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Digital campaign competence

The role of citizens in data-driven election campaigns

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Chapter 2

Theoretical Framework

In this dissertation, I investigate the role of citizens in data-driven election campaigns. To shift the focus onto citizens, I introduce the term *digital campaign competence* (hereafter DCC) to describe a type of citizen agency, a concept I will explore in greater detail later on. The theoretical framework guiding the empirical research in this dissertation is structured into three interconnected segments, transitioning from an overview of the changes affecting election campaigns, specifically the impact of data-driven practices, to emphasizing the role of citizens in this context. Consequently, in the first segment, I analyze the effects of digitization on election campaigns in democratic societies. In the second segment, I focus on the contextual factors that propelled data-driven campaigning to become a central theme in political campaigns and, consequently, in this dissertation. Lastly, the third segment focuses on citizens' competence in data-driven election campaigns, a subject that underpins the rationale behind the specific studies conducted in this cumulative dissertation.

As I will explain in the theoretical framework, this dissertation is founded on the principle that citizens require access to political information and an understanding of how political information is shaped and distributed through data. This principle is grounded in deliberative and participatory models of democracy (Althaus, 2003; Habermas, 2009; Pateman, 1970; Strömbäck, 2005). Citizens' understanding is vital for their ability to exercise agency in the context of data-driven election campaigns. The issue of unequal access to political information has consistently raised concerns regarding the normative threats to democracies inherent in data-driven campaigns, as it has the potential to fragment political discourse (Bayer, 2020; Odzuck & Günther, 2022; Zuiderveen Borgesius et al., 2018). Additionally, the dissemination of political information guided by data has raised concerns regarding unequal opportunities for political participation, as well as privacy (Barclay et al., 2023; Bennett & Lyon, 2019; Bennett & Oduro Marfo, 2019). Building upon these issues that impact citizens as the foundation for this dissertation, I identify two primary gaps in the literature that this research aims to address. Firstly, there is a **lack of citizen-centric research** investigating their understanding, evaluation, and skills concerning data-driven campaigning tactics and the resulting implications. Secondly, the majority of studies investigating DDC originate from the U.S. and this raises the question of the extent to which their findings, specifically their localized insights into citizens, are **applicable within a European context**. While this dissertation aligns with a Western-centric focus commonly found in political communication research (Van Aelst et al., 2017), it aims to shed light on the challenges that contemporary political communication poses to citizens by addressing these research gaps.

2.1 Changing Election Campaigns

The consequences of evolving political communication become most apparent when examining pivotal events in political discourse: election campaigns. For citizens, these campaigns represent opportunities to gain political experience and shape their political engagement (Zukin et al., 2006), as they invite citizens to reflect on the legitimacy of political parties. Elections prompt questions such as whether the status quo will persist, whether a particular party will gain more influence than another, and whether certain parties will exit or enter the political arena (Taras, 2022). Existing research has classified political campaigns into four phases, demonstrating how campaigns have evolved (e.g., Klinger et al., 2023; Magin et al., 2017; Roemmele & Gibson, 2020; Strömbäck, 2008). Utilizing this framework of four phases of political campaigns in Western democracies allows for a reflection on important campaign practices.

Briefly summarized, the first phase of campaigning involves partisan-centered campaigns, during which parties aimed to reach party members through methods such as door-to-door canvassing. The second phase, post-1960s, sees the evolution of mass-media-centered campaigns, characterized by the dissemination of unidirectional messages, such as through TV broadcasts. The media plays a crucial role in facilitating communication between political parties and citizens (Strömbäck & Esser, 2014) by reporting on campaign developments, fact-checking information, and determining newsworthiness. Phases three and four demonstrate the close connection between the shift toward digital campaigning and the utilization of various forms of data to secure votes. Consequently, contemporary campaigning is shaped not only by the technological capabilities of the digital era but also by an increased reliance on quantitative indicators of voter preferences (e.g., Kreiss, 2016). The fourth phase, individual-centered campaigns, may pose particularly significant challenges and opportunities for citizens.

