conclude that Swedish party elites have a positive attitude toward data and digital channels.

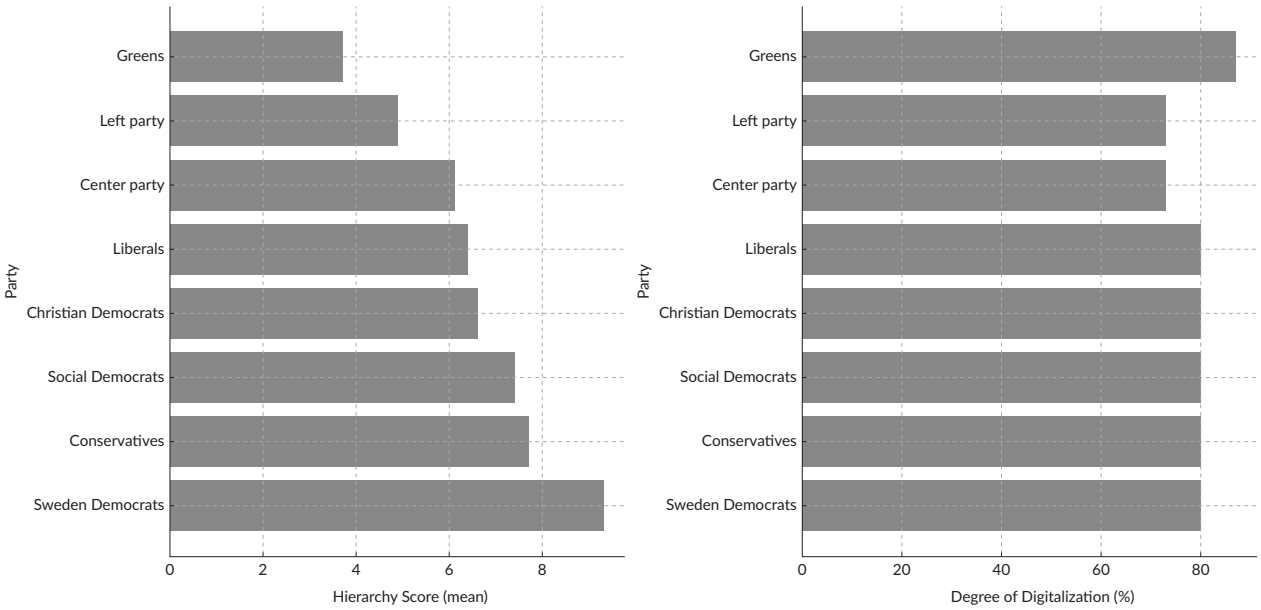

Figure 2. Party hierarchy score with 0 the least and 10 the most hierarchical. Sources: Chapel Hill Expert Survey 2019 (Jolly et al., 2022); Digitalization Index from Grusell and Nord (2020).

4. Research Design and Method

To evaluate the influence of party-level variables on DDC, we interviewed 15 campaign managers at national and regional (Scanian/Skåne) levels representing all eight parties in the Swedish parliament. The Sweden Democrats could not be reached at the regional level and the Conservatives could not be reached at the national level. For the Social Democrats, we interviewed two persons at the national HQ due to their campaign structure; otherwise, we had one person per party and level. The participation of all interviewees in the study was voluntary. The interviews were performed online in the period immediately before and immediately after the national parliamentary elections of September 11, 2022. There was a maximum of six weeks between the interviews before the elections and those after election day, which allows us to maintain that this time difference did not affect the responses.

Each interview followed the same questionnaire as the one in Dommett et al. (2024), with questions divided into several blocks: attitudes towards data analysis, use areas, obstacles and opportunities, and future directions. The questionnaire was translated into Swedish, to be found in the Supplementary File, and contained altogether 25 questions. All interviewees received the questions beforehand and had the option of answering them in writing or in a live conversation, an option preferred by all minus one party campaign responsible. The interviews lasted between 30 minutes and 1 hour and a half and were conducted in Swedish.

The interviewees were granted anonymity, which is the reason why we are not very precise in describing the exact position the respondents held in the campaign hierarchy of staff. We offered the interviewees the option to speak without being recorded and all of them chose this alternative. This is why the conversations were never taped; instead, one author took notes while another was asking questions.

We performed a manual qualitative thematic analysis of the interview materials, facilitated by the direct connection between the structure of the questionnaire and our theoretical focus on the four party-level variables: attitudes, resources, use areas, and structure of the campaign. We annotated each interview identifying each of the four variables per party, and then grouped the resulting labeled texts by topic (e.g., motivations, use areas, etc.).

5. Results

5.1. Extent of DDC Use

All parties use some form of DDC in their campaign. We asked party officials whether their party uses DDC as well as about their perceptions of the other parties' sophistication in terms of data use. According to both self- and others' perceptions, the Center Party and the Social Democrats are seen as the most advanced in this process. Even if they are not equally far ahead, the other parties also clearly identify themselves and their political competitors as adopters of data analytics. The one exception is the Sweden Democrats.

The Sweden Democrats state that they do not embrace data analytics and that they do not believe in a data-driven approach. They appear to be critical of microtargeting and of using data as a strategical ground for decisions within the campaign, instead claiming: "We think what we think and then it is up to the people to vote for us." The Sweden Democrats accuse other parties (and the Social Democrats in particular) of being too eager to follow public opinion and adapt their politics to the voters' wishes. While the Sweden Democrats state that they do not systematically analyze data, they nevertheless admit that they collect and evaluate data from their digital channels and call social media "extremely important" for their outreach.

Seen from the other parties' perspective, the Sweden Democrats appear even more adept at crafting a digital presence than they themselves would let on. However, there seems to be an agreement that, while they are active digitally, this does not transfer into being active in the DDC sphere. The Center Party perceives the Sweden Democrats as a clear example of a party that profits greatly from its digital presence without having to put in as much effort (compared to the rest).

The Social Democrats explain this by saying "[Sweden Democrats] is a popular movement born in the digital world." In contrast:

> [Social Democrats] was founded as a popular movement over 100 years ago. Our credibility lies in that people expect us to be the Social Democrats [a more traditional, state-bearing, party]. We need to adapt to how people consume information and understand the world around them while not adopting populist ways; we cannot adjust to their [Sweden Democrats'] tone.

5.2. Motivations for Using Data-Driven Approaches

When discussing the reasons to introduce a data analytics approach, our interviewees contrast it with the old ways of decision-making within the party. They emphasize the positive aspects of DDC as compared to previous practices in that it can be juxtaposed against intuition, guesswork, or heuristics. For example, the head of communication for the Left Party says:

> In a party with many divergent views on many things, you can take support in data. There will always be people who say that if we had pursued that issue, it would have gone better. Then it is helpful to have measures to look at.

Data is viewed as a way to reach decisions acceptable to a majority in the party leadership and membership, in a context of competing views and ideas about what can be done. This echoes Munroe and Munroe (2018), who 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" (p. 139). Moreover, this testifies to the desire of Swedish parties to adopt a modern and "scientific" approach (Römmele & Gibson, 2020).

Another motivation is related to the need to obtain more information about the wants and needs of the electorate in an age where party membership is low. Even well-maintained member registers are insufficient to paint a broad picture of the potential voter, because of the small number of party actives. One party (Liberals) says:

> In 1979, 10% were party members. Now that number is down to 2%. A fifth of the Swedish population joined the popular movements that built the Swedish political assemblies. It is important to maintain contact with the grassroots, for trust and legitimacy. Parties need to figure out what this contact should look like nowadays. From that perspective, parties have an obligation to gather data by other means.

The same idea of needing to be in touch with the public and to reach them by hitting the right note is echoed by the Center Party: "When the competition over attention in the media is great, it is crucial to get the message out in the right channels. Thus, data about different media's audiences get extra interesting for us."

We can conclude from our interviews that all parties collect data and analyze it, even if some parties are more advanced and some more reluctant to do so, corroborating Grusell and Nord (2020) and Bolin et al. (2022, pp. 74–83). Experience with digital communication channels does not automatically imply a preference for DDC. The primary motivations for working with data analytics are to measure campaign performance, provide legitimacy to campaign decisions, and remain in touch with the electorate.

While DDC adoption and motivations are generally similar, it is interesting to further probe the existence of differences among the eight parties, following the four variables of resources, structure, attitudes towards data, and ideology.

5.3. Resources

There are substantial differences in the resources parties have dedicated to data analytics in their campaigning. Because of campaign finance rules, the larger parties tend to get more support from the state than smaller parties, perpetuating an imbalance. However, parties that can recruit individual donations or that have external sources of financial support will supplement public sources with private funding.

The Social Democrats and the Center Party use the most sophisticated forms of DDC in Sweden, both according to themselves and the other parties, with the Conservatives in third place. Our interviewee from the Center Party says that they can afford to measure and analyze more than other parties. The Social

Democrats believe that they are most similar to the Center Party in terms of campaign spending ("we probably spend as much or more, in particular on social media") but that they probably are the most resource-strong party in terms of staff. They can invest staff time in data analytics and testing and can train internal people to respond to the data needs of the campaign. Richer parties can thus afford deeper mining of the data, in contrast to less affluent parties who are limited to more short-term temperature measures.

The resource imbalance is reflected not only in the degree of data analysis but also in the type of data sources parties can afford. All parties use freely available data from the official statistical bureau and from opinion polls whose results are published in the media. They monitor their own social media and other digital channels using the analytical tools provided by the platforms. For example, all parties use Facebook tools such as "core," "lookalike," or "custom" audiences to identify specific types of voters or those who have certain attributes in common, such as location, age, language, or gender. All engage in social listening to measure impact and pick up on discussions online.

The difference comes in the form of supplementary data. Richer parties can commission their own opinion polls and obtain more fine-grained and customary data that allow them to tailor messages regionally or by other segmentation (profession, age). Richer parties can periodically organize focus groups that give them more context from which they can interpret the data obtained from social media or from opinion polls.

5.4. Structure

The structure of a party (how strong is the central leadership versus regular members/local branches) is reflected in the organization of the party's electoral campaign and thus may affect how data analytics is included in the campaign activities.

The organization of the campaign and communication strategies are on paper rather similar (Bolin et al., 2022, p. 43) but are implemented quite differently across parties. In some cases, the teams are organized centrally to deal with all data and campaign materials. In some other cases, the campaign is structured in siloes, each dealing with a separate aspect of the campaign. The collaboration between the teams in charge of implementing the campaign and the strategic division of the parties is also more or less tight. We will illustrate with some examples below.

Smaller parties (Liberals, Greens, Center, Left) tend to be less hierarchical and their campaign structure is more compact and closer to the party leadership. The people working with data/digital campaigning are typically the same people who have the overall responsibility for the party's information and campaign activities, and for developing the party's brand. This enables efficiency and less coordination effort. There are, however, nuances in this small party category. For example, the Green Party has a flatter organization of the campaign—as a result "many get a say about many things all the time." This makes it extra important to clearly anchor strategies within the organization, an activity that is described as a central part of the campaign manager's efforts.

The Left Party aims to be a "united party, with everyone pulling in the same direction." The central level gives the general campaign direction and allows other levels to adapt it and express their own ideas, accommodating a diversity of members' views. However, "there is a desire from the leadership for a more cohesive and coordinated campaign than they were able to achieve." Thus, despite having access to a

well-structured member register and a digital application for internal communication with party members of their own design (the Zetkin app), the Left Party was unable to mobilize its data resources in a coherent way because of organizational problems in the party before the 2022 elections.

At the other end of the spectrum, the Social Democrats, Sweden's largest party and a decentralized one, operate with a campaign team divided into two segments: one dedicated solely to managing organic social media and web presence, the other dealing with digital ads. Moreover, the campaign also includes a team in charge of opinion polls and focus groups, but, rather surprisingly, there is no one responsible for coordination. The choice of not having a digital campaign manager is rooted in being a less hierarchically managed organization. Instead, coordination occurs through regular meetings between the three teams. While this structure fosters autonomy, it also risks fostering silo mentalities, according to our interviewee. This organizational approach raised internal concerns regarding internal competition for resource allocation and the challenge of reconciling diverse communication objectives within a unified framework. However, separating the team affords them autonomy, as they can "run at their own pace, without compromising with each other." Potential drawbacks are reduced synergy and heightened coordination demands. The interviewees suggest a future shift towards task division based on target groups, advocating for a more holistic approach to digital engagement. They also acknowledge a need for a centralized coordination function, bridging current organizational gaps.

The Christian Democrats, a small but less hierarchical party, mention that the campaign is partly centralized, partly flexible. The central organization provides templates for infographics and video posts, as well as materials involving the party leader. Regional organizations have autonomy in deciding how to use the templates and how to implement the strategies. For example, even if the central campaign is not data-oriented, regional campaigns can apply data-based methods to their own constituencies, and regional campaign managers are allowed to experiment.

5.5. Attitudes Toward Data and Use Areas of DDC

Our interviews show that, while Swedish parties see data analytics as beneficial, all of them believe that data must be an integrated part of the overall campaign strategy and not something that can be conceived of on its own. When there is a difference between party culture or tradition and the data-based suggestion for a course of action, tension is likely to occur.

The Center Party says that they invest considerably in data and digital campaigning in relation to other parties but that they do not get that much in return. One reason for this is the discrepancy between the way things have been done traditionally in the party and the new, data-oriented, ways. The Center Party interviewee said that digital campaigning is not really built into their party's culture, since they are a "typical door-knocking party."

Even the Left Party mentions the tension between the actions suggested by the data and the ones coming out of experience. The Left considers that DDC has a potential drawback in that data analysis may distort perceptions of what works well or not because of a focus on immediacy and measurable outcomes. Data can be deceiving:

> When you have access to a lot of continuously updated data, you can become short-sighted. And if you become short-sighted, it is difficult to be consistent. It is better to have a bad plan that is consistent than to have a good plan that changes all the time.

Therefore, it is important to balance "gut feeling and getting a hint [from the data] about what works, to learn about target groups and how to run processes."

The tension exists not only between intuition and data-based approaches, but more widely between traditional forms of data analysis (such as surveys and focus groups) versus digital data (such as social media ad performance). Many parties emphasize that salient issues online are very different from the issues voters rank as most important in surveys. In the words of the Christian Democrats, surveys identified healthcare as one of their top prioritized issues followed by heartland/countryside, and, finally, safety. Our interviewee said that if the Christian Democrats had relied only on digital data, they would have concluded that healthcare does not qualify as a top issue, based on social media engagement. Safety, on the other hand, appeared high as a priority on social media, but not in the survey of the broader population.

All parties seem to agree that the introduction of new data forms and new data-based processes is not unilaterally positive but contains ambiguities and tensions. Negotiating their way through these tensions will challenge the established ways of doing this and may reshape the party campaign organization.

5.6. Ideology

Data-driven techniques may change the election campaign structure, but parties are very reluctant to let them change the primacy of ideology for policy development. All parties agreed, in no uncertain terms, that they see data as a tool to get their ideological message out to the public and not as a tool to change the foundational ideas they build their agenda on. This consensus view is reflected in the absence of ideological differences in DDC adoption. Parties varying on the left–right and GAL–TAN scales say that they are equally inclined to use data-based approaches both strategically and evaluatively.

The exception here is the Sweden Democrats, the Swedish party that has grown the most in the past decade. Located at the TAN end of the political spectrum, the Sweden Democrats' campaign leadership acknowledges the digital data collection and a strong digital presence, but no data-based policy suggestions. The emphatic rejection of DDC in favor of both more experiential strategy design and of ideological agenda-setting is meant to present the party as authentically motivated by fundamental values and principles and not interested in opportunistically "chasing votes."

While the Sweden Democrats' statement is the most clear-cut, the other parties also propose a version of DDC that plays a role in strategy building, communication, and internal use—but not in policy development.

The Center Party interviewee declares: "Our 2022 campaign is absolutely data-driven, but data do not determine policy. Rather it is about using data to be able to communicate politics more efficiently." The Christian Democrats have a similar take:

> Being too ideological about policy is often described as a trap, with the risk that you develop policies around things that people do not think solve their problems. Against that background, data can play

> a role: It helps us learn what people are worried about, identify societal problems, and then, from an ideological foundation, to seek an answer to those concerns.

For other parties, data may help them not only identify the priorities and problems of the voters but also to adjust their policy agenda. The Left Party interviewees mentioned one instance where they noticed that a new issue became important in their social media data analysis. This led them to look over their policies to make sure that they were sufficient to address the respective issue or if the campaign needed further adjustments or even adopt new policies.

Data analytics as a confirmation or adjustment of the policy agenda is a role also identified by the Social Democrats. According to them, a policy has so many components to it that even if ideology comes first, data can improve decisions related to policy development: "If we see some issues becoming salient, we might need to prioritize differently." For the Social Democrats, the campaign strategy with prioritized issue areas was set about half a year before the 2022 election and built on the priorities set by the party leader (a new phenomenon started with Magdalena Andersson, the prime minister at the time). Then, the war in Ukraine, NATO, and the war's effects on the economy made the PM's leadership qualities come into focus. Data analytics allowed the Social Democrats' campaign to be agile and adapt faster to the changing political environment: "It is difficult with election pledges because we need to constantly adjust, and the result is only visible after the election. Election manifestos are no longer relevant or at least not as they previously functioned." For most parties, it is important to leave room for longer-term, ideological perspectives, as data analytics is useful primarily in the short term.