2.1.1 Why Have Election Campaigns Changed?

These four phases of campaigning are accompanied by significant societal and political transformations. Specifically, voter volatility, fragmentation, and digitization affect the relationship between citizens and campaigns. Research indicates a notable increase in voter volatility, signifying that voters are inclined to change their political preferences and, consequently, their voting patterns between elections (e.g., Fieldhouse et al., 2020; Pedersen, 1979). This volatility also implies that party loyalty holds less significance for citizens and is therefore less ingrained in their social identity. As a result, citizens are more inclined to focus on the specific issues raised during campaigns and engage in protest voting (Chadwick & Stromer-Galley, 2016, p. 286).

Therefore, voters tend to prioritize the messages conveyed during campaigns over solely relying on their party affiliations when making voting decisions. Alongside voter volatility, party system fragmentation further shapes how citizens engage with political campaigns. This fragmentation refers to the emergence of smaller parties (Fieldhouse et al., 2020). As a result, voters can more readily switch between parties from one election to another, leading to the emergence of the term "swing-voters" (Fieldhouse et al., 2020, p. 50), and they are more likely to do so due to weaker party preferences (Rattinger & Wiegand, 2014). Under these conditions, citizens are not only less attached to a specific party, but they also have a broader array of options available to them. This implies that political actors must compete for the support of citizens by identifying the most effective strategies. For example, approaching voters personally during a campaign has proven to be an effective strategy for influencing their party preference toward a specific party (Johann et al., 2018).

However, thanks to digitization, political parties can refine their campaign communication on their own terms. The rise of the Internet has resulted in a confluence of traditional and digital media logics, enabling political parties to side-step media restrictions (Chadwick, 2013). This implies that a greater number of actors can disseminate (political) information and that political parties have more gatekeeping power, as they no longer rely on traditional media (Klinger et al., 2023, p. 77). Thus, they have more power to shape their messages. While this dynamic applies to all political parties, it may particularly benefit right-wing populist parties and their supporters, who often express skepticism toward traditional media outlets (Sehl et al., 2022), attack elites, and foster ostracism (Engesser et al., 2017). Hence, the benefits of digitization, particularly regarding content restrictions, may enable specific parties to target audiences with tailored content that resonates with them, tapping into public frustration and channeling anger toward out-groups, incumbents, and prevailing social conditions. Amidst voter volatility and a rise in protest voting (Chadwick & Stromer-Galley, 2016), this approach could be an effective strategy for garnering voter support. As party attachments decrease, voters have an increased need for political information during election campaigns. While the media updates citizens and keeps them abreast of day-to-day politics (Barabas et al., 2014; Van Erkel & Van Aelst, 2021), the hybrid media system (Chadwick, 2013) offers them more agency to access information. The emergence of a "mediatized society" (Castells, 2009) offers a plethora of choices, fostering widespread interactions and nurturing diverse perspectives that may benefit democracy (Balkin, 2004). Furthermore, technological developments allow political parties to diversify the messages they are sending out. Political actors no longer need to broadcast one message to all voters but can increasingly "narrowcast" their political messages to specific audiences (Kreiss, 2016). Ongoing digitization, employing

technological infrastructures and data, amplifies the trend of reaching even narrower audiences. In the context of political campaigns, this is referred to as "technology-intensive campaigning" (Kreiss, 2016) and aligns with the third phase of campaigning.

2.1.1.1 From General to Target-Group Centered

Phase three, characterized by target-group-centered campaigns, emerged around the 1990s when political actors began tailoring their campaign communication to specific audience segments. This phase, leveraging the Internet as a new campaigning tool (Magin et al., 2017), laid the groundwork for (digital) campaigning strategies expanded upon in phase four. Notably, principles historically employed in marketing campaigns characterize this phase (Roemmele & Gibson, 2020, p. 596). Hence, voters are treated as consumers, and political parties are likened to product sellers. This approach aligns with the assumption that not every political product suits every voter (Newman & Perloff, 2004), but a successful campaign aligns itself with voter priorities, crafting its "product" accordingly (Butler & Collins, 1994). To determine which political product to offer to which voter, political actors use data from various sources and in different forms. As early as the administration of US President Jimmy Carter in the 1970s, opinion polls were employed to gather directional insights for political campaigns (Newman & Perloff, 2004). These polls encompassed both cross-sectional surveys and panel surveys conducted at various stages of a campaign. While it is unsurprising that the United States, with its highly professionalized campaigning methods, led the way in using data for campaigns, Roemmele and Gibson (2020) note that German Chancellor Gerhard Schröder also employed data-based insights in his 1998 campaign. Political parties have historically collected voter data through various methods, including door-to-door canvassing, phone calls, mail contacts, organizing focus groups, or by purchasing data from data brokers (Hillygus & Shields, 2009; Kreiss, 2016; Newman & Perloff, 2004). The objective of using data has consistently been to gain a strategic advantage over other political parties (Hillygus & Shields, 2009). To that end, data has traditionally been employed to inform and optimize which voter receives which political communication. This process is what we refer to as the "targeting process" in this dissertation. Additionally, assessing the performance of content or message designs remains important to political parties, especially during campaigns (Baldwin-Philippi, 2019). For example, opinion polls have been used to identify which individuals to target with specific types of messages (Baldwin-Philippi, 2017, 2019) to reach the most responsive voters (Hillygus & Shields, 2009). Focus groups have been employed to evaluate the effectiveness of political messages, pinpointing the specific wording, stylistic elements, or framing that resonated most with the target audience (Hillygus & Shields, 2009), and to enable voters to discuss political actors or their standpoints (Newman and Perloff, 2004). Subsequently, the collected data is analyzed to identify patterns, preferences,

and sentiments among the electorate. Ultimately, the data is used to facilitate a deeper understanding of voter preferences and their likely behavior during an election.

Importantly, in phase three, the focus was on reaching the right group with the right message due to the growing fragmentation of voters and the diversification of their attention across various media platforms (Klinger et al., 2023, p. 106). Thus, the Internet offered parties channels to reach groups of citizens they would otherwise not reach. Following this, in phase four, the competition for voters' attention heightened and the focus shifted toward reaching the right individual voter with the right message.

2.1.1.2 Toward Individual-Centered Campaigns

Since around 2008, during the fourth phase, data has become invaluable in designing effective campaign communication. This phase is characterized by individual-centered campaigns, or data-driven campaigns (Roemmele & Gibson, 2020, p. 597). The transition into *data-driven* campaign communication was made possible through changes at three structural levels (Farrell & Schmitt-Beck, 2003; Roemmele & Gibson, 2020): an organizational level, a communicative level, and with regard to external actors.

Firstly, data-driven decision-making mechanisms, such as algorithms, form the core of modern campaign strategies. Analyzing data guides the process of targeting the right individual with the right message. This goes along with the growing perception that citizens are a commodity and political actors or platforms seek either their data, their attention, or ideally, both. Chadwick (2009, p. 23) highlights that structural changes allow for data being used for a different purpose than previously intended by those who produced the data. However, the availability of campaigning tools does not necessitate their use. Magin et al. (2017) found that during the 2013 national elections in Austria and Germany, political parties predominantly adhered to mass media-centric campaigning rather than leveraging Facebook's mobilizing potential, suggesting they had not yet shifted their focus toward target-group or individual-centered strategies.