6. Discussion

One takeaway of our study is that, in Sweden, data analytics is an established practice for all eight parliamentary parties, though to a lesser extent for the Sweden Democrats. Moreover, parties have similar information sources for extracting patterns of behavior and attitudes among the Swedish electorate, making good use of the high volume, quality, and availability of public data. Thus, all parties exploit the systemic structures in which they operate. Party structure does not affect the implementation of data analysis, as more or less hierarchical parties are at the same level of DDC inclusion. The structure of the electoral campaign, however, matters, with more professionalized and therefore centralized campaigns being more adept at leveraging insights from the data to inform strategies.

This said, parties can still be divided into a top tier that is more active in the implementation of DDC (Social Democrats, Center, and Conservatives) and a second tier, with less sophisticated data use (Sweden Democrats, Christian Democrats, Liberals, Left Party).

The three top DDC adopters are the richest of the eight Swedish parties. They can afford to hire expert services and to commission customized opinion polls and focus groups at different points in the campaign. Thus, they have better data and better analysts to make sense of it. However, even here there are exceptions. The Sweden Democrats benefit from a lot of resources but choose to invest them elsewhere; they resolved the tension between a more experience-based and a more data-based approach by favoring experience.

Party ideology does not seem to matter in the adoption of DDC, as parties from across the political spectrum are interested in data collection and analysis. The Center Party is located in the middle, ideologically, and has participated in both center-left and center-right coalitions. The Social Democrats and the Conservatives constitute the two traditional poles of Swedish politics, the first on the center-left, the latter to the center-right. Since the three parties cover all centrist standpoints and appeal to moderate voters (cf. the spatial voting model in Downs, 1957; and the catch-all party thesis in Kirchheimer, 1966), we can propose that, instead of ideology, other party features may be more relevant to DDC adoption.

We argue that *party type* is more relevant than ideology: Catch-all parties are more interested in DDC because their policy portfolio is broad and the potential voters more numerous than for niche parties. We have seen that DDC can help split the electorate but only in large segments to not contradict privacy rules and norms. We have also seen that parties use data to keep their flexibility when the context is volatile. But one-issue parties with a narrower base do not gain traction by segmenting even further their electorate. Instead, they would rely on their core issue to gain votes. Moreover, they likely do not have a broad policy appeal. Thus, it is catch-all parties with a diverse policy offering that would benefit the most from DDC—and the top DDC adopters among the Swedish parties fits that trend.

Swedish campaigns clearly separate between policy and communication. Communication is where data analytics makes its primary contribution. In contrast, policy formulation remains an ideological matter. This is a long-term trend, as already in 2013 party elites ranked ideology above campaign strategies and tactics (such as door-to-door canvassing or messaging through the party's digital channels; Strömbäck et al., 2013, p. 47). However, data insights are used as a corrective to the pre-established and ideologically derived policy agenda. Data insights help parties to remain agile and adapt to new contexts that appear during the campaign period. This is explained by their competition for a large group of middle voters. Voter mobility is high in Sweden, with party membership lower and party allegiance weaker. Plus, tactical voting is common, where citizens vote not for a preferred party but for the governmental coalition where that party would be present (Fredén, 2014).

The biggest practical challenge for DDC deployment in Sweden is the size of the domestic population. In contrast with larger electorates elsewhere, it is not possible to perform a fine-grained segmentation by issue crossed with location and/or occupation, say, because the results would be too narrow, risking breaking privacy laws. This inherent limitation, recognized by all parties, combined with voter volatility and the high cost of integrating data analysis into the party structure and practices, makes heavy investment in DDC less attractive. Instead of going all-in on the data front, Swedish parties walk a middle ground, where ideology provides the main message priorities, and data analytics, in tandem with experience and intuition, gives shape to this message.

6.1. Limitations

This study presents the perspective of the campaign managers themselves, who communicated their subjective perceptions, perhaps conveying partial or misleading information. They offered details about internal party procedures, roles, and decisions that could not be verified by cross-checking with other sources, since there were no other party officials available for interview. We mitigated this risk by comparing with existing literature on Swedish campaigns (e.g., Bolin et al., 2022; Grusell & Nord, 2020).

Of the eight parties, the Conservative national campaign HQ was the only one to not respond to our interview requests. Consequently, the DDC practices of the Conservatives might have been inaccurately represented here. We addressed this shortcoming by referring to other interviews that the campaign manager for the party gave to media outlets and podcasts and by consulting in depth with the responsible for the Scania regional campaign.

7. Conclusion

Despite the above limitations, according to interviews with campaign officials, political parties in Sweden tend to be rather similar in their approach to DDC. Thus, systemic and regulatory factors are important in understanding the choices made by Swedish parties. Party-level variables are only somewhat useful to explain the small-scale differences between the eight parties here. Access to economic resources mattered, with more affluent parties implementing DDC on a wider scale, but size, structure, and ideology do not affect DDC adoption. We found ideology to be an unconvincing factor in explaining the diversity of attitudes towards data analytics. Instead, we propose party type, distinguishing between catch-all and niche parties, as a more useful party-level variable, and invite DDC researchers to test it in their future work.

Sweden is a case of a small but data-dense country governed by rather generous campaign finance laws and by high data transparency (albeit still under EU privacy law restrictions). In addition, Swedes are used to coalition governments and often vote tactically to support not one party but one future governing alliance. The overall party similarity in DDC adoption emphasizes the limited role of party-level factors and, instead, the relevance of regulatory and systemic factors, which would indicate that DDC adoption patterns in other countries fitting Sweden's profile might be similar (e.g., in other Nordic countries, or smaller and richer EU member states such as Austria). Here an avenue opens for comparative research.

Conflict of Interests

The authors declare no conflict of interests.

Supplementary Material

Supplementary material for this article is available online in the format provided by the authors (unedited).

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ARTICLE

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More Than Meets the Eye: Understanding Political Microtargeting Processing With Gaze-Cued Retrospective Think-Aloud Methodology

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Abstract

Political microtargeting is a popular campaign tool in elections worldwide. However, it is associated with democratic risks. Foremost, scholars and policymakers are concerned that citizens cannot cope with political microtargeting and, thus, stand vulnerable to persuasion. To assess this risk, an in-depth understanding of how citizens make sense of and cope with political microtargeting is required. However, empirical studies are scarce, partially inconclusive, and provide global rather than nuanced insights. This study contributes to this research by employing an innovative, qualitative gaze-cued retrospective think-aloud design to distinguish coping patterns and, based on that, assess citizens' vulnerability to persuasion via political microtargeting (N = 25). The results reveal similarities regarding conceptual persuasion knowledge activation (i.e., advertising and targeting awareness) but differences in attitudinal and behavioral coping, illustrated along five coping patterns (avoidance, coherence assessment, ad quality assessment, partisanship bias, and neutral observation). Only individuals who cope by neutrally observing the political message seem vulnerable to political microtargeting. For individuals who cope with political messages based on their partisanship, political microtargeting might strengthen existing ties but backlash when employed by a non-preferred party. This study informs educators and policymakers about citizens' coping mechanisms with political microtargeting and their potential vulnerability, which may guide intervention and regulation decisions.

Keywords

cognition; coping; persuasion; political attitudes; targeted ads

1. Introduction

Political microtargeting has become an inherent part of modern election campaigning and is pervasive across the world (Votta et al., 2024). However, it is not a new concept: Tailoring messages to target audiences via segmentation and canvassing is a longstanding practice in political campaigning (Baldwin-Philippi, 2019). Instead, it is the precision to which a message can be adapted and efficiently distributed to a nuanced target group (Dommett et al., 2023) that fuels the hopes of political advertisers and the concerns of scholars and policymakers (European Data Protection Supervisor, 2022; Hameleers, 2023; Matthes et al., 2022; Zuiderveen Borgesius et al., 2018).

Both sentiments seem justified, considering the findings of a recent meta-analysis supporting the persuasive power of personalizing messages in general (r = .20; Joyal-Desmarais et al., 2022)—a persuasive power that is associated with many theorized benefits and risks for democracies (Zuiderveen Borgesius et al., 2018). However, the premise for such argumentation is that citizens are vulnerable to persuasion via political microtargeting. But are they? To answer this question, this study aims to contribute to an in-depth understanding by illustrating citizens' sense-making and coping patterns with political microtargeting—how they view, recognize, evaluate, and react to it.

1.1. Theoretical Background and Current Understanding

1.1.1. Issue-Related and Identity-Based Political Microtargeting

Political microtargeting follows a simple idea: Messages congruent with one's data profile are perceived as more personally relevant, which is believed to prompt positive advertising outcomes (Krotzek, 2019). Increasingly through the use of artificial intelligence (AI; Jungherr & Schroeder, 2023), campaigners may target various characteristics (Dommett et al., 2023). This study focuses on issue-related and identity-based political microtargeting.

Issue-related political microtargeting aims to create congruence between the addressed issue and the citizen's interests and/or stances (Chu et al., 2023; Endres, 2020). While issue-related political microtargeting is not as widely used as targeting location and socio-demographic criteria—likely for feasibility reasons—it is still prevalent and ascribed significant influential potential (Bennett & Gordon, 2021; Y. M. Kim et al., 2018; Votta et al., 2024). In this study, we focus on issue-related political microtargeting based on targeting one's interests.

Identity-based targeting aims "to appeal to voters' affective attachment to their politicized social group" (Holman et al., 2015, p. 816). For example, referencing identity appeals within messages, through symbols or images of group members, may account for identity-based political microtargeting (Holman et al., 2015). Identity-based targeting has various subforms (e.g., based on one's gender or ethnic group; Hersh & Schaffner, 2013; Holman et al., 2015). We focus on identity-based targeting based on representing one's age and gender group in the visuals of an ad.

Campaigners may target individuals based on their party preferences, which could be classified as identity-based targeting. However, parties also communicate outside their voter base and ideological in-group, although to lower extents (Kruikemeier et al., 2022). Hence, in this study, we investigate political microtargeting from preferred and non-preferred parties.

1.1.2. Viewing and Processing Political Microtargeting

Personally relevant messages will be attended to and processed (see biased competition theory; Desimone & Duncan, 1995). Previous studies in commercial advertising research support that targeting may enhance personal relevance (van Reijmersdal et al., 2022) and increase visual attention (Bang & Wojdynski, 2016; Malheiros et al., 2012; Pfiffelmann et al., 2020). From political advertising research outside the microtargeting context, studies suggest that citizens selectively attend and avoid political ads according to their party preferences (i.e., *selective partisan exposure*; Marquart et al., 2016; Schmuck et al., 2020). However, there is no literature on how these relationships manifest in the context of political microtargeting.

1.1.3. Recognizing Political Microtargeting

To defend themselves against persuasion, individuals first need to recognize a persuasion attempt (Friestad & Wright, 1994). To illustrate the recognition of political microtargeting, we draw on the Covert Advertising Recognition and Effects (CARE) model (Wojdynski & Evans, 2020), which presumes factors at the individual, disclosure, message, and delivery context level.

At the individual level, citizens differ regarding their available cognitive resources and *persuasion knowledge*. Persuasion knowledge relates to individuals' advertising literacy and "helps them identify how, when, and why marketers try to influence them" (Friestad & Wright, 1994, p. 1). It is further distinguished by agent (i.e., knowledge about the advertiser), topic (i.e., knowledge about the addressed topic), and tactical persuasion knowledge (i.e., knowledge about the persuasive strategy; Friestad & Wright, 1994). Scholars further distinguish between conceptual persuasion knowledge (i.e., advertising awareness, targeting recognition) and attitudinal persuasion knowledge (i.e., attitudes toward the persuasion strategy and message; Boerman et al., 2018; Van Reijmersdal et al., 2023). However, persuasion knowledge is acquired over time and specific to the respective tactic. Thus, new advertising strategies might mitigate individuals' awareness of the actual dimensions of a persuasion episode and leave them vulnerable (Boerman et al., 2018; Haley, 2020). While recent insights suggest that individuals have developed some conceptual persuasion knowledge regarding political microtargeting (Minihold et al., 2024), the circumstances under which they activate this knowledge require further investigation.

Besides their knowledge predispositions, individuals seek information in and around the message to activate targeting-specific conceptual persuasion knowledge (Wojdynski & Evans, 2020). At the disclosure level, a "Sponsored" label seems effective in eliciting advertising awareness (Jansen & Krämer, 2023b; Kruikemeier et al., 2016), but the effectiveness of targeting-specific disclosures (e.g., "Why am I seeing this ad?") on targeting awareness is unclear (Binder et al., 2022; Hirsch et al., 2024; Jansen & Krämer, 2023a). At the message level, political fit (i.e., is the source a preferred party?) prompted targeting recognition (Binder et al., 2022; Hirsch et al., 2024), but the role of issue fit (i.e., is the issue of interest?) is underexplored (Hirsch et al., 2024). Findings by Hirsch et al. (2024) suggest that issue fit does not affect targeting recognition. However, they simulated issue fit via issue proximity instead of actually targeting individuals' interests. More research is needed to understand this relationship. At the delivery context level, the timing and platform may facilitate conceptual persuasion knowledge activation. While this has not been tested, Zarouali et al. (2021) conclude that individuals share an understanding of how algorithms curate online environments, which may facilitate targeting recognition.

1.1.4. Political Microtargeting, Attitudes, and Behavioral Reactions

In the persuasion literature, "coping" is neutrally defined as a means to "maintain control over the outcome(s) and thereby achieve whatever mix of goals is salient" (Friestad & Wright, 1994, p. 3). Hence, coping mechanisms refer to conscious and nonconscious attitudinal and behavioral adjustments (e.g., skepticism, attitudes, reactance, avoidance; Coping Mechanism, 2018).

Preceding studies suggest that citizens generally reject political microtargeting (Turow et al., 2012). However, recent studies indicate that political microtargeting acceptance largely depends on individuals' stances toward the source (Binder et al., 2022; Hirsch et al., 2024; Vliegenthart et al., 2024). These results may be rooted in social identity theory (Tajfel & Turner, 1986), which presumes that individuals categorize social environments into social groups and discriminate between in and out-group members. Furthermore, they establish their self-image and social identity based on their memberships. In turn, social identity has been shown to influence perceptions, attitudes, and behavior in favor of the in-group (Cohen, 2003). Such biased processing may even overcome situational discrepancies, where ideological beliefs become subordinate (Cohen, 2003). Applied to the current study context, individuals may be more accepting of political microtargeting by their preferred party, even if they are generally skeptical. Issue fit may also positively relate to political microtargeting acceptance, although this relationship has not yet been established in experimental settings (Hirsch et al., 2024; Vliegenthart et al., 2024).

In turn, political microtargeting seems positively related to ad and party attitudes (Chu et al., 2023; Zarouali et al., 2020), even when targeting-specific conceptual persuasion knowledge seems activated (Binder et al., 2022; Hirsch et al., 2024). This contrasts findings from traditional persuasion knowledge research, which suggests a negative impact of conceptual persuasion knowledge activation (for a meta-analysis, see Eisend & Tarrahi, 2022).

Regarding (intended) behavioral responses, scholars have focused on avoidance (Minihold et al., 2024; Stubenvoll et al., 2022) and voter behaviors (Chu et al., 2023; Gerber & Green, 2017; Zarouali et al., 2020). Personalization perceptions reduce ad avoidance, while privacy concerns and political microtargeting distrust increase them (Minihold et al., 2024; Stubenvoll et al., 2022). Furthermore, studies suggest that political microtargeting helps mobilize citizens during elections (Gerber & Green, 2017) and may affect (intended) vote choice (Chu et al., 2023; Lavigne, 2021; Zarouali et al., 2020). However, vote choice effects largely depend on preexisting party attitudes (Chu et al., 2023; Lavigne, 2021).

1.2. Relevance

Despite the growing body of empirical studies, we still lack an understanding of whether citizens stand vulnerable to microtargeted persuasion attempts. One reason may be that we know little about how citizens cope with political microtargeting when they encounter it. Preceding studies focused on quantitative, deductive approaches. However, to understand what coping mechanisms are available to citizens, an explorative approach is vital. We opt for an innovative, gaze-cued retrospective think-aloud design. In contrast to other quantitative and qualitative approaches, this methodology may provide unique, in-depth insights into immediate thoughts and cognitive processes in a (close-to) real-time scenario. Such insights may help to (a) inductively uncover by what means individuals *currently* cope with political microtargeting, and

whether and how citizens understand if a political message is microtargeted at them (or if this is even necessary), and (b) evaluate their vulnerability to microtargeted persuasion on the basis thereof. Such insights may contextualize preceding inconclusive findings, help policy-makers distinguish the real from the potential threats of political microtargeting, and inform scholars and educators in developing effective knowledge interventions.

2. Methodology

This study employs a gaze-cued retrospective think-aloud design (Muntinga & Taylor, 2018). This integrative method combines eye-tracking technology with a think-aloud protocol and semi-structured interviews. It is a unique way to qualitatively identify and explore patterns that reflect cognitive processes during and after stimulus exposure and overcome certain limitations of self-report measures, eye-tracking, and quantitative approaches.

For example, targeting recognition has been investigated exclusively with self-reports (Binder et al., 2022; Hirsch et al., 2024; Jansen & Krämer, 2023b). Naturally, exposure to the item wording (e.g., "These posts show personalized advertising"; Binder et al., 2022) may nudge respective elaboration processes, possibly resulting in stronger targeting recognition than was achieved by exposure to the stimuli. Think-aloud protocols and semi-structured interviews may accommodate this issue due to their open-ended format.