A second structural change involves the focus on online platforms for message production and dissemination. Online platforms, particularly social media, have transformed political campaigns, affording parties more control over information dissemination and enabling direct communication with large audiences in various formats (Chadwick, 2009, p. 22). However, this shift reduces barriers to the dissemination of emotive or misleading political content (Roemmele & Gibson, 2020, p. 606). As businesses, social media platforms favor emotionally charged speech to keep users entertained and engaged on their platforms, as they prioritize financial gain over enhancing democracy (Klinger et al., 2023, p. 41).

The third level involves the potential for external actors to interfere with campaign communication to manipulate political agendas and public opinion. This represents a transfer of power from traditional political actors, who typically set the public agenda (Bradshaw & Howard, 2018), to new actors who may not prioritize the best interests of citizens. Notable examples include foreign interference in the 2016 US presidential campaign and the 2016 Brexit referendum (Bradshaw & Howard, 2018; Cadwalladr, 2017) where unconventional tactics such as sending dark ads or engaging in trolling disrupted the campaigning landscape (Roemmele & Gibson, 2020).

However, such disruptions not only impact the campaign environment but also have broader implications for democracy, thus affecting citizens. While I will delve into these implications in detail in a subsequent section, I wish to highlight that structural conditions shaping the individual-centered phase of political campaigns may present challenges for citizens from both deliberative and participatory democratic perspectives. For example, while narrowcasting political messages to politically engaged citizens may benefit the candidates, it can be detrimental to democracy (Klinger et al., 2023, p.111) due to the uneven distribution of information, potentially limiting political participation among citizens.

2.1.2 Digital Campaigns and Democracy

When considering digital election campaigns, questions arise as to their impact on ideal models of democracy in the Western world. Here, two models of democracy are particularly informative for discussing how campaign communication has evolved in the era of digital, data-driven campaigns and their impact on citizens: Deliberative and participatory democracy.

Data in various forms provides political parties with a sophisticated toolkit for shaping their voter communication. Depending on their choices regarding the dissemination of political information, including what, how, and to whom, political actors may influence how citizens deliberate on a topic and whether they take (political) action. While citizens can also access information through the media, emphasizing the role of parties underscores their considerable influence and has sparked discussions about the health of democracy.

2.1.3 Parties and Information Access

Alongside the media, political parties also disseminate information and opinions into the public domain and thus facilitate political deliberation (Habermas, 2012, p. 135). According to Habermas' discourse theory, political parties are "central institutions of democracy" (Habermas, 2012, p. 513) that encourage citizens to form opinions and become

involved in the political and social decision-making process (Habermas, 2018). Often, this encouragement takes the form of political advertisements as a form of political communication (Kaid, 2006). In these advertisements, political parties have the discretion to decide which positions to prioritize and which to downplay. Furthermore, they can give attention to less influential groups of citizens in equal measure as to positions or interests stemming from more powerful sources (Odzuck & Günther, 2022). Hence, political parties hold considerable discursive power. The emergence of internet platforms as deliberative forums has sparked optimism because, unlike traditional one-way communication, these platforms enable citizens to engage in conversations (Chadwick, 2009, 2013). Public deliberation enhances citizens' political competencies, as it exposes them to diverse viewpoints and supports them in making informed decisions (Escobar, 2017; Mutz, 2006). Therefore, it is crucial to delve into how citizens are affected by the information environment from the perspective of participatory democratic frameworks.

2.1.4 Digital Infrastructures and Information Access

Beyond political actors, digital infrastructures also impact citizens' access to information. Balkin (2004) asserts that digital technologies contribute to realizing a democratic culture of participation in an information society. What defines a democratic culture is not merely democratic governance, but democratic participation, wherein everyone has an equal opportunity to engage in the processes of meaning-making (Balkin, 2004). For this to be realized, citizens require access to information. While technologies provide the means for participation, they also provide opportunities for control, potentially limiting participation in democracies. This is because digital infrastructures and technologies, such as platforms or algorithms, determine who has access to which information and the level of attention given to various topics (Klinger et al., 2023). Algorithms exert considerable societal influence by categorizing individuals and predicting their future behaviors (König & Wenzelburger, 2020). Consequently, this shapes citizens' information environments, influencing the information they encounter and the choices presented to them. For example, an analysis of the algorithmic distribution of COVID-19 information across different browsers highlights disparities between personalized and non-personalized search engines, as well as variations in the suggestion of government-related information versus alternative news sites (Makhortykh et al., 2020). For citizens, this implies that digital infrastructures could exacerbate structural inequalities regarding information access. This inequality poses a challenge for citizens because, despite these changes, they are still expected to fulfill their democratic role by remaining informed.