As another example, eye-tracking may objectively capture oculomotor motions. However, their interpretation is not objective: Fixations may correlate with interest, salience, or expert status, for example (Brams et al., 2019; Mahanama et al., 2022). Hence, causes for fixations may only be deduced. Furthermore, eye movements are not necessarily reflective of conscious and attentive processes—which, to date, may only be accounted for by means of conscious reports (Lamme, 2003). A gaze-cued retrospective think-aloud protocol, in addition to a semi-structured interview, may help distinguish between mere fixations and consciousness and attentiveness as well as uncover the reasons for it.

Lastly, quantitative research is generally limited in its ability to explore new phenomena due to the deductive approach. It may only investigate potential mechanisms that researchers are aware of or assume. In contrast, qualitative methodologies may be used in an explorative manner by means of inductive analysis approaches (Azungah, 2018).

A gaze-cued retrospective think-aloud design has limitations. As a qualitative method, the results (a) cannot be generalized to a population, (b) are not scalable, and (c) are nested within the respective research context. Also, the results may be influenced by social desirability biases, particularly considering the political context. We tried to reduce social desirability bias by ensuring anonymity and confidentiality as well as by neutral wordings, indirect questioning, and warm-up questions. Also, we did not rely on personal networks and informed individuals during recruitment that questions and contents may concern political topics.

In sum, the study may contribute to the literature by means of methodological triangulation, investigating additional layers to concurrent understandings, identifying new directions, and inspiring new avenues for future research (Flick, 2022).

All materials are available in the OSF online appendix (i.e., measures, stimulus examples, interview guidelines, hardware and software specifications, transcripts, coding schema; https://osf.io/fykaq/?view_only=6de123c1570447f1b3645716864ba591). The institutional review board at the Department of Communication (IRB-COM) of the University of Vienna, Austria, screened the study (review no. 982).

2.1. Recruitment

The sample was recruited with a survey company. Participants were required to own a Facebook account to account for some familiarity with Facebook posts, as this may affect gaze patterns (Mahanama et al., 2022). Also, they were required to reside in Austria. They were screened for having a sight deficit of ±6 diopters and higher, using varifocals, and/or having a chronic eye disease.

Participants answered an online questionnaire (approx. 5 minutes), indicating their demographics, party preferences, and interests in 10 political topics. Potential participants were invited to the lab. At a minimum, a day lay between recruitment and the lab appointment.

Data collection stopped at the point of information saturation (N = 25) while aiming for a diverse distribution of age (M = 45.52, SD = 18.59, Range = 18–76), gender (52% female), and education (32% lower, 44% intermediate, 24% higher background). Information saturation was reached when answers became repetitive and did not add any new information during the think-aloud and interviews.

2.2. Data Collection

At the lab, data was collected in three steps (approx. 30 minutes): (a) stimulus exposure, including eye-tracking, (b) gaze-cued retrospective think-aloud exercise, and (c) supplementary semi-structured interviews. Finally, participants were debriefed and compensated with 20€.

First, participants were prepared using a 5-point calibration. They viewed nine fictional Facebook posts while their gaze was recorded. They were instructed to view the posts normally as if they had appeared on their feed. The stimulus consisted of three filler and six target posts simulating political microtargeting to varying degrees. Filler posts were similar across participants. Target posts were personalized to the individual's pre-questionnaire responses and varied in terms of (a) political fit (most vs. least favored political party), (b) issue fit (three most vs. least interesting topics), and (c) visual demographic targeting (visually reflecting the participant's demographic group vs. the generic topic). If participants indicated similar party preferences, the party was randomly chosen from the respective pool (see Table 1). The order of filler and

Table 1. Overview of presented political parties.

Party seen	Preferred party	Unpreferred party
The Greens: The Green Alternative	12%	16%
SPÖ: Social Democratic Party of Austria	40%	8%
NEOS: The New Austria and Liberal Forum	16%	8%
ÖVP: Austrian People's Party	20%	24%
FPÖ: Freedom Party of Austria	12%	44%

target posts was fixed to allow for a warm-up phase in the think-aloud exercise. The order within stimulus categories was randomized. Each post was displayed on an individual page and not time-restricted.

Second, individuals performed a think-aloud task by viewing their screen recordings from stimulus exposure, including their gaze visualization. Participants were instructed to voice any thoughts that occurred. The speed of the screen recordings was set to 25% to allow for thought articulation.

Third, semi-structured interviews complemented the think-aloud exercise. The study collected data regarding individuals' ad processing and attention, conceptual persuasion knowledge activation, affective responses, and evaluative processes. Before the end, the targeted nature of the posts was disclosed, and a description of political microtargeting was provided. Upon completion, participants were debriefed about the specific study purpose and the posts' artificiality.

2.3. Data Analysis

The audio files were transcribed using the MAXQDA AI-based automated transcription function and manually corrected. No other AI-based analysis tools were used. Data analysis was based on a qualitative content analysis (Mayring, 2022). In the first step, recurring themes were coded based on the interview guidelines (for the coding schema, see the OSF online appendix). In the second step, prominent cognitive cues and the respective coping patterns were identified inductively. The transcribed protocols describe the unit of analysis. Eye-tracking data was used to cue the think-aloud and semi-structured interviews but was not assessed quantitatively, as the study design did not allow for it. Specifically, each individual was presented with their own screen recordings, including a visualization of their gaze. By that, the gaze data was linked to each participant and to the think-aloud protocol and interviews. Accordingly, references to visual patterns stem from the think-aloud protocol and/or the semi-structured interviews. Furthermore, the think-aloud and interview data were analyzed in an integrative manner. The interviews intended to complement the think-aloud data in case individuals showed difficulties in carrying out the task. Therefore, we do not discern between insights from the think-aloud protocol and the semi-structured interviews.

3. Findings

3.1. Conceptual Persuasion Knowledge Activation

Regarding conceptual persuasion knowledge activation, similar patterns occurred across participants with little variation.

First, all participants recognized the advertising nature of the posts and the source. Primarily, ad awareness was achieved bottom-up, based on the posts' structure (i.e., slogans, tone), indicating tactical persuasion knowledge. Some identified the ads based on the source because they expected all party correspondence to be advertising. We did not observe top-down recognition processes; the "Sponsored—Financed by…"-disclosure played a non-significant role. A few participants mentioned the disclosure, but none referred to it as their means to identify the posts as advertisements. Some referred to the delivery context by assuming the advertising nature of the posts due to upcoming elections. Generally, most seemed aware of the persuasive intent. However, some ascribed the posts to informative rather than persuasive intent.

Second, none of the participants recognized the targeted nature of the ads, although some described the posts as personally relevant or addressing a topic of interest. Only a few revealed general tactical knowledge about political microtargeting. However, they did not apply their knowledge in the respective situation. When asked how they would evaluate whether the content was targeted, they exclusively referred to political fit—even after the description of political microtargeting was provided. The source information seemed immediately accessible to them, even through covert orienting (i.e., "attention directed to a location that is different from that on which the eyes are fixated"; Covert Attention, 2018). In sum, individuals do not seem competent to activate their targeting-specific conceptual persuasion knowledge and recognize microtargeting when an unfavored political party employs it.

3.2. Cognitive, Attitudinal, and Behavioral Outcomes

While the patterns for conceptual persuasion knowledge activation seem similar across participants, the cognitive, attitudinal, and behavioral outcomes differ significantly. In this regard, the data revealed five different coping patterns. These coping patterns can be distinguished based on the dominant first- and second-level cognitive processing cues. The dominance of a cue is evaluated based on its relevance in the coping process. Other cues may also be considered, though seemingly to a lesser extent. Our data revealed six cues individuals draw on for information regarding their coping responses. The cognitive cues and coping patterns do not represent a time- and context-consistent sociological typology but patterns of cognition and behavior that we identified within the current study context. An overview of the identified cues and how they pertain to the respective coping patterns are illustrated in Figure 1 and described in the following subsections.

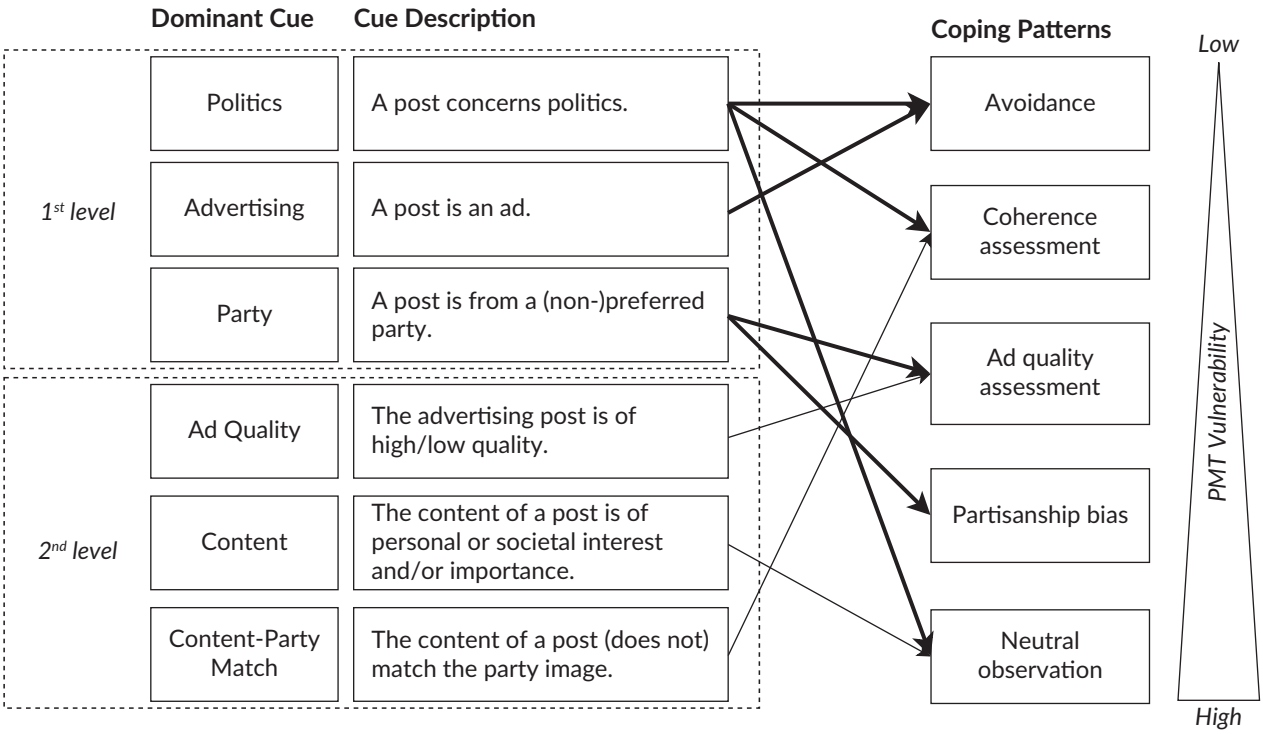

Figure 1. Overview of cognitive cues and how they pertain to different coping patterns. Notes: Bold arrows describe dominant cues at the first level, and regular arrows describe second-level cues; PMT = Political microtargeting.

3.2.1. Coping by Avoidance of All Things Political and/or Advertising

The dominant cues for individuals who engage in the avoidance pattern are either the politics or advertising cues. While both describe distinct cues, the underlying mechanisms seem similar: Recognizing the post's political or advertising nature prompts almost immediate cognitive and behavioral avoidance. The avoidance pattern may be distinguished based on the underlying rationale for individuals' avoidance behaviors. While some are generally skeptical regarding political communication or advertising (see quotes A1 and A2), others are not interested in politics and, thus, avoid political content anywhere (see quote B). Again, others avoid political content, specifically on social media, because they evaluate the environment as inappropriate (see quote C) or seek other affordances (e.g., entertainment; see quote D). Irrespective of the exact rationale, individuals who respond with avoidance seem least receptive to political microtargeting due to their almost automated visual and cognitive attention withdrawal. At most, these individuals react in terms of potential negative affect (i.e., anger), which is, however, not due to the microtargeted nature of the post but its general association with politics or advertising:

> A1 (44-year-old male, higher education): They're all liars. Okay. Really. I have something against politicians in general. Again and again, politicians say something and do something different. And they have an interest in things that are really of no interest to many people. So, they [are] just [after their] personal interests.

> A2 (54-year-old male, low education): If I see the ÖVP or SPÖ or the Greens or FPÖ or something else somewhere, I say "wipe wipe" so that it will be gone. But as I said, not just political parties; all advertising. It is so annoying. That's also one reason why I'm rarely on Facebook. I don't like when you go somewhere, and something yells at you. Yes, so then, "wipe." Then I'm really quick. I know some people say advertising is so great. But advertising annoys me, no matter what context it's in, but especially before elections, it's always a senseless time.

> B (58-year-old male, higher education): The first thought? I'm not very interested in politics. I see it more as a necessary evil. There has to be structure. So, I wouldn't actively look at these posts. Okay, maybe just before an election, so you can see what people want. However, what they promise and what they do are always two different things.

> C (25-year-old female, lower education): In politics, I don't think it should be the case that people get something through the algorithm, but that people have to seek the information, just as it was more or less before social media. So, for me, politics doesn't belong on social media.

> D (20-year-old male, intermediate education): I'll put it this way: If I really want to know something political, then I go directly to the homepage from any party. But if I'm just scrolling through feeds, I'm not like, "I want to see political things"; rather, I think to myself, "I want to see something interesting, funny—a variety of things."

3.2.2. Coping by Neutral Observation of Political Messages

The first-level dominant cue for the neutral observation pattern is the politics cue, which prompts interest and relevance perceptions. This pattern seems to correlate with a strong democratic attitude in that all ideas should be neutrally attended to. The politics cue prompts attention and cognitive engagement to (neutrally) evaluate the post's contents. On the second level, the content cue is dominant. Content perceived as catering to personal *or* societal interest prompts positive outcomes (i.e., attention, positive evaluations), whereas the opposite leads to adverse outcomes (i.e., attention withdrawal, negative evaluations). Individuals who engage in this coping pattern seem most receptive to political microtargeting, particularly at the low levels of political microtargeting-specific tactical persuasion knowledge observed in this study. Upon disclosure, these individuals did not mind the use of political microtargeting:

> A (29-year-old male, lower education): Respondent: I thought to myself, what will I say about this? Because you always add a little bit of your political attitude somewhere. That's just natural, yes. But I still try to be neutral if I see something that I evaluate as positive or neutral because I think it doesn't help if you include your political side.
>
> Interviewer: Does this attitude only apply to this situation here, or do you also do this at home when scrolling through your own social media?
>
> Respondent: I also try it at home because I think it's important to discuss things with friends in a social setting relatively neutral because, of course, you're never going to sit at a table where everyone votes for the same party or anything like that and that's why I think it's important to always remain neutral to a certain extent.
>
> B (48-year-old female, higher education): I look at it, and I'm really neutral. I look at it, then I think to myself, "Okay." I also listen to the news and look at the election slogans. I don't want to be biased and say, "Okay, I can't stand what they're doing." There's something good from everyone. Always.

3.2.3. Coping by Critically Assessing the Coherence Between Message and Sender

Similar to the neutral observation pattern, the dominant first-level cue for the critical assessment pattern is the politics cue, which elicits interest and overt visual and cognitive attention. Individuals who engage in this coping pattern reflect high (political) topic and agent knowledge based on their responses (though we did not assess it quantitatively). On the second level, individuals who engage in the critical assessment pattern focus on content–party match cues. If the message subject is perceived to match the party's image, the evaluations are positively skewed, whereas a mismatch contributes to skepticism. Content cues are also considered but are of lower order. Party preferences are straightforward and may increase skepticism toward a perceived topic–party mismatch from a non-preferred party, although in a non-dominant way. Conceptual persuasion knowledge, in the form of advertising awareness, does not prompt negative responses. Individuals who engage in this coping pattern do not seem receptive to political microtargeting but general political advertising upon perceived fit between the message and the sender:

> A (75-year-old male, lower education): That is also not so important to me. Generally speaking, there is nothing negative to say about the topic as it is described here. Because reducing bureaucracy is always

> an issue in Austria. But I'm not sure about this. I don't hear this from the party, and I don't read it either. So I'm a bit surprised that this is happening. It would be nice if it suddenly became part of the FPÖ's agenda.

3.2.4. Biased Coping Based on Partisanship

The party cue is dominant for individuals who cope with political microtargeting based on their partisanship. Hence, political communication by a preferred party is attended to with greater attention, less skepticism, positive affect, and positive evaluations. Communication by a non-preferred political party is avoided, and when it is attended to, negative evaluative outcomes are prompted. Moreover, perceived political fit leads to biased processing of the contents. For example, when topics were of low interest (according to the pre-questionnaire) but addressed by a preferred political party, the topic was ascribed higher relevance during stimulus exposure (see quote A). In contrast, when low-interest topics were addressed by a non-preferred political party, participants highlighted the low importance of the topic (see quote C). When the topic was of high interest but communicated from a non-preferred political party, participants expressed skepticism regarding the veracity of the statement and highlighted the incongruence between the party and the topic (see quote B) or even revealed a false recall associating the ad with their preferred political party. Hence, individuals who rely on their partisanship for coping with political advertising may be receptive to microtargeting by a preferred political party as it seems to strengthen existing ties (see Lavigne, 2021). However, political microtargeting by a non-preferred political party may not be correctly recalled and may even backlash due to the perceived insincerity:

> A (49-year-old female, intermediate education), responding to a post with low issue but high political fit: Then, the ÖVP again. Yes, it is the family party. It stands for family. It is the conservative party. So, it actually stands for the classic family. Family is, of course, very important. I think that too.