2.1.5 Citizens and Access to Information

In the past, political parties purchased advertising to reach undifferentiated and large audiences. However, the current trend is toward targeting narrower audiences,

a phenomenon that leads to a fragmentation of public discourse and is, therefore, a concern from a deliberative democratic standpoint, in line with Habermas' deliberative ideals (Habermas 2009, p. 157). However, I argue that the trend toward narrower audiences or individuals poses concerns for citizens from a participatory perspective. This is because informational inequalities are amplified when election campaigns occur on platforms that combine political content with personal voter data to disseminate political messages (Klinger et al., 2023, p. 111). Informational inequalities or information asymmetry mean that some voters receive certain information while others do not. However, the concern is not solely about having or lacking exposure; it also involves how frequently and in what context political topics are presented to citizens. While the extent of information asymmetries and their real-life implications are yet to be determined, there are indicators that information asymmetries during political campaigns are present. One of the few studies examining the supply side of targeted ads on Meta revealed that individuals with lower education levels, females, and those younger than 24 years are more costly for political parties to target than other audience segments (Votta et al., 2023). As a consequence, these groups of people are likely to receive less political information via Meta, especially from political parties that lack financial means. This also implies that the decision-making process becomes more challenging for certain citizens due to these amplified structural inequalities in accessing information in DDC. Furthermore, certain segments of voters may be excluded based on data, depriving them of the opportunity to develop political interests or opinions. During periods of voter volatility, citizens must be well-informed about the positions of political parties, or the issues they perceive as most important. However, to be well informed, citizens must first have access to this information. DDC, however, may structurally impact open and equal communication because some citizens are included, while others are excluded (Odzuck & Günther, 2022). The often-idealized notion of the informed and politically engaged citizen becomes challenging to achieve in this context, especially for those who are excluded.

The access or lack thereof to information subsequently influences the extent to which citizens can meaningfully participate in politics. Participation by partially uninformed citizens may potentially lead to an unstable political system (Crozier et al., 1975). Political participation holds significance not only for politics and policy-making but especially for citizens themselves. Through participation, citizens can develop socially and politically (Pateman, 1970). By seizing the opportunity to participate in politics, citizens not only cultivate a sense of agency but also refine their preferences (Escobar, 2017). However, political campaigns often capture the attention of those citizens who are already politically and ideologically engaged (e.g., Verba et al., 1995), rather than those who are disinterested or politically disengaged. Naturally, citizens do not only

obtain political information on social media platforms, and even when they do, there is evidence indicating that incidental news exposure also reaches less politically engaged audiences (Kim et al., 2013). However, this suggests that politically active citizens seek out political information, rather than adopting a passive "the news finds me" approach. Research has demonstrated that individuals who are algorithmically categorized as being interested in politics receive more political content in their Facebook newsfeeds (Thorson et al., 2021). Consequently, concerns are particularly prevalent for individuals who may not be categorized as politically interested based on certain black-box algorithms but who would benefit from exposure to various political positions to ignite their interest in politics.

Further concerns have arisen because the personalization of political content for citizens has been touted as a tool for electoral success. These concerns are addressed in the following section.

2.2 Data-driven Campaigns and Personalization

To grasp this critical aspect of personalization, it is important to define DDC beyond the traditional categorization of being either a tool for success or a threat to privacy. The definition of data-driven campaigning by Dommett et al (2023, p. 13) provides some context:

“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.”