> B (76-year-old female, intermediate education), responding to a high issue but low party fit: Yes, I don't believe them at all. You can clearly see my political orientation right there. Those are great slogans, but I don't think they'll ever do that.

> C (49-year-old female, intermediate education), responding to a low issue and low party fit: So, the Greens. They are in government at the moment. "For culture." Yes, they are campaigning for art and culture. It's all well and good, but I would say that other issues are actually more important than art and culture at the moment.

3.2.5. Coping by Assessing the Quality of the Ad

Similarly, individuals who cope with political microtargeting by assessing the quality of the ad focus on the party cue first. Hence, such individuals will not be swayed by a non-preferred party. However, on the second level, quality cues are consulted to evaluate the advertising. Individuals' attention is focused on the components of the post (i.e., picture, slogan, logos), which are evaluated individually and in composition. The attentional focus lies on the visuals rather than the underlying message (see quote A). When visuals are perceived as unaesthetic or not meaningful, the post's message is hardly attended. Higher perceived ad quality relates to positive affect and situational attitudes toward the post, even when the ad stems from a

non-preferred political party (see quote B). Lower perceived ad quality reflects negative situational attitudes, even toward preferred political parties (see quote C). Individuals who respond to political microtargeting by assessing the formal quality and composition of the ad do not seem receptive to political microtargeting as the (personalized) message is hardly attended to. However, individuals who engaged in this coping pattern showed the strongest negative responses toward identity-based targeting, which was evaluated as "not meaningful" and irritating (see quote B):

> A (61-year-old female, higher education): And what I also noticed, by the way, is that I didn't read the text for any of the pictures above. I only ever looked at the picture. Always.
>
> B (61-year-old female, higher education): Yes, first of all, I think this face was far too big on it. It's overwhelming. But it's much more likable, somehow. So, you kind of halfway know what it's about. But that's another old lady. I know, it's probably a big hit with all the advertising agencies, I guess. So elderly women—I'm allowed to say that, I'm older myself. I'm not being discriminatory. I just think about the advertising strategy. If it says, "For what matters most. For families," then I'm photographing a family and not an old woman. Apart from the fact that I would never vote for the party anyway, because they destroy everything that makes sense in terms of social strata in this country. It's terrible. Yes, but at least the woman looks really likable, I have to say. But apart from that, I find it odd. I want to see a family when it is about family.
>
> C (61-year-old female, higher education): No, I think it's terribly done. However, I would like to highlight I usually vote for the SPÖ. I like the party very much, but the advertising story is terrible.

4. Discussion

Scholars and policymakers have argued the beneficial and detrimental democratic potentials of political microtargeting—potentials that are believed to be further accelerated by the continued advances in AI (Simchon et al., 2024). Whether political microtargeting is of any (positive or negative) significance for democratic societies largely depends on how citizens cope with microtargeted messages. While preceding studies aimed to illuminate this avenue quantitatively, this study used an innovative methodology to zoom in and provide an in-depth understanding of citizens' different coping patterns with political microtargeting to evaluate their vulnerability from a qualitative perspective.

The results provide an overview of available coping strategies that follow different cue-based rationales. Several findings are noteworthy. Most individuals seemed to know little about political microtargeting. Even when they showed some targeting-specific conceptual persuasion knowledge (objective or subjective), they did not activate it in response to the stimuli. This contrasts with preceding research that suggests that most individuals have some baseline knowledge (Minihold et al., 2024), which they may activate during a persuasion episode (Binder et al., 2022; Stubenvoll et al., 2022). This divergence might be due to the inherent challenges of capturing these variables with quizzes and self-reports. Open-ended questions for dispositional knowledge assessment and implicit approaches for measuring activation (see Hoek et al., 2021; S. J. Kim & Hancock, 2017) may be helpful.

Furthermore, none of the illustrated coping patterns represent the ideal coping behavior of informed citizens. However, only individuals who engaged in coping via neutral observation seem potentially vulnerable to political microtargeting. Others guard themselves against the persuasive attempt using critical coping (i.e., skepticism) and/or attention withdrawal, although partially in ways that seem biased by their partisanship. For some, this may question the necessity for targeting-specific persuasion knowledge. Indeed, such information (access) might not be vital, particularly considering how most individuals felt indifferent and neutral about political microtargeting upon disclosure. For individuals who engage in neutral observation, however, targeting-specific persuasion knowledge might be crucial. Due to their seemingly strong democratic attitude, knowledge about the risks of political microtargeting (e.g., filter bubbles, information asymmetries, disinformation; Zuiderveen Borgesius et al., 2018) may increase their skepticism and lower their receptiveness. Again, some may argue that few voters in the electorate respond by neutrally observing a political message. However, based on the political involvement reflected in their response patterns, these individuals seem like reliable voters, and past elections have highlighted the importance that a few votes can make. Furthermore, targeting-specific persuasion knowledge may also prove valuable for adolescents who may not be guarded by profound political knowledge, strong partisanship, and/or general skepticism toward advertising as they even tend toward more positive ad attitudes compared to past generations (van der Goot et al., 2018). However, these assumptions need distinct empirical testing in the future.

This study has limitations. First, we excluded polarizing topics from the posts (e.g., war, climate change, immigration). However, such issues may elicit stronger affective responses and negative evaluations. Research in this regard may prove valuable. Second, we cannot claim that the identified coping patterns are finite and time- and context-consistent. For example, our stimuli did not include comments. However, participants frequently attended the number of likes, and some voiced interest in the comments. Peer responses may describe another cue supporting citizens' sense- and opinion-making and should be investigated. Third, findings regarding the coping pattern "ad quality assessment" should be handled carefully because they may be caused by response bias, as some participants might have expected a marketing study purpose. Also, despite our best efforts, social desirability bias cannot be ruled out, as it even plays a role in quantitative research (Nederhof, 1985). Moreover, for identity-based targeting, we focused solely on age and gender. Other variables (e.g., race, ethnicity, religion) may prompt stronger reactions and require further investigation. Moreover, qualitative research cannot make inferential claims about how these coping patterns may manifest on a population level. For that, quantitative approaches like, for example, latent profile analysis are necessary (e.g., Minihold et al., 2024). Lastly, the study was conducted in Austria, where political microtargeting is strictly regulated. Regulation perceptions may impact participants' acceptance of political microtargeting (Haley, 2020).

5. Conclusion

This study assessed citizens' vulnerability to political microtargeting using an innovative methodology. The gaze-cued retrospective think-aloud design allowed for unique insights by inductively investigating and illustrating citizens' available coping patterns. The results give grounds for hope and concern: Generally, citizens seem capable of critically coping with political microtargeting even when unaware of their microtargeted nature. Instead, some rely on their general skepticism toward political messages and advertising or their political knowledge to assess the veracity and sincerity of a persuasive message.

However, others only guard themselves effectively against political microtargeting from non-preferred parties or seem generally responsive and, thus, more vulnerable. While educational interventions that highlight the democratic risks of political microtargeting might be a promising remedy for the latter, individuals who are primarily guided by their partisanship may be harder to reach. For these, stricter legal frameworks may be the only effective measure. Continued research is needed to determine the share of potentially vulnerable citizens so that counteractive measures can be proportionate.

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Conflict of Interests

The authors declare no conflict of interests.

Data Availability

An online appendix for this article is available at https://osf.io/fykaq/?view_only=6de123c1570447f1b3645716864ba591

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ARTICLE

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Accepting Exclusion: Examining the (Un)Intended Consequences of Data-Driven Campaigns

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Abstract

Using citizens' data not only enables precise targeting of campaign messages online, but also the deliberate exclusion of certain groups of citizens. This study asks (a) to what extent have citizens been excluded from political (online) ads during the Dutch 2021 and 2023 election campaigns and (b) how acceptable citizens find the practice of exclusion. To answer these questions, we use data from the Meta Ad Targeting dataset to investigate any employed exclusion criteria by parties and rely on survey data collected during the 2023 Dutch general election to learn about citizens' opinions. Our study reveals that political parties across the spectrum allocated less budget to targeting and excluding citizens in 2023 compared to 2021. Predominantly, exclusion is based on age, gender, and place of residence, with criteria such as political views, migration background, and religious beliefs being relatively uncommon. Despite citizens considering all forms of exclusion unacceptable, they view exclusion based on political views as the most tolerable. Moreover, individuals leaning towards the political right exhibit greater acceptance of exclusion, particularly based on migration background. In scrutinizing the extent of citizen exclusion from political campaign messaging and citizens' perceptions, we contribute to the discourse on the unintended consequences of data-driven campaigning.

Keywords

citizens; data-driven campaign; exclusion; information asymmetry; meta ad targeting dataset

1. Introduction

Engaging with content of your favourite football team or sharing your dietary preferences on Facebook should not exclude you from seeing certain political ads, but oddly enough, it can in the world of data-driven campaigning (DDC) strategies (Van Cauwenberg, 2023). DDC is now commonplace in nearly all modern election campaigns and appears in various forms (Dommett et al., 2024; Votta, 2024). For example, tailoring political messages and advertisements to groups of people or individuals who meet certain criteria that have been determined from data is a common practice. DDC tactics typically align with common campaign objectives: persuading, mobilizing targeted groups, or reinforcing their position on an issue (Lavigne, 2021). When campaigns decide to target citizens with specific messages it also implies that others are being excluded from seeing these messages by consequence. However, not only does DDC allow political parties to choose who they want to reach, it also explicitly allows them to exclude certain groups of people, for example, those considered unlikely to be persuaded or mobilized. These decisions can be based on characteristics like age, gender, location, (inferred) political affiliation or ethnic background, online behaviour, or personal interests (Speicher et al., 2018; Van Cauwenberg, 2023). Thus, intentions behind the use of DDC are not just about optimizing message delivery to particular audiences but also about strategically excluding certain demographics to maximize campaign efficiency.

This dual capability of DDC—implicit and explicit exclusion—highlights the importance of understanding the motivations behind these strategies. This aspect of deliberately withholding specific political content based on data points has not been studied in the context of DDC yet, although the potential of discriminatory targeting practices on Meta's Facebook has been recognized (Speicher et al., 2018). Despite this, digital political advertising has been barely regulated when compared to political campaigning via traditional media channels (Helberger et al., 2021), and some EU-level regulations have emerged in recent years (van Drunen et al., 2022). The EU has recognized the potential negative impact of intransparent advertising and now through the Digital Services Act (DSA) mandates very large online platforms to maintain ad libraries so that citizens, researchers, and broader civil society can see which kinds of advertisements are targeted at whom (van Drunen et al., 2022). The EU also recently adopted the transparency and targeting of political advertising (TTPA) legislation which further regulates how parties and candidates are allowed to use targeting during election campaigns (van Drunen et al., 2022). This legislation includes provisions that aim to increase transparency in ad targeting practices and ensure that political advertisements disclose relevant information about their targeting criteria. Additionally, it seeks to implement a European ad repository that would aim to ensure transparency across platforms in a standardized way.

These regulations are essential frameworks aimed at safeguarding election campaigns (Gibson, Dommett, et al., 2024b), which are crucial moments for citizen engagement in politics. Here, political actors use a variety of methods to inform, persuade, and direct citizens' attention towards political problems, including political online advertisements (Vliegenthart & Kruikemeier, 2017). The exclusion of certain citizens from these advertisements may save political parties campaigning resources in terms of personnel and money (Dommett et al., 2024). However, this approach may be harmful to citizens due to unequal distribution of political information (Bayer, 2020) and influence citizens because the frequency of exposure to political advertisements affects their party preferences (Chu et al., 2024). Being deliberately excluded from receiving political ads makes it arguably harder for citizens to grasp the wealth of political issues or their relative importance. Information inequality could result in different groups of citizens having increasingly varying

political outlooks and might even pose challenges in reaching a consensus (Mazarr et al., 2019). While it is undisputed that there are more ways to become politically informed than via political ads on social media, disengaged citizens tend to learn about election campaigns as a by-product of spending time on social media even though they are not seeking political information there (Morris & Morris, 2013). This makes access to political content on social media important. Some level of information inequality among citizens has always existed, but the difference lies in the scale and precision with which DDC enables restricted access to political online ads. Regarding scale, DDC can leverage extensive (inferred) data points by citizens to customize the political information they see. Additionally, this data is often collected without citizens' consent. Regarding precision, advertisements can be adapted and targeted based on real-time feedback, for example by monitoring clicks (Dommett et al., 2023). While traditional media can also evaluate and adapt its content, it tends to be slower and more costly by comparison. The full extent of information asymmetries and their real-life implications remain to be fully determined. However, tech-enhanced exclusion of citizens seems to be incentivized by major platforms like Meta (Votta, 2024).

This presents a threefold problem: Firstly, while parties decide the exclusion patterns for their targeted ads, they shift some power to major corporations by using their (social media) platforms and their algorithms to display information (Klinger et al., 2023; Votta, 2024). Second, while certain discriminatory practices have been banned (e.g., targeting ethnic backgrounds; see Speicher et al., 2018), some inclusion or exclusion proxies can circumvent these bans. For example, Speicher et al. (2018, p. 8) report that targeting white individuals can be achieved by focusing on inferred interests in hiking or conservative political views, while targeting Asians on Facebook can be based on, for example, eating habits. Thirdly, insights into citizens' awareness of targeting in political advertising are emerging (Minihold et al., 2024) but opinions on being deliberately excluded remain largely unexplored. To comprehensively grasp this phenomenon, we require additional information regarding its prevalence across the political spectrum. Equally important is understanding citizens' perspectives on this issue, as they contribute data that determines their inclusion or exclusion from political information. This study thus combines insights from the Meta Ad Targeting dataset with a survey to examine (a) exclusion strategies by political parties during the Dutch 2021 and 2023 election campaigns and (b) how citizens perceive the usage of different exclusion criteria. Studying the prevalence of citizen exclusion from political information and their perceptions not only adds to the current discourse, but also sheds light on the implications of DDC. Ultimately, the technological infrastructures in which DDC is embedded might make it more difficult for citizens to access information, thereby affecting how they can participate in politics (Odzuck & Günther, 2022).

2. More Than the Flipside of Targeting

Scholars have recently shown significant interest in the potential of DDC, defined as a practice to "access and analyse voter and/or campaign data to generate insights into the campaign's target audience(s) and/or to optimize campaign interventions" (Dommett et al., 2023, p. 2). While categorizing the electorate based on party support likelihood is a longstanding campaign practice (Baldwin-Philippi, 2019), with campaign communication largely shifting online, political parties are afforded new avenues for (dis-)engagement due to a wide array of data points. Political parties can access citizens' self-reported information such as demographics, online interests, and behaviours. Moreover, they can leverage this data to infer additional online interests or identify look-alike audiences (Ghosh et al., 2019). While there are some potential upsides to tailoring messages to particular groups in order to involve them in the political process, data-driven targeting techniques tend to be perceived as posing a range of threats to citizens and society, such as

misleading voters about the true priorities of political parties (Zuiderveen Borgesius et al., 2018). However, DDC practices may not always exhibit the sophistication commonly feared due to limited campaigning resources (Dommett et al., 2024). Yet, data-driven targeting and exclusion from political information occur worldwide (Votta et al., 2024). As the technological landscape makes pinpointing certain individuals easier, avoiding non-persuadable voters could be a campaign optimization strategy (Gorton, 2016). We refer to this as implicit exclusion from political information online as certain people are not being selected to view certain political content, while explicit exclusion involves deliberately withholding information from specific individuals based on predefined criteria or characteristics and is the main focus of this study.

In the scenario where Party A targets individuals interested in couscous for their campaign message, implicit exclusion occurs for those who have not been identified with this interest. This strategy risks overlooking individuals who might share the interest but have not expressed it online in a manner captured by social media algorithms. Moreover, research indicates that inferred criteria are often inaccurate in classifying users (Sabir et al., 2022). In contrast, Party B explicitly excludes people interested in couscous from seeing their campaign messages. Thus, those explicitly excluded have no opportunity to view Party B's campaign content due to their interest in couscous. However, individuals not explicitly excluded still have the chance to see the political content. Figure 1 illustrates the contrast between implicit and explicit exclusion by political parties online.

While the example of interest in couscous might seem trivial, this example illustrates how technologically-enhanced exclusion practices can manifest on online platforms. For instance, as revealed by Belgian newspaper *Apache*, a Belgian far-right party, Vlaams Belang, employed couscous as a criterion for excluding certain individuals from their campaign messages, in addition to other interests (Van Cauwenberg, 2023). While their rationale remains undisclosed, specific interests serve as workarounds when precise targeting is not possible (Speicher et al., 2018). For example, Meta does not support exclusion based on migration background or religious beliefs (as of the year 2020), but platforms like Facebook offer alternative paths to achieve similar outcomes. As political campaigning increasingly shifts online, particularly relying on the technological infrastructure of social media giants like Meta, it is crucial to scrutinize the implications of exclusion facilitated by these platforms. They wield significant influence over the accessibility of data for monitoring, evaluating, and disseminating targeted political communication (Klinger et al., 2023; Roemmele & Gibson, 2020).

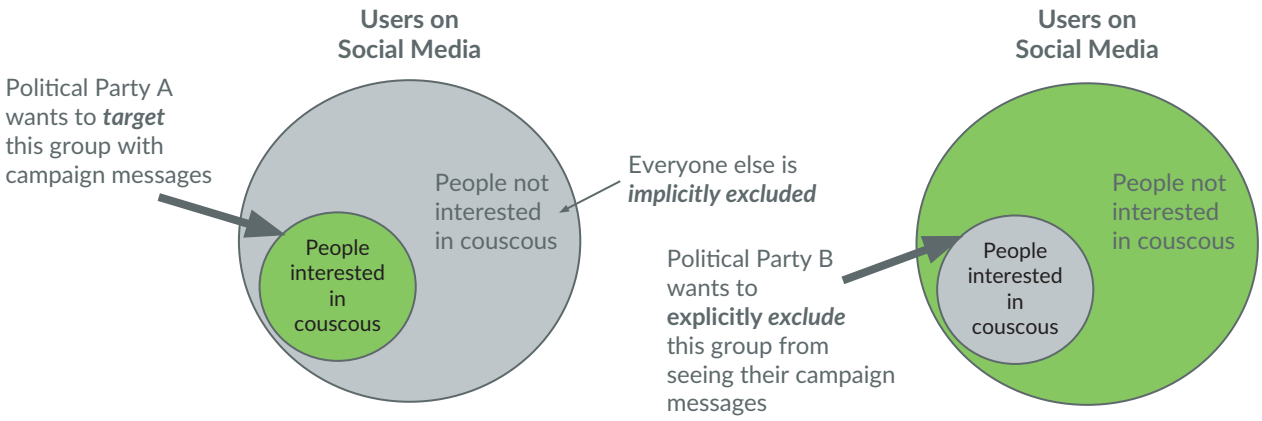

Figure 1. Implicit and Explicit Exclusion.

3. Data-Driven Exclusion and Political Orientation

Political parties decide what to post, how often to do so, and who their target audience on social media platforms should be. They are informational gatekeepers online, separate from traditional actors like news media (Roemmele & Gibson, 2020, p. 598; Stromer-Galley, 2019). For citizens, some degree of gatekeeping is important to avoid information overload. However, gatekeeping information can influence campaigns, public and political attitudes, and voting behaviour (see Soroka, 2012). Using the technological infrastructure of Meta, such as their exclusion criteria or algorithms, parties can opt to exclude citizens deemed less valuable for a political campaign (what is known as "political redlining"; Gorton, 2016; Howard, 2005). This strategy highlights the "perceived" electorate in a digital context (Hersh, 2015). Some citizens might be perceived as less "valuable" because they are less likely to vote and others are harder to classify or collect data about and are therefore more systematically excluded—or "redlined." By analyzing who political advertisers choose to target or exclude, we gain insight into how they perceive and segment the electorate and whether they view certain groups as more susceptible to their messaging. This would incentivize political parties to focus their resources on persuadable or mobilizable citizens, or target opponents to de-motivate or demobilize them. In essence, political parties engage in strategic activities that serve their campaign goals (Stromer-Galley, 2019). For example, segmentation enables parties to conduct what they may see as more cost-effective campaigns, akin to targeting specific citizens (Zuiderveen Borgesius et al., 2018). Additionally, excluding certain citizens from seeing potentially offensive messages may serve as a strategy to avoid backlash, particularly if the campaign message tends to be uncivil (Votta, Noroozian, et al., 2023).

The decision of whom to exclude requires parties to depend on a measure of "relevance." Meta assists campaigners in identifying relevant audiences and even provides financial incentives for engaging with them. For instance, a study on targeted ads on Meta's Facebook and Instagram revealed that individuals with lower education levels, females, and those under 24 years old are more costly for Dutch political parties to reach compared to other segments (Votta, 2024). As a result, these groups are likely to receive less political information via political ads on Meta as they are implicitly excluded.

While political redlining may be present among all political parties, parties with a pronounced out-group/in-group rhetoric might be particularly inclined to use technological infrastructure to further distinguish between citizens. This "us" vs "them" rhetoric is especially present among populist radical right parties who want to exclude non-native groups based on their cultural background (Mudde, 2007; Mudde & Kaltwasser, 2013). Next to this symbolic exclusion, Filc (2009) distinguishes between material and political forms of exclusion with the latter being especially relevant for our study. The political dimension of exclusion, as articulated by Dahl (1971) and later explored by Mudde and Kaltwasser (2013, p. 161), revolves around two key dimensions of democracy: "Political exclusion means that specific groups are prevented from participating (fully) in the democratic system and they are consciously not represented in the arena of public contestation." This suggests that certain groups are deliberately left out of public discussions and decision-making processes. To accomplish this in DDC, certain citizens are excluded from receiving political advertisements. Given the lack of insights into who excludes citizens and how, we ask:

> RQ1: How and by whom have citizens been excluded by political parties during the Dutch 2021 and 2023 election campaigns from political advertisements on Meta?

4. Information Asymmetry and Accepting Exclusion

Political parties serve an important function as information distributors, particularly during election campaigns. While political parties in the Netherlands use a wide range of traditional media for campaigning, such as posters and flyers, online campaigning with ads has grown in popularity in recent years due to low costs and the ability to reach large segments of the audience quickly through direct communication (Vliegenthart & Kruikemeier, 2017). Expanding on Dahl's (1971) insights into the significance of political campaigns for political participation and deliberation among citizens, Gibson, Dommett, et al. (2024b) outline three implications of political micro-targeting, a distinct manifestation of DDC, for democracy. Firstly, targeted campaign communication should promote diverse opinions and avoid false claims to ensure fair deliberation and equal participation. Secondly, it should mobilize underrepresented groups to vote and avoid discouraging participation. Lastly, targeting rules should be perceived as fair by citizens to maintain trust in the political process. Explicitly excluding citizens from receiving political content contradicts the aim of discouraging participation, as it prevents the consideration of all interests (Dahl, 1971). When a political party excludes certain citizens from receiving political information, those individuals have fewer opportunities to familiarize themselves with specific issues promoted by that party. Consequently, they may struggle to express discontent with a particular political message or issue if they are not exposed to it.

Online informational inequalities may be amplified when election campaigns occur on platforms that combine political content with personal voter data to decide where political messages are disseminated (Klinger et al., 2023, p. 111). This information asymmetry describes that some voters receive certain information in their online feed while others do not. This may not only impact open and equal communication, as not everyone is exposed to certain information on online platforms (Odzuck & Günther, 2022), but may also limit citizens' choices regarding whether or not to engage with specific political online content. This "paternalistic distinction between citizens" (Bayer, 2020, p. 10) may affect their opportunities for political participation, as some citizens are included while others are excluded. Furthermore, citizens may overestimate their understanding of DDC (Minihold et al., 2024), potentially blinding them to implications like the exclusion of individuals from seeing certain content. This limits the likelihood of citizens taking action to mitigate the implications of online information asymmetry. However, participating on specific social media platforms involves self-selection. This means that while individuals may be excluded from certain information on these platforms, they are not necessarily cut off from political information available elsewhere.

While studies examining citizens' perceptions of DDC strategies are emerging, there remains a gap in research concerning their attitudes towards data-driven exclusion. Understanding citizen perceptions is crucial, as targeting-aware individuals who hold strongly negative views toward DDC may even avoid political advertisements (Minihold et al., 2024). However, citizens seem to be more accepting of general targeting rather than being individually targeted, especially in nations with robust data protection regulations (Vliegenthart et al., 2024). Moreover, they are more positive towards advertisements from their preferred political parties, potentially reinforcing their partisan affiliations (Lavigne, 2021). Motivated reasoning suggests that partisan bias can outweigh negative attitudes (e.g., towards DDC; see Vliegenthart et al., 2024) in order to uphold party allegiance. This rationale may also extend to accepting DDC exclusion, especially if it is implemented by a favoured political party. We thus ask:

RQ2: How do citizens perceive the usage of different types of exclusion criteria by their favoured party on Meta?

Acceptance of various inequalities, particularly in terms of class, gender, sexuality, and immigration/ethnicity, is associated with a right-wing orientation, particularly evident in the Netherlands and Croatia (Lindqvist, 2024). However, the degree of acceptance of informational inequality among individuals with differing political orientations remains ambiguous. Nevertheless, citizens leaning towards the right tend to exhibit greater tolerance towards various political microtargeting strategies (Gibson, Bon, & Dommett, 2024a), which may extend to the exclusion of certain citizens based on specific characteristics. We hypothesize that:

H1: Individuals who lean towards right-wing ideologies are more likely to accept exclusion in political advertisements by their preferred political party.

5. Method

5.1. Sample

We relied on the Meta Ad Targeting dataset from 2021 and 2023 and on an online survey collected before the Dutch 2023 general election (Meta, 2022a). The Meta Ad Targeting dataset is an enriched copy of Meta ad library data, updated monthly, and includes additional variables specific to targeting and exclusion criteria employed by political advertisers. For a detailed description of these additional variables, consult the official documentation (Meta, 2022b).

We collected 25,442 political ads one month before election day that ran on both or either Facebook, 6.6m users in 2024 or a third of the Dutch population (Statista, n.d.) and Instagram (4.7m users) from 478 official accounts affiliated with one of a total of 18 Dutch political parties in our sample. Which Facebook and Instagram account belongs to which political party has been hand-coded using previous data collected during the 2021 parliamentary election (Dutch Election Observatory, n.d.) as well as in collaboration with Who Targets Me (https://whotargets.me/en). Collectively, we can thus estimate that 4 million euros was spent in both the Dutch 2021 (2.53 million) and 2023 (1.42 million) election campaigns. The ads placed by political parties were seen at least 481 million times (i.e., here we use the lower bound of impressions), meaning that each resident in the Netherlands saw an ad 27 times on average, though in practice a smaller fraction is likely to have seen a majority of these ads.

The survey was conducted in the Netherlands by I&O Research and approved by the Ethics Review Board at Wageningen University and Research (filed as 2023-047). This dataset is from a larger research project using a seven-wave panel survey study. We analyze data from a single wave. The data was collected in mid-October 2024. After listwise deletion of non-response variables, the final sample ($N = 1379$) consists of 44.7% female respondents. On average the respondents were between 50 and 64 years old, 28.9% had lower education, 31.8% had middle education, and 39.3% had higher education; the sample is at large representative of the Dutch population in regard to gender, age (18+), regions, and education.

6. Measures

This study uses two data sources: The Meta Ad Targeting dataset and a survey study. Detailed information about both datasets, as well as detailed measures, can be found in the Supplementary File.

6.1. Meta Ad Targeting Dataset

6.1.1. Dependent Variables

The Meta Ad Targeting dataset includes seven categories: age, gender, and languages can only be used for targeting while custom audiences, lookalike audiences, place of residence, and detailed criteria can be used for both targeting and exclusion. The "detailed" criteria (as Meta calls these criteria in their ad manager) encompass a diverse range of inferred-interest categories, online behaviours, educational levels, and relationship statuses, and they can be found listed in the "include" and "exclude" variables in the Meta Ad Targeting dataset (Meta, 2022a). The criteria listed under the variable "include" are audiences that were specifically selected and targeted (this is what we refer to as "implicit exclusion," as those that are not targeted are consequently excluded); the criteria listed under "exclude" are those that were deliberately left out, or what we refer to as "explicit exclusion" throughout the article. These variables include potentially sensitive criteria such as individuals interested in "Jesus," indicating religious viewpoints, and past location data, like individuals who previously lived in Morocco, suggesting a Moroccan migration background. To identify these "proxies" (Speicher et al., 2018) for sensitive targeting criteria, we analyzed all 1527 detailed criteria used during the 2021 and 2023 election campaigns and manually categorized them based on their likely intent. We developed a codebook (see Supplementary File) focusing on five items asked in our survey, with adaptations based on coding observations. Categories included general interest in politics (without revealing political viewpoints), other demographics beyond age, gender, or location, and a broader "other" category. Initially, two authors coded the top 200 criteria independently with a satisfactory intercoder reliability of 0.83 (Krippendorff's Alpha). Disagreements in codes were resolved, and the remaining 1327 criteria were coded collaboratively, which involved going over the list of targeting and exclusion criteria and annotating them together, ensuring consensus. Our final analyses use the categories age, gender, and place of residence from the Meta Ad Targeting dataset and the manually coded proxies for migration background, political viewpoints, and religious beliefs based on Meta's "detailed" targeting and exclusion criteria.

Since the Meta Ad Targeting dataset only offers spending within broad boundaries (e.g., 0 to 99 euros spent on an individual ad), we calculate the median value between each spending pair. To determine the share of the total budget allocated to exclusion criteria for each party (as well as overall), we divide the median spending by the total spending. An ad is considered to implicitly exclude citizens if it employs at least one targeting criterion beyond the default demographics, which encompass all adult (18+) citizens, regardless of gender, and from every region of the Netherlands. Conversely, an ad is classified as explicitly excluding if it uses any exclusion criteria.

6.2. National Survey

6.2.1. Dependent Variable

To measure citizens' acceptability of exclusion, we employed a battery of five items, similar to those used by Kozyreva et al. (2021) and Dommett et al. (2022). Participants were asked to rate the acceptability of their preferred political party excluding other citizens based on their (a) age and gender, (b) place of residence, (c) migration background, (d) political views, and (e) religious beliefs from political messages and advertisements online on a 7-point Likert scale ranging from (1 = *totally unacceptable* to 7 = *totally acceptable*). Opting for five exclusion categories allows us to cover a spectrum from highly sensitive to less sensitive information, encompassing data likely to be either self-reported or inferred. The items form a reliable scale (Cronbach's Alpha = 0.91; $M = 2.30$; $SD = 1.45$). Furthermore, we treated each exclusion criterion as a separate outcome variable to be predicted.

6.2.2. Independent Variable

To measure the political orientation of respondents, we asked how they would place themselves on a scale from 1 (*left-leaning*) to 11 (*right-leaning*; $M = 3.34$; $SD = 2.77$).

6.2.3. Controls

We controlled for the respondents' age, gender, education, and trust in the government, media, parliament, and democracy (trust index: $M = 4.04$, $SD = 1.32$, Cronbach's Alpha = 0.86).

7. Results

7.1. Who Excludes and How

We first examine differences in the allocation of budget for the implicit and explicit exclusion of citizens by political parties during the Dutch 2021 and 2023 election campaigns on Meta platforms (Figure 2). Notably, from 2021 to 2023, there is a substantial decline in budget allocation towards age and place of residence, with percentages dropping from 37.3% to 31.3% and 55.8% to 35.9%, respectively. This suggests a decreasing focus on these demographics over time. More detailed targeting criteria such as political viewpoints (e.g., interests in veganism), migration background (e.g., Surinam), and religious beliefs (e.g., Halal) are comparatively rare. For more details on what exact targeting criteria political parties were using, the reader is encouraged to visit the election dashboard created by one of the authors (Votta, Hofman, et al., 2023).

Figure 3 presents the percentage of total party budgets spent on implicit and explicit exclusion from political advertisements on Meta by various Dutch political parties during the 2021 and 2023 elections. The parties are arranged from left to right ideologically. For both election years, the graph highlights significant variances in budget allocation towards exclusion strategies across different categories. Notably, the data shows that parties across the political spectrum are focusing heavily on particular age groups and places of residence (e.g., postal codes or one of the Dutch provinces). However, if we look beyond those five exclusion categories that align with the survey data, we see that exclusion based on custom audiences and lookalike audiences is also fairly

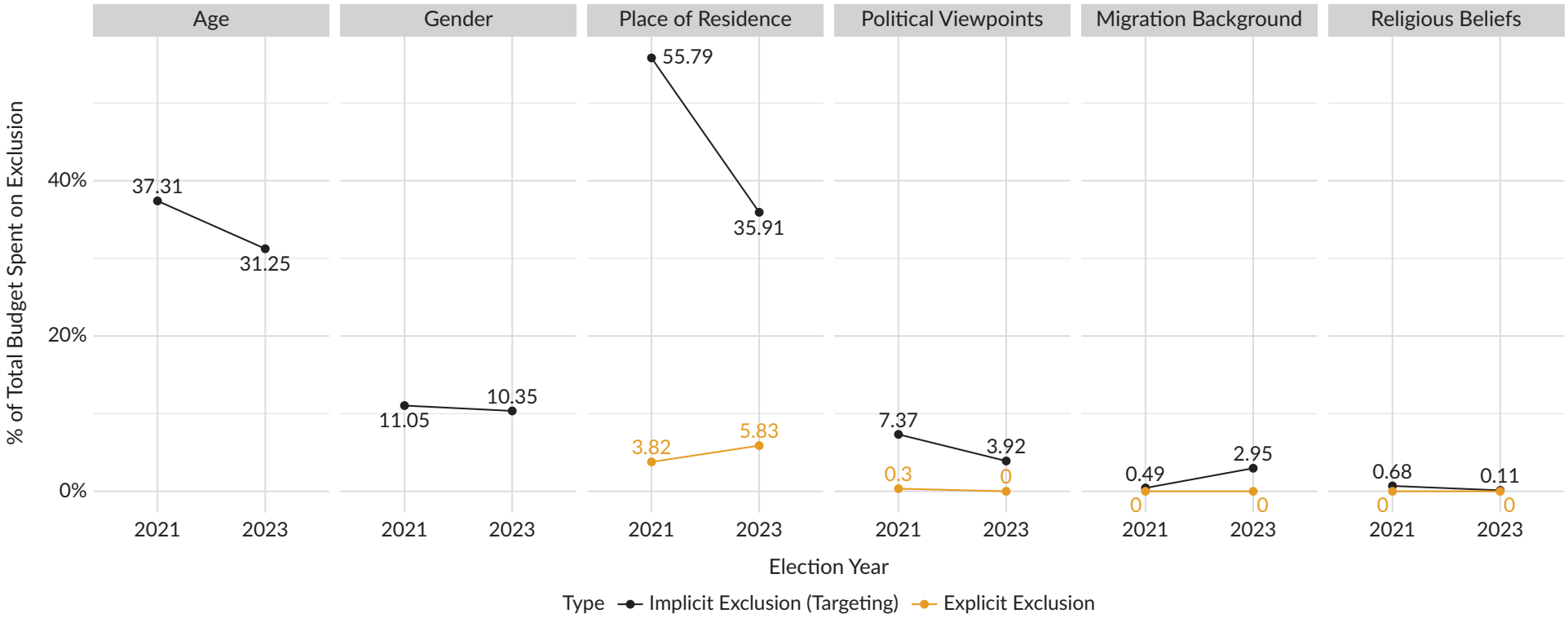

Figure 2. Election budgets spent on exclusion strategies. Notes: Age and gender can only be targeted directly by choosing specific age groups or genders (or none); there is no option to explicitly exclude based on the given age and gender categories on Meta and that is why there are no explicit exclusion lines for either age or gender in the graph.