This definition highlights that DDC essentially centers on three key elements: "data," "driven," and "campaigning," highlighting the involvement of various forms of data (e.g., canvassing data, social media data), a range of decisions informed by this data (e.g., audience segmentation, message testing), and diverse campaigning activities (e.g., voter persuasion, fundraising) (Dommett et al., 2023). Several data-driven campaigning activities exist. The terminology selected for each activity can indeed highlight certain aspects, subtly suggesting implications that may emphasize risks over advantages of data-driven campaigning. One of the most discussed practices in the literature is political micro-targeting. This involves strategically addressing persuadable voters and mobilizing them with targeted messages (Barocas, 2012; Kruschinski & Haller, 2017). Essentially, the goal is to ensure that the "right" message

reaches the right voter while excluding the "wrong" voter. The determination of who is considered right or wrong is based on data. Some scholars adopt a broader and more technological perspective on political micro-targeting by emphasizing algorithmically enhanced targeting (König, 2020). Similarly, online behavioral advertising (OBA) refers to advertisers monitoring individuals' online behavior and using this information to tailor targeted advertisements (Boerman et al., 2018). Psychological targeting involves tailoring persuasive appeals to the psychological traits of individuals (Matz et al., 2017; Tufekci, 2014), such as their level of extraversion or introversion. Similarly, decision-based voter segmentation refers to using individuals' attributes (e.g., their issue position) as inputs to create and develop the campaign strategy (Phillips et al., 2010). These related activities vary in their reliance on data, how informed or data-driven they are, and how they are utilized as strategic inputs in campaigns. Notably, certain terms are prominent in political contexts (e.g., political micro-targeting), while others are more commonly used in commercial contexts (e.g., online behavioral advertising). The terms *psychological targeting* or *psychometric targeting* may hint at more covert data-driven campaigning practices, as individuals' psychological makeup is not readily apparent or observable. The methods used to gather this latent information could thus be perceived as more invasive. It is precisely this term that garnered significant attention in 2018 and shaped the public narrative around data-driven campaigning. Cambridge Analytica, a consultancy firm, used data points linked to voters' personality profiles, such as their extroversion or agreeableness, to assist political parties in their campaign efforts during the 2016 U.S. presidential election and the Brexit referendum (Baldwin-Philippi, 2019). The promise was to target the right audience with the right message at the right time. The psychometric data for these activities originated from Facebook users who took personality quizzes, unwittingly granting access to other people's profiles in the process (Cadwalladr, 2018). In total, the data of approximately 87 million Facebook users was shared and used without their consent (Hu, 2020; Kang & Frenkel, 2018). While campaigning on social media has been done before, notably in the 2008 Obama campaign (Baldwin-Philippi, 2017), the large-scale collection of data to influence politics alarmed many. When this information became public, it marked a turning point in the discussion on data-driven campaigning, highlighting that data had been used for a "different purpose than previously intended by those who produced the data" (Chadwick, 2009, p. 23).

In the following section, I explore the implications for political parties of the emergence of data-driven campaigning on social media platforms and delve into the debate regarding the health of democracy. Subsequently, I discuss citizens' digital campaign competence.

2.2.1 The Intended Effects: Personalization as Success for Parties

The rise of data-driven campaigning and the ability to personalize political campaign messages has been accompanied by a distinct emphasis on the potential benefits for political parties. The most frequently discussed advantages of DDC include its relative cost-effectiveness, its efficiency, and the advantage it might offer parties to sway and engage voters (Dommett et al., 2022; Zuiderveen Borgesius et al., 2018).