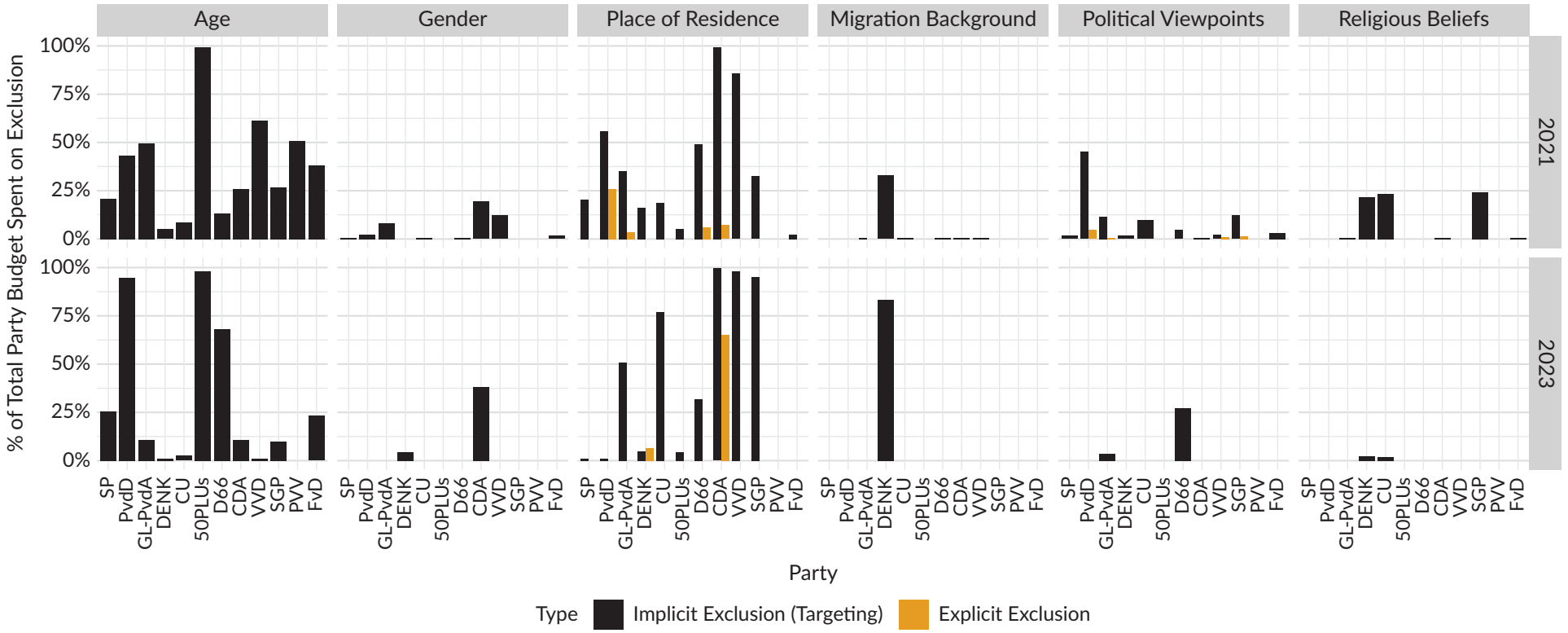

Figure 3. Budgets spent on exclusion strategies per party. Notes: Age and gender can only be targeted directly by choosing specific age groups or genders (or none); there is no option to explicitly exclude based on the given age and gender categories on Meta and that is why there are no explicit exclusion bars for either age or gender in the graph.

common (up to 32% of total budgets; see Supplementary File, Figure C2). Custom and lookalike audiences can be seen as more sophisticated targeting methods that are not possible to use via traditional targeting methods. Custom audiences include lists of information such as phone numbers, or e-mail addresses which can be matched with the Meta user base in order to find these particular individuals on the platform to target or exclude them from political messages. Lookalike audiences are algorithms employed by Meta to find users with similar characteristics as the provided custom audiences to target or exclude them (Bossetta, 2018).

7.2. Who Accepts Exclusion

Next, we examine the survey data collected during the 2023 Dutch election to examine who is more accepting of excluding specific demographic groups from political advertisements. The distribution shapes and central tendencies in Figure 4 highlight the relative convergence of social acceptability across various exclusion categories. While all exclusion is seen as relatively unacceptable, there are some important differences to highlight.

For instance, exclusion based on migration background is largely viewed as unacceptable, reflected in the highest disapproval at 80.1% ($M = 2.14$). In contrast, political views, while still generally viewed unfavourably for exclusion, evoke a less intense reaction, with 67.4% deeming it unacceptable ($M = 2.61$). While still skewed towards unacceptability, we note a broader spread across the scale compared to other categories. This understanding of public sentiment underscores a heightened acceptance of exclusion based on political alignment, potentially because of its direct relevance to the context of political advertisements. Nonetheless, the overall trend across all categories underscores a societal preference for inclusive rather than exclusive approaches in political advertising. Overtly discriminatory strategies based on inherent personal characteristics are broadly rejected by the public, even if they are done by their own preferred political party.

To test whether individuals who lean towards right-wing ideologies are more likely to accept exclusion in political advertisements by their preferred political party (H1), we run two models. Table 1 shows two linear

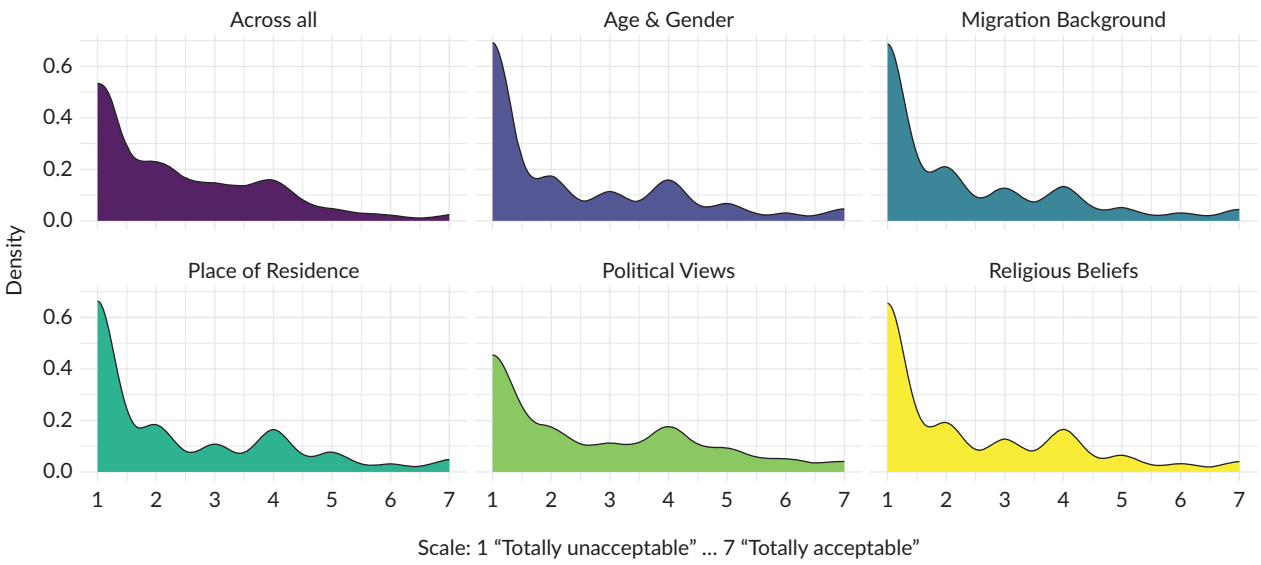

Figure 4. Distributions of acceptability ratings per exclusion criteria.

regressions used to analyze the acceptability index. In Model 1 we control for age, gender, education, and general trust. Model 2 extends this analysis by incorporating the left-right self-placement of respondents as an additional predictor. Right-leaning individuals tend to be more accepting of exclusion (b = 0.06, SE = 0.01, $p < 0.001$). Examining the five exclusion categories—age and gender, place of residence, migration background, political views, and religious beliefs separately—we notice a significant trend: Individuals leaning towards the political right exhibit a notable acceptance of exclusion based on migration background (see Figure 5).

Table 1. Linear Regression Models Predicting Acceptability of Exclusion.

	Model 1		Model 2	
	M	(*SD*)	*M*	(*SD*)
(Intercept)	3.77 ***	(0.20)	3.35 ***	(0.22)
Age 25–34	–0.32	(0.16)	–0.32	(0.16)
Age 35–49	–0.66 ***	(0.16)	–0.67 ***	(0.16)
Age 50–64	–1.21 ***	(0.15)	–1.24 ***	(0.15)
Age 65+	–1.52 ***	(0.15)	–1.53 ***	(0.15)
Female	–0.27 ***	(0.07)	–0.23 **	(0.08)
Gender neutral	–1.17	(1.37)	–0.96	(1.36)
Middle education	–0.03	(0.10)	–0.04	(0.10)
High education	–0.08	(0.11)	–0.04	(0.11)
Trust index	–0.07 *	(0.03)	–0.04	(0.03)
left/right placement			0.06 ***	(0.01)
Adj. R^2	0.12		0.13	

Notes: N = 1379; age category: 18–24 is the reference category; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

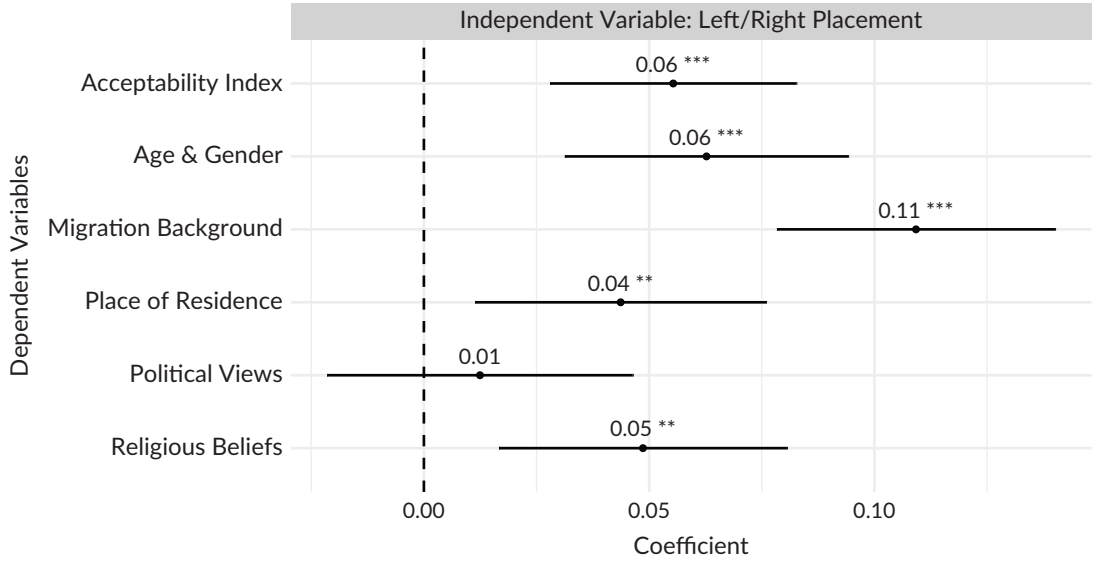

Figure 5. Predicting acceptance of various exclusion categories using citizens' political left/right placement. Notes: Graph shows separate linear regression models, using each a different acceptability of exclusions as dependent variable but the same left/right placement independent variable; model controlled for age, gender, education, and general trust of participants; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

8. Discussion and Conclusion

This article investigates how political parties use citizens' data on Facebook and Instagram to exclude citizens and explores how citizens perceive this exclusion. By employing a novel methodological approach that integrates the Meta Ad Targeting dataset from 2021 and 2023 with survey responses collected before the Dutch general election of 2023, this article not only scrutinizes party practices but also contrasts them with the perspectives of potentially affected citizens.

We found that Dutch parties across the political spectrum use citizens' data to decide who gets to see which political advertisement on Instagram and Facebook and who does not. However, this practice was more prevalent in 2021 than in 2023. Few parties explicitly exclude specific citizens, with the majority adopting a more implicit approach by refraining from targeting certain citizens. Detailed exclusion criteria such as using citizens' political viewpoints, migration background, and religious beliefs are rarely used by political parties. However, our study reveals a growing trend in the use of "custom audiences" for the intentional exclusion of specific citizen groups. While citizens generally deem all forms of exclusion (based on age and gender, place of residence, migration background, and religious background) unacceptable, they consider exclusion based on political views to be the most acceptable. Interestingly, citizens who describe themselves as politically right-leaning are more accepting of exclusion overall, especially of excluding citizens based on their migration background.

Two insights emerge from our examination of party practices in excluding citizens from viewing online political campaign messages and advertisements based on their data. Firstly, we observe that political parties overall spend less budget on implicitly excluding (targeting) specific demographic groups in 2023 compared to 2021, especially based on age, gender, location, political views, and religious beliefs in their campaigns on Facebook and Instagram. Exclusion based on more sensitive data rarely happens. While this may suggest a change in strategy or priorities in how parties engage with voters, it is plausible that newly introduced targeting regulations, such as the DSA, prompt parties to adapt their behaviour during their 2023 campaign compared to 2021. Additionally, increased public awareness surrounding the topic of targeting may have made most Dutch parties cautious of engaging in DDC, as issues related to privacy protection and transparency are widely discussed (Gibson, Bon, & Römmele, 2023). Secondly, more detailed exclusion criteria, such as political viewpoints, migration background, and religious beliefs, are rarely employed, with one notable exception being the Dutch party DENK. This party, which specifically targets citizens with a migration background, increased its budget allocation to implicitly exclude (i.e., target) certain citizens based on migration background. However, overall, parties are less likely to use more detailed criteria when excluding or targeting citizens in their online advertising campaigns. This is in line with previous research that sophisticated targeting rarely happens due to limited party funds or personnel (Dommett et al., 2024) and simple targeting and exclusion prevails (Votta et al., 2024).

In the second part of this study, we explore how citizens perceive the exclusion of others by their preferred political party. Firstly, citizens overwhelmingly consider it unacceptable to exclude others based on their characteristics, with the strongest aversion to exclusion based on migration background (80%) and the least aversion to political views (67%). This finding aligns with previous research (Dommett et al., 2022; Kozyreva et al., 2021) and suggests that exclusion based on political views may seem more reasonable to citizens, as it is more closely tied to political advertising practices, potentially leading to it being viewed as more

acceptable. Secondly, we find that individuals on the right end of the political spectrum generally find exclusion more acceptable, particularly when it involves excluding other citizens based on their migration background. This finding is important as it underscores how political ideologies can shape attitudes toward exclusionary practices within the context of data-driven political advertising. Specifically, it suggests that while some individuals might find it acceptable to exclude certain groups from political advertisements, this acceptance could also reflect a broader willingness to exclude these groups from public discussions based on their migration background. Contrary to our findings, Kozyreva et al. (2021) found no difference in attitudes towards algorithmic personalization based on political leanings. However, it is possible that referencing the exclusion by "your preferred party" in our question may have triggered in-group/out-group thinking among respondents as explained through social identity theory (Tajfel & Turner, 2004). This effect seems to be particularly pronounced among right-wing partisans, whose preferred parties often promote polarized "us vs. them" rhetoric (Mudde, 2007).

8.1. Limitations and Future Research

While this study employs a methodologically advanced and unique approach to examining exclusion in DDC, it is not without its limitations. The categorization of the "detailed targeting criteria" into the five exclusion characteristics was done carefully to avoid attributing undue meaning to certain criteria. However, we cannot be completely certain about the motivations behind every exclusion criterion used by political parties, nor who is targeted or excluded using "custom audiences" as this would require qualitative interviews with campaigners. As a result, we categorised many exclusion criteria as "other" as their meaning could not be confidently determined. Legislation like the recently adopted TTPA, which reaffirms the necessity for adequate ad transparency measures, along with the planned European ad repository, could provide more opportunities to study targeting and exclusion strategies also between social media platforms (van Drunen et al., 2022). Furthermore, our study focused exclusively on the acceptability of exclusion by preferred parties. While this provides valuable insights, future research could broaden the scope by comparing it with the acceptance of exclusion by other political parties. We find that "custom audiences" are increasingly used to explicitly exclude certain citizens. Unfortunately, we lack information about the composition of these "custom audiences," as this knowledge is confined to Meta and the political parties using them. While it would certainly be interesting to unpack these custom audiences in future research, it is likely they will remain a black box. Nevertheless, future research could investigate another important aspect that we were unable to study: the extent of information asymmetry caused by exclusion practices and its actual impact on citizens. This is important because understanding how exclusion influences the distribution of information can reveal potential biases in citizens' knowledge and perceptions, with implications for democratic processes and social cohesion.

Overall, our findings highlight the prevalence of exclusion over time and across various political parties. While our study indicates that exclusion proxies may be used to circumvent bans on discriminatory targeting practices, it also suggests that parties infrequently employ sensitive exclusion criteria. However, ultimately, we need better transparency measures to assess this more accurately, especially in regards to custom audiences. Moreover, although citizens generally oppose such exclusions, there are nuanced differences in attitudes based on party affiliations. Despite ongoing concerns about the power dynamics in political communication on digital platforms, our study offers a hopeful perspective, noting a possible positive impact of stricter regulations implemented in recent years. Thus, our research contributes to the ongoing discussion

on the unintended consequences of data-driven campaigns. Future studies could build on these insights by assessing the effectiveness of regulatory measures and investigating how various exclusion practices—beyond those related to personal interests such as favorite sports teams or dietary preferences—affect democratic engagement.

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Conflict of Interests

The authors declare no conflict of interests.

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

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ARTICLE

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Data-Driven Maintaining: The Role of the Party and Data Maintenance in the US Context

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Abstract

Political campaigning in the US is unique in the global context for its lack of attention to the role of the party, largely due to the centrality and power of campaigns. In the US context, successful data-driven campaigning (DDC) has often been covered by the press and analyzed by US scholars as an innovative campaign creating new tools and new tactics (and earning more media coverage for them). This research investigates the oft-ignored role of party organizations in DDC in the US, and in doing so, highlights the invisible work of data maintenance that is their purview. Methodologically, it brings together interviews with staffers from both party organizations and campaigns with thematic analysis of news coverage to answer questions about how the data-driven practices of parties versus campaigns differ, how parties' data work is (and is not) covered, and what, in staffers' views, contributes to such coverage. Ultimately, this research highlights how a lack of attention to party organizations' work has gone hand in hand with a lack of attention to maintenance work in both academic and public discussions of DDC.

Keywords

big data; campaigns; data-driven campaigning; maintenance; political campaigning; political parties

1. Introduction

In the decade since academic attention to data-driven campaigning (DDC) has taken off, the field has increasingly focused on a variety of international contexts (Dommett et al., 2021; Dommett, Kefford, & Kruschinski, 2024; Kefford et al., 2023; Roemmele & Gibson, 2020). Still, much of the foundational work in

the field centers on the US case (Baldwin-Philippi, 2019; Hersh, 2015; Karpf, 2016; Kreiss, 2016; Nickerson & Rogers, 2014; Stromer-Galley, 2014). Thus, this early work has often set a standard for comparative analysis (Gibson, 2020). One difficulty of engaging in such comparative work, however, is the mismatch in how US-focused scholarship has overwhelmingly focused on the role of candidate-centered campaigns, while studies of DDC in advanced democracies (indeed, all of the international examples above), center the role of the party. While it's relatively common knowledge that parties have databases that provide campaigns with lots of data, questions about which types of data practices US party organizations, as opposed to campaigns, engage in have garnered less attention from both academics and the press. In order to investigate what kinds of data work US party organizations do and how it gets covered, I bring together two methodological approaches. First, I conduct interviews with political professionals who specialize in data. I also engage in thematic analysis of news coverage of data campaigning. In both analyses, I focus attention on what types of data work—maintaining, modeling, targeting, and testing—party organizations engage in.

From the interviews, I find that political professionals describe the work done in national party organizations as focusing overwhelmingly on maintenance and modeling, and that maintenance, in particular, is seen as work that is unrecognized and unique to party organizations. From news coverage, I find that coverage of maintenance by party organizations is often overshadowed by coverage of campaigns and that maintenance is often described as a supportive and passive act of "providing" data, rather than actively cleaning, acquiring, standardizing, or creating new data. Overall, this work attempts to bring greater attention to the maintenance work done by party organizations in the wider campaign-focused US context.

2. Literature Review

2.1. Campaign-Centric Analysis of DDC in the US

For roughly the past century, US politics has fundamentally focused on the candidate-centered campaign (Arbour, 2014). While parties may hold power to surface and squelch nominees in primary elections (Cohen et al., 2008), even this stronger assertion of parties' power centers the subsequent candidate campaign as the main focus of electoral attention in general elections. So much so that the term "campaign" generally implies the separate candidate organization that is legally, financially, and organizationally separate from party organizations. This contrasts with the continued power of parties in other advanced democracies and systems of parliamentary rule, as:

> Parties in the United States certainly do provide a common label under which candidates run for office. However…the parties are not strong links between voters in elections and the officials they elect to represent them in party government, as the term is understood in other countries. (Dwyre, 2010, p. 28)

As such, instead of robust, centralized organizations, parties in the US are best understood loose networks or constellations of actors involving not only party committees (e.g., the Democratic National Committee [DNC] and Republican National Committee [RNC], Democratic Senatorial Campaign Committee [DSCC], or National Republican Senatorial Committee [NRSC], etc.) but also the attendant campaigns, private consulting firms, and even activist and advocacy organizations that make up the partisan ecosystem (Gerken & Fishkin, 2014; Masket & Noel, 2021). As a result of their relatively removed status, national party

organizations have developed to "play a supportive role, offering resources and services to candidates who seek their help" (Galvin, 2012).

This is particularly true in a digital context, as "the candidate-centric electoral process largely relegated parties to a supporting role as campaign organizations dictated media strategies" (Owen, 2013, p. 348). This "supportive" function, often maligned as powerlessness in political science literature, also deserves attention as what I will describe below as important "maintenance" work. In landmark US-based studies of DDC, scholars have focused on data infrastructure like databases used for targeting potential voters (Hersh, 2015; Kreiss, 2016; Nielsen, 2012), and positioned party organizations as one of the many actors in that space. As Kreiss's (2016) *Prototype Politics* centers the organizational development of data infrastructure, it focuses on the synergies between party organizations, campaigns, and third-party actors like for-profit tech consultancies to tell the story of how databases like the Data Center and VoteBuilder came to be. By focusing on synergies, it gives less attention to the ways the work done by parties may be fundamentally different than that done by campaigns. Hersh (2015) deeply investigates the types of data that make up the foundational data infrastructure of the left—including party-affiliated databases (NGP-VAN, which although a private company, makes the DNC's data useable by campaigns), as well as that of outside consultants (Catalist). Within the US context, outside of these two bodies of work, research on data campaigning focuses overwhelmingly on campaigns (Baldwin-Philippi, 2017, 2019; Kruikemeier et al., 2022; Nickerson & Rogers, 2010). As a result, accounts of DDC in the US remain incomplete due to the lack of focus on party organizations as separate entities. In doing so, they underplay the importance of parties in the US as key, if hidden, agents of delivering campaigns. Because analyses in other countries often center on the party, an increase in attention to the role of parties in the US also enables greater comparative analysis.

2.2. Goals of Data-Campaigning: Maintaining, Modeling, Targeting, and Testing

As the field of DDC has developed, many scholars have tried to assert "what counts" as DDC. One robust definition, created by conducting a descriptive meta-analysis of existing research on DDC, argues that it "relies on accessing and analyzing voter and/or campaign data to generate insights into the campaign's target audience(s) and/or to optimize campaign interventions. Data is used to inform decision-making in either a formative and/or evaluative capacity" (Dommett Barclay, & Gibson 2024, p. 2). Other definitions overlap but add additional focus on practices. Kefford (2021) describes DDC as "a set of inter-locking practices and processes which includes collecting data, building models of the electorate, creating supporter and persuadability scores, [and] segmenting and targeting voters at the individual level" (p. 6). Roemmele and Gibson (2020) argue that DDC involves developments in data infrastructure, a networked approach to voter communication, enhanced targeting, and internationalized campaigns. Baldwin-Philippi (2019) has argued that practices of targeting and testing are foundational to DDC. From the above definitions, four types of practices emerge as useful frameworks by which to assess what campaigns and party organizations are doing, and how that work is understood by the public and media: maintaining, modeling, targeting, and testing.

Maintaining is the work of cleaning, updating, and standardizing databases, assessing the use value of various datapoints, and collecting new data. Because campaigns rely on shared data that comes from a variety of data sources and can quickly become outdated, this work is integral to all political organizations' ability to engage in practices of modeling and is also directly related to efforts to target. This definition combines Kefford's (2021) emphasis on "collecting data," with Roemmele and Gibson's (2020) focus on infrastructure.

Beyond the realm of political communication, maintenance studies, a subfield within science and technology studies, has argued that although innovation and maintenance are intertwined: "Maintenance and repair, the building of infrastructures, the mundane labour that goes into sustaining functioning and efficient infrastructures, simply has more impact on people's daily lives than the vast majority of technological innovations" (Russell & Vinsel, 2016). Maintenance, they argue, has long gone ignored—by academics, the broader public, and the media that brings attention to such subjects–despite its centrality to all innovation. Scholarship on DDC and digital campaigning more broadly has long focused on innovative and cutting-edge practices, and continues to overlook maintenance risks ignoring the constantly ongoing work that is necessary to continue to develop new innovations. Dommett, Barclay, and Gibson's (2024) exhaustive definition above even leaves maintenance out, instead focusing on what campaigns do with already-formed databases.

Modeling focuses on the work of creating and refining new data points and algorithms that campaigns and parties can use to explain and predict the electorate in a variety of ways, from who is likely to vote versus who needs encouragement, or who is likely to be persuaded. This category of practice combines Kefford's (2021) two DDC qualities of building models of the electorate and creating supporter scores and Dommett, Barclay, and Gibson's (2024) focus on data segmentation, modeling, and behavioral monitoring. These models are often key to a wide variety of campaigns' and parties' strategy development, from when and where to deploy resources in canvassing labor to how to target ad buys.

Targeting has been defined by Baldwin-Philippi (2019, p. 2) as "using data to decide which messages go to what potential voters at what time during the campaign." This combines Kefford's (2021) focus on segmenting and targeting, Roemmele and Gibson (2020) focus on enhanced targeting, and Dommett, Barclay, and Gibson's (2024) definition of using data to develop target audiences.

Testing has also been defined by Baldwin-Philippi (2019, p. 2) as "empirically measur[ing] how well messages perform against one another and us[ing] that information to drive content production." This connects with Dommet et al's (2024) definition of formative assessment as well as "optimizing" campaign decisions, as A/B testing is often referred to as optimization testing.

In order to investigate what types of data work party organizations engage in, and how that compares to candidate-based campaigns, I take two different qualitative approaches. First, I focus on the perspectives of professionals themselves and investigate the ways they describe their work. Second, I turn to journalistic coverage of DDC to understand what work done by parties is actually explained to the public. As news coverage is a major way the public understands the intricacies of the actual work that goes into campaigning, there is value in combining professionals' own perspectives with the more generalist overviews of such work that news coverage is more likely to contain. Ultimately, I ask two research questions about these practices of data campaigning:

> RQ1: How do the focuses of political professionals who specialize in data campaigning in a national party setting differ from those who specialize in data campaigning within campaigns and consultancies, especially with regard to questions of data maintenance?
>
> RQ2: What does journalistic coverage of maintenance work done by parties look like?

Together, these approaches help reveal a holistic picture of data work that is both perceived as overlooked by party staffers and often is left out of news coverage.

3. Methods

To assess the political professionals' own accounts of their work, I conducted 15 interviews from 2019–2020, all with leaders in the field who were promised anonymity—people who ran data or digital teams in presidential elections, national party committees, or are founders or partners in firms that specialize in data campaigning from both the Democratic and Republican ecosystems. Descriptions of the professional experience of the interview subjects can be found in Appendix A of the Supplementary File. Of the 15 interview participants, nine came from the Democratic ecosystem and six from the Republican ecosystem. Five total staffers spent over three years doing data work in their respective national party organizations (three DNC, two RNC), six spent over a year (four DNC, two RNC), and four have never worked in their national party organization. Semi-structured interviews ranged from 30–66 minutes, with an average time of 43 minutes. These interviews were all conducted prior to the analysis of news coverage.

In order to investigate news coverage of party organizations' efforts at data campaigning, I used Google News to search for party-focused news coverage across presidential elections from 2012–2020. I took the less traditional approach of using Google News to locate articles that were more likely to have gained popular attention and additional secondary media attention (Ørmen, 2016). While Google News results algorithmically curated nature may mean that search results change, research has shown that to be true of traditional news databases like Factiva and LexisUni as well (Blatchford, 2020). All searches were made manually while logged out of my own Google account to avoid personalized returns.

To create the sample, I engaged both date-constrained and unconstrained searches using the terms "[DNC/RNC]" and data and campaign "from:date [mm/dd/yyyy to:date [mm/dd/yyyy]" in the 6 months leading up to and 3 months following presidential elections (May 1st prior to the election until January 31st following Inauguration Day), and under the "sorted by relevance" setting (Google News' default), for each of the 2012, 2016, and 2020 cycles. Currently, Google sets its archived News results to display a general estimation of total returns to that search (e.g., "about 1,990 results (0.28 seconds)") but only allows users to look at (and click through) the top 50 results. I supplemented this by searching the terms "[DNC/RNC] and data and campaign" without date constraints, but using Google News' "advanced search" button, which is an algorithmically curated search function that purports to return "top news for a given country and language." Collectively, this resulted in 347 articles. After removing results that did not focus on data campaigning or were duplicated across both party searches, a sample of 130 articles remained, and all relevant URLs were entered into a spreadsheet to maintain a stable dataset.

To locate themes and trends within the coverage, I engaged in qualitative thematic analysis (Braun & Clarke, 2006) with attention to how particular narratives and stories about who holds what type of power and skills play out in news stories. Thus, I ground my thematic analysis in questions of "what depictions of the issues around data campaigning, specifically practices of maintenance, modeling, targeting, and testing are circulated to the public?" and "what depictions are missing?" My coding started with deductive attention to categories' presence or absence of campaigns and parties and the types of data practices covered (maintaining, modeling, targeting, testing), and moved into developing inductive codes around which practices were presented in detail, and the details of their description.

4. Findings

4.1. Party and Campaign Data-Work According to Practitioners

Through interviews with political professionals on both the campaign and party sides (including many who have worked in both types of organization), I find that staffers more rooted in party organizations overwhelmingly feel that their work is fundamentally about maintaining data infrastructure, and to a slightly lesser degree, modeling. Campaign staffers and consultants speak much more about targeting and testing, and some also discuss modeling. Importantly, party staffers also discuss how overlooked their core work of maintenance is.

The work discussed by staffers of party organizations, and in fact often ignored by campaign staffers or consultants, is overwhelmingly that of the work of data maintenance. Parties maintain voter files that include but also go beyond contact information such as email addresses and mobile phone numbers, and this work can involve vetting and acquiring new data points, updating existing data, cleaning data, creating original or synthetic data points from other existing data, creating predictive models from any combinations of data, and so on. Moreover, both parties contractually obligate candidates using their files to add any data they procure on their own to their files, obviating that data collection is their purview.

As a leader of a party data team describes it:

> Probably the most expensive and important thing in political data is actually building voter files and aggregating all this data….The voter file system in this country is really, really fragmented…some files haven't been upgraded in years, a lot of it's still there on paper, and there's this third party data that requires sterilization and cleansing process. (Personal communication, 5/27/2019)

Others emphasized the grinding work that this entails, saying "it's not magic, it's just a lot of hard work. It's a lot of cleaning and maintaining, and kind of boring hard work" (personal communication 8/4/2020), and "it's just incredibly time consuming and messy, but one of the most important things is to increase the frequency with which we update data and add more data" (personal communication, 6/24/2020).

Those who did describe maintenance within the campaign explained it as an outlier. One described how most campaigns at all levels below presidential races as being much less concerned with data work of maintenance or modeling, saying:

> When you're building a [campaign] team, the expectation that you're going to *have* data. And like you'll probably hire one person who interfaces with the [outside] data team, and then you're gonna hire most likely firms outside [to handle the data work]. (Personal communication, 8/4/2020)

Another self-proclaimed outlier pointed to their efforts in a presidential primary campaign to obtain data directly from voters and forego outside, non-party data, saying:

> It was really different and innovative. We really could only do it because we had such strong organizing behind us—it was just so many hours from so many people [meaning supporters, not only staffers], I don't know other campaigns that could do it like this. (Personal communication, 11/8/2019)

A staffer with experience in both party and campaign environments described how they saw acquiring data as different from other maintenance practices that many campaigns did not engage in, noting: "We [a presidential campaign] have to clean it up. Most campaigns don't have the manpower for that, and don't do it at all, they just get more emails and use them" (personal communication, 8/4/2020).