DDC can serve as a cost-effective strategy for political parties by enabling goal-oriented allocation of campaign budgets. Through DDC, parties can effectively reach voters who are likely receptive to their political messages (Zuiderveen-Borgesius et al., 2018). Thus, by focusing on engaging party supporters, segments of the electorate unlikely to support the party can be omitted from outreach efforts. Leveraging data to determine whom to include or exclude in the campaign process offers the advantage of preventing the wastage of campaign resources (Metcalf et al., 2019). DDC can offer smaller political parties with limited campaign resources an alternative approach (Zuiderveen-Borgesius et al., 2018) compared to costly billboard ads, for example. However, recent research (Votta et al., 2023) on ad targeting options revealed disparities in charges by Meta for the same service offered to political parties. Therefore, although DDC can facilitate smaller political parties in distributing their messages and broadening public awareness beyond mainstream political perspectives, its (cost) efficiency is subject to debate. Some argue that DDC might perpetuate the advantages of larger political parties, given their typically greater initial resources (Kefford et al., 2022).

Data-driven campaigning strategies show promise as effective tools for political parties because they facilitate the testing and refinement of political ads and messages (Baldwin-Philippi, 2017). To achieve this, the online engagement of users with ads can be evaluated, and the content or design adapted if necessary (Dommett et al., 2023). Furthermore, these strategies enable parties to tailor messages to citizens. For instance, research indicates that aligning advertising messages with an individual's personality has the potential to influence their political attitudes and voting intentions (Zarouali et al., 2020). Furthermore, regardless of their political affiliation, voters perceive political advertising as more informative and persuasive when it addresses issues important to them, thereby increasing the likelihood of voting for the advertised party (Chu et al., 2023). Thus, DDC minimizes uncertainty regarding whether a particular message achieves its intended effect, such as influencing voting intentions. Finally, DDC is considered effective because by using an optimized political message or advertisement, political parties can disseminate their message without dependence on the news cycle. This autonomy allows them to operate independently of traditional gatekeepers (Gibson & Roemmele, 2020, p. 598). However, circumventing conventional gatekeepers

shifts power toward technological infrastructures. These infrastructures, provided by platforms such as Meta's Facebook and Instagram, Google, or X (formerly "Twitter"), determine the accessibility of data for monitoring, assessing, and disseminating targeted political communication (Gibson & Roemmele, 2020). Thus, the dependence of political parties on technological intermediaries is characterized by power asymmetry because these intermediaries dictate the structure of the infrastructure and, consequently, the options available to political parties (Kleis Nielsen & Ganter, 2018). These structural power imbalances can influence and shape political discourse (Kreiss & McGregor, 2018, p. 174), a concern that, until recently, was not prominent in political campaign communication (Roemmele & Gibson, 2020, p. 600).

2.2.2 Strategic Targeting and Testing in DDC

Political campaigns have consistently relied on data to inform their campaigning practices in one way or another (Baldwin-Philippi, 2019; Hersh, 2015; Kefford et al., 2022). Thus, some scholars contend that there is nothing inherently new about DDC (see e.g., Dommert et al., 2023), but certain strategies now exist to refine the personalization of campaigning messages. Two types of decisions are informed by data during political campaigns: targeting, or formative, decisions and testing, or evaluative, decisions. The data-formative category employs data to inform actions within the campaign, such as deciding on campaigning or targeting strategy. Conversely, the data-evaluative category employs data to evaluate campaign activities, aiming to optimize the campaign into its most effective format (Dommert et al., 2023). According to Baldwin-Philippi (2019, p. 4), these practices of targeting and testing appear to be largely an extension of earlier campaigning practices which have been refined alongside the advent of powerful technological intermediaries like Meta and Google. This refinement is attributed to the abundance of data points, surpassing what is typically obtained from traditional opinion polls that informed campaigns, common in earlier eras of political campaigns.