The data that parties take so much effort to maintain through new acquisitions, data cleaning, and updating can then be used to create predictive scores that model voting behavior, donor behavior, or persuasive potential. Importantly, staffers from parties and party organizations spoke to both modeling turnout and creating predictive behavioral or persuasion scores. In a recent Medium post, former DNC CTO Nellwyn Thomas touted the party's continued development of additional modeled data points, saying "we provided our users with 75+ unique predictive scores" and a "choice support model, predicting the likelihood a voter supports legal abortions, within 72 hours of the official Dobbs decision" that was passed along to candidates" (Thomas, 2022). Another operative who's worked for the RNC explained to me:

> We also make sure [campaigns] have access to modeling for their races….And not just national, you know, [for] every target Senate race, we do modeling at least once a month right now. In targeted congressional races we also do some. (personal communication, 5/27/2019).

These models tend to be especially useful for down-ballot races, as presidential-level candidates often have their own teams to do this work, though general party work supports all levels of campaigns.

People who worked predominantly in staffer and consultant positions often discussed data as it related to practices of targeting and testing, with much less attention to either modeling or maintaining. Of the few who spoke of maintenance in a campaign environment, their focus was on acquiring data, with one noting: "We bring in contacts–it's our ads and messages that get new phone numbers and emails…that is gold to them [the party organization]" (personal communication, 8/8/2020). Some also discussed modeling, but most of those references were to models they could make use of, not ones they continued to develop (personal communication, 8/14/2019). Another staffer who did describe how they'd done robust, ongoing modeling within a campaign noted how they thought that was an outlier, saying "that's probably only the case within a presidential. And even then, probably not all of them" (personal communication, 8/4/2020).

Overwhelmingly, the campaign and consulting professionals talked about ways they use data to target and test, and how they see those practices as key to successful campaigning. One such professional discussed a variety of data practices they thought were important, from "I think that you can learn a lot about life in general from testing and optimization, from landing pages to emails to Facebook (fundraising) ads…take that attitude that you just don't know what will work best to all things" (personal communication, 8/14/2019). Another with more of a staunch consultant background echoed that, "the less that we have to rely on our gut instinct to as to what's going to work and what's not, it makes everyone's life better" (personal communication, 2/19/2019). This consultant went on to articulate how targeting was most useful in how it could be used to advise campaigns broadly on their overarching messaging strategy, rather than get into highly specific and differentiated targets:

> We can find the people who might be receptive to our messages, which means we can, and we know a little bit more about how better to appeal to them, and how to deliver those messages to them more effectively and efficiently and cost effectively. (Personal communication, 2/19/2019)

One consultant who worked on major Republican campaigns emphasized that some of their best experiences with other data firms dealt with much of the maintaining and modeling, and the campaign "took their memos and their briefings and turn them into ads….I mean a *lot* of ads, so we could test them in Facebook." Another focused on their central focus of using data to target audiences for ads, be they on social media, mobile web ads, or over-the-top TV ads (personal communication, 6/10/2019).

In their considerations of what types of data campaigning they felt received attention from the press, staffers from all types of organizations were clear about what they saw as a dearth of coverage devoted to data maintenance, and about the primacy of targeting and testing. Data staffers on both sides of the aisle chalk this up to the actual work of data maintenance being hard to turn into a story due to its complexity: "[Maintenance] doesn't get a lot of coverage. But you know, I wouldn't necessarily say that's unfair, I don't talk about it a ton either. It's just, it's really, it's complicated. It's convoluted to explain" (personal communication, 7/21/2020). This idea that news norms of novelty and exciting practices made it difficult to write about important, but mundane data work was common. One RNC staffer said that "it's also not sexy, like, how do you sell like, hey, [reporters], we're gonna hire more people to cleanse data!" (personal communication, 5/27/2019).

Some political professionals explained how reporters' expertise and focus on the political side of things, rather than the technology side led to difficulties in gaining coverage: "For the most part, we're talking to political reporters. So we don't even have necessarily the benefit of like, data reporters or more technically savvy reporters who like are going to be breaking down the technology perspective" (personal communication, 6/24/2020). Another explained that "I think that most people [reading the news] don't have a great grasp of data and tech and that makes it hard for journalists to write about" (personal communication, 8/14/2019).

Other data professionals argued that the focus on novelty led to particular data practices getting outsized media attention. One campaign staffer and consultant noted how journalists were ready to cover stories about microtargeting much more often than any other data practices, saying "reporters all the time, they're always looking for me to talk about microtargeting, and I'm just like, unwilling to engage" (personal communication, 8/14/2019). A staffer from the GOP ecosystem described how hard it was to earn coverage making realistic claims: "What I'd like to see, frankly, is less concentration on 'we've found the next big thing' than just the basic blocking and tackling of how data and analytics has been used" (personal communication, 6/10/2019). One democratic data professional described this by saying that "there's definitely not a correlation between the things that are most impactful, and the things that reporters think are really sexy" (personal communication, 7/2/2020).

4.2. Party Data-Work According to News Coverage

If political professionals themselves describe the data work done by national party organizations as substantively different from that which campaigns undertake, a related question remains: How does the press cover the data work done by campaigns and parties? Particularly, if we know that political professionals dedicated to party work see their work of maintenance and modeling as unique, how does that work get covered? Three trends of coverage emerge: (a) an emphasis on campaign work, which largely centers the work of targeting and testing; (b) attention to party and campaign work, where party practices are simplified into "support" of providing data; (c) attention to the details of what goes into maintaining and modeling that has focused on both party work and campaign work. All of these types of coverage are

present, though the former types of coverage are more prevalent than the latter, with overall very little attention to the specificities of party work of maintaining and modeling, especially maintaining.

Overall, even when searching for party-focused stories, for every year's search and on both sides of the aisle, many articles were actually focused on the candidates and their campaign apparatus. Eighteen percent of articles did not mention the RNC or DNC in any way related to data campaigning (often a reference to party fundraising or polling, or a source speaking positively about the candidate was the only mention). Thirty percent of articles center on the campaign, giving only very cursory mention of the party organization's data work. Twenty-eight percent center on the party organization's work. The remaining amount—roughly 40% of the articles—discuss the work of both. The campaign focus was especially true for major news coverage and in-depth reporting: *Bloomberg*'s "Inside the Trump Bunker With 12 Days to Go" (Green & Issenberg, 2016), *MIT Technology Review*'s multi-volume "How Obama's Team Used Big Data to Rally Voters" (Issenberg, 2012), and *Atlantic*'s "Obama's Edge, the Ground Game That Put Him Over the Top" (Ball, 2012) all contain brief mentions of the party organizations, but the main focus is on the campaign. Moreover, in each of those articles, the focus is on practices of targeting and testing. As a result of that slippage, and the overall campaign-focused emphasis on targeting and testing, parties are also portrayed as deeply connected to the work of targeting and message testing.

A second trend of coverage does actually attend to party activity, but flattens and simplifies the work they do—casting the work of maintenance and modeling as something akin to "providing access to data" without describing the degree of work, ongoing attention, and labor that goes into maintaining that data that can be provided. One such article downplays the role of party data, noting that the Trump campaign's so-called "data-push" "also includes commercial data obtained from the RNC and other sources" (Vogel & Samuelsohn, 2016), when the party was the center of the work. Often coverage like this does emphasize organizations' importance in data work, noting that it is central to campaigns' success, but positions the parties as holders, gatekeepers, and suppliers of data, rather than the people who actually procure, access, aggregate, clean, manipulate, and create data. As NBC News wrote, "The presumptive Republican nominee has done little to build its data force and is relying on the Republican National Committee to pick up the bulk of the responsibility for the critical component of its campaign" (Caldwell, 2016).

One limit of this type of coverage is that it often positions data sharing as a single moment of exchanging an asset, rather than a constant process that requires continued attention both inside and outside of election seasons. Examples like "The RNC would offer Trump its full backing, with a promise to share data" (Murray et al., 2018), or "The RNC agreed to allow Trump to use the party's voter file…containing information on more than 200 million Americans" (Vogel & Samuelsohn, 2016) engage in this style of coverage. Such reportage can even describe data in detail, as this example from the *LA Times* does: "the Democratic National Committee's database, containing voting history and demographic information, as well as feedback from contacts with individual voters going back to 1992" (Parsons & Hennessey, 2012), but does not talk about the work processing, wrangling, or otherwise making use of data. Overall, this lack of attention to the work that goes into making data shareable by campaigns across the country, positions data as a stable asset, rather than one that takes labor to constantly construct and maintain.

This coverage also often references the importance of practices like modeling, instead of maintenance work, covering "advances in voter modeling and its heavy investment in the party's ground game" (Vogel, 2016),

and often focusing on simply how much money parties are spending on these tools and assertions of their importance: "The party spent more than $175 million over the past four years to improve predictive modeling to prevent the kind of defeat Mitt Romney faced" (Rosche, 2016). As an outlier that proves a broader norm, one article in *Ad Age* did cover party work related to targeting, but specifically highlighted that it was an anomaly that a party would engage in such activity at a large scale (Kaye, 2016). In this type of coverage, dedication and investment in modelling is referenced more than maintaining.

Finally, articles do occasionally get into the details of what goes into both maintaining and modelling. One 2012 article in Salon, explaining the important development in DNC infrastructure said that the innovation was that "DNC would effectively borrow their files, help clean them up, add new data like donor information and commercially available phone numbers, and then return them for the state party's use." *RollCall* covered of equivalent work by the RNC has noted "The Republican National Committee says its database and models that assign voter scores as well as track how voters react to political advertising and other messages are superior" (Ratnam, 2020). *Forbes* has also covered developments in data work on the RNC side, detailing how the party "developed a data platform that allows candidates to *read and write* data to and from the platform. That means, because they allow access through APIs (routines, protocols and tools to access the data) the Data Center will continuously serve up the latest information for GOP candidates" (Fidelman, 2015).

Following the 2016 election in particular, a sizeable amount of the coverage collected did give detailed insight into the RNC's data campaigning operations—which simply was not the case in other years, or for the DNC in any years studied. Numerous articles in the Fall leading up to the Presidential election centered on how the RNC was supplementing the Trump campaign (Booker, 2016), even specifying that this was "unprecedented" (Kaye, 2016). The RNC was also the subject of so-called "victory lap" articles. One such article, headlined "Republican Party Leaders Take Victory Lap" noted the work of the campaign, consultants, and the party, while quoting RNC Chief of Staff Katie Walsh repeatedly and centering party work (Kamisar, 2016). One Politico article covering an RNC-led briefing the Friday before election day engaged in a meta-commentary that highlighted the fact that the party taking center stage was somewhat abnormal. It specifically noted that:

> The briefing was called ostensibly to highlight the RNC's advances in voter modeling and its heavy investment in the party's ground game. But it also seemed at least partly intended to prove that the Republican Party gave Trump—and all of its 2016 candidates—the tools to succeed in 2016. (Vogel, 2016)

One other trend within detailed coverage is that it emerges when infrastructure breaks. WIRED published an extremely detailed accounting of the DNC's "crumbling" Vertica platform in detail, explaining the maintenance work needed to keep it working, its limitations, and how party organization data staffers were deployed to build a new data infrastructure in its place (Lapowsky, 2019). Similarly, following 2012, numerous news outlets covered the RNC's "autopsy" report, in which the party detailed how it was behind in data infrastructure (Schaeffer, 2013; Wheaton & Shear, 2013). Campaigns' roles in data and infrastructure failures were a key element of post-election accounts of why Clinton did not win (Goldmacher, 2016; Wagner, 2016).

Importantly, the latter two categories of coverage—articles that acknowledge maintaining and modeling and detail its practices—are often heavily rooted in game-frame (Aalberg et al., 2012; Jamieson, 1993) or contest-style coverage. Just as contest-frame coverage of campaigns' is a central part of campaign coverage,

press on parties' data operations often emphasize which party is perceived as "behind" or "ahead" in its data infrastructure and maintenance, as seen in the headline "Democrats Belatedly Launch Operation to Share Information on Voters" (Epstein, 2020). Data campaigning is important enough to garner game frame style coverage of staff changes—firings or additions—was often the hook for press coverage that mostly did not otherwise engage in specifics about data campaigning's specifics. There were stories about RNC firings between cycles (Isenstadt, 2024), as well as coverage of notable departures from top party data roles on both the right and the left (Isenstadt, 2017; Lapowsky, 2019; Nickelsburg, 2019). One staffer on the left pointed to the way that campaigns have had better luck getting the intricacies of data work covered specifically because it can tie into a game frame more directly than party work:

> Early vote data is really good for [getting press coverage]. Like, it's available and actionable, and concrete. You can get journalists to take the bait. You can slice it a bunch of different ways and say look, we're doing well, and they'll cover that. (Personal communication, 8/4/2020)

5. Discussion and Conclusion

Together, these findings paint a picture of party organizations' work of data maintenance–indeed, their primary role, and a focus that is relatively unique to the party organization—as under-recognized, often due to a focus on other DDC practices of modeling, targeting, and testing. While campaigns are likely to engage in particular practices of data acquisition, additional "maintenance work" of cleaning, standardizing data, measuring its importance to campaigns, and so on, are left to party organizations. Data staffers from both party organizations and the campaign/consulting side recognize the difficulty of getting these stories covered, and are very aware of how news norms of covering novel practices and an aversion to explaining complex technological processes hinder coverage. While analysis of news coverage shows that data infrastructure does earn coverage despite data staffers' perceptions that it is ignored completely, there are limitations to that coverage as well. Such coverage often presents party work as the simple task of "providing access" or "handing over" data to campaigns, rather than emphasizing the ongoing work needed to maintain data. News coverage focused on party data efforts does highlight modeling, especially framing predictive work as the key to winning elections, and as a more innovative practice than data maintenance. Moreso, however, news coverage focused on campaign efforts and emphasized targeting and testing practices. Overall, this paints a picture of US DDC scholarship as underplaying the importance of parties.

In many ways, inattention to maintenance is not new, and this work speaks not only to studies of digital political campaigning, but broader work in the "infrastructural turn" in digital media and internet studies (Hesmondhalgh, 2021). As Vinsel and Russell (2020) have argued, maintenance, is key to success, as "maintenance consists of activities that, when done correctly, ensure longevity and sustainability…no innovation can persist without maintenance" (p. 158). Attention to practices of maintenance, rather than just innovation, is important if we want to give a realistic portrayal of emerging technological practice. Revealing these practices also holds instrumental stakes for less professionalized political actors trying to engage in what they assume are key "data-driven practices," but will be superficial and less effective if they overlook the work of maintenance.

This instrumental concern is amplified when we also consider that while maintaining data infrastructure ought to be a fundamental concern of party organizations, these are cash-strapped organizations, and that

maintenance work requires investment in both capital and labor. Party organizations themselves are led by political professionals who generally lack a data background and likely carry a range of assumptions and opinions about data work that may rely on perceptions of what type of data work matters. Recent years have seen the broader campaign technology ecosystem inundated with non-expert elites whose pet projects have failed, like Reid Hoffman's $35 million investment in Alloy, which hoped to bolster data efforts on the left, but ran into political and technical problems alike (Schleifer, 2020). Moreover, maintenance studies have argued that because maintenance work often has lower "occupational prestige" (Vinsel & Russell, 2020)—garnering attention and accolades for certain types of work, while others go unnoticed—it can be harder to draw people to these important jobs. Relatedly, as Kreiss et al. (2020) have shown how women working in data and digital campaigning struggle in a field dominated by a "boys club" culture, does a failure to focus on the maintenance work of party organizations fail to give occupational prestige to particular types of voices?

Although this work focuses on the US, by bringing a focus on party organizations, I hope to enable more robust comparative efforts. As party-centered database developments in the non-US context have emerged as central to DDC work (Anstead, 2017; Dommett, Kefford, & Kruschinski, 2024; Kefford et al., 2023; Munroe & Munroe, 2018) but remain incidental at best to US cases, this article aims to enable more directly comparative questions like do parties engage in practices of data maintenance differently across national contexts, and what are barriers to maintenance across international contexts? This seems especially important as non-US cases are often portrayed as lagging behind the US, but this article's focus on the more mundane maintenance work in the US brings to light some places where similar, not diminished, activity is actually taking place. Relatedly, this contributes to demystifying practices of DDC across international contexts, pointing to the mundane practices of data cleaning and systematization that are central to the work, rather than positioning it as a radical new invention.

By bringing together the direct accounts of political professionals with news coverage, this study aims to investigate both what party organization practices look like and how they are covered. Still, both methods have limitations. The political professionals I spoke with are all at the highest level of the field, often running teams in presidential races and leading data teams at party organizations or working at the top data consultancies. While this certainly makes them experts, it also means their experience is quite different than those who do data work at down-ballot races. Even though such races may be more reliant on party data work (at the national and state level), that work is likely to be even more invisible, as it is all done off-site, and local staffers are unlikely to have close ties with or dedicated staff who can speak to data work. In assessing news coverage, while the number of news stories was relatively small (n = 130), the goals here were not to give insight into things like frequency of coverage. Instead, this work unearths broad themes that are present within the coverage that does exist. Future inquiry into more deductive assessments of how often and under what conditions various types of data campaigning are covered is warranted. Whether maintenance work continues to be ignored in contexts where more attention is paid to party work is an interesting future avenue for research.

Despite these limits, this article offers insight into the role of party organizations' particular types of data work in the US and is a first step toward clearer comparative analysis with party-centering systems. In doing so, I find that parties in the US engage in robust, and indeed deeply important, practices of DDC that are fundamentally different from those of candidate-centered campaigns. Moreover, these party activities are

widely overlooked and oversimplified in the news, due to the unique favoring of campaigns and the difficulty of covering mundane maintenance work.

Conflict of Interests

The author has no conflicts of interest.

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

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