2.2.2.1 Options for Strategic Targeting and Formative Choices

Strategic testing can be used to refine targeting strategies by, for example, crafting a political message that resonates with a specific voter segment. The directional input required for this formative choice often stems from a common marketing strategy referred to as narrowcasting or market segmentation (Kefford, 2021). Various data points are accessible to political parties, including publicly available information like citizens' ages or inferred data such as their behavioral patterns. These can be used to determine the appropriate message for the right voter segment (Dommert et al., 2024, p. 48). Furthermore, using this data, political parties can identify citizens likely to support their cause, those who likely need persuasion, and potential non-voters.

Based on this information, political actors can make strategic decisions about whom to reach out to, thereby optimizing their parties' resource allocation and avoiding unnecessary expenses.

2.2.2.2 Options for Strategic Testing and Evaluative Choices

Political parties employ numerous strategies to evaluate their campaign activities (Dommett et al., 2023). They can obtain real-time feedback on political content by monitoring responses, including clicks on ads and the opening of emails. Additionally, they can track whether donations increase following the airing of specific ads. A widely used approach for strategic message testing is A/B testing (Karpf, 2016). In political campaigns, A/B testing involves presenting variations of content (e.g., ads or messages) or designs to audiences, and then comparing their performance metrics to determine the most effective version. This iterative process refines campaign strategies by identifying elements that resonate with the target audience. Future ads and political content are based on past responses through the analysis of ad engagement metrics (Karpf, 2016). Barack Obama's campaign team employed A/B testing for website and email content to maximize donation accrual (Kreiss, 2012). They monitored voter responses to various messages, implementing the most successful combination of text and design, and enabling them to accumulate donations amounting to millions of dollars (Bashykarla et al., 2019). Another example is the successful use of A/B testing during the 2016 Brexit referendum. The campaign director for "Vote Leave" stated that they surveyed voters and categorized them into three groups: those likely to vote "remain," those likely to vote "leave," and those who were undecided. They then focused their campaign efforts on undecided voters, testing five narratives to persuade them of their cause (Bashykarla et al., 2019). For the undecided voters, the message "take back control" emerged as the winner. This message may have resonated with them because it addressed themes of autonomy and reclaiming control from external groups, mirroring their fears or uncertainty about the UK's relationship with the European Union. Might individuals' awareness of the strategic exploitation of their fears in A/B tested ads have prompted them to pause, reconsider, or even modify their reactions during the Brexit referendum? While a conclusive answer to this question is currently unattainable, the use of DDC introduces specific conditions for citizens that could potentially result in unintended consequences for democracy.

2.2.3 The Unintended Effects: Personalization and its Impact on the Health of Democracy

The professionalization of campaign communication relies heavily on citizens' data, making it a valuable commodity for political parties and social media platforms alike. To provide a deeper understanding of the impact of DDC on citizens, I elaborate on

the influences and their consequences using the framework established by Kruschinski and Haller (2017). This framework examines constraints on campaign strategies and tools across three levels: an external (macro) dimension, an internal/organizational (meso) dimension, and an individual (micro) dimension. Since some aspects of this framework more explicitly affect citizens compared to others, I focus on those rather than all possible constraining aspects.

2.2.3.1 Macro-level Influences

On a macro level, the personalization of political campaigns influences citizens based on legal foundations. While political parties employ tools and strategies commonly used in commercial advertising, only recently have efforts been made to regulate data-driven campaigns more effectively (Gibson et al., 2023). The 2018 General Data Protection Regulation (GDPR) serves as a crucial EU law to regulate these campaigns (GDPR, n.d.). More recently, the Digital Services Act (DSA) and the Digital Market Act (DMA) aim to limit the extent to which citizens receive harmful content. Gibson et al (2023) observe that the DSA is particularly pertinent to DDC, as it mandates greater transparency in targeting techniques and data processing (p. 9). They conclude that this impacts the potential for strategic targeting of political parties. Furthermore, building on both GDPR and DSA, a new EU regulation regarding the transparency of political advertisements aims to limit the misuse of citizens' data (*Political Advertising Regulation*, 2023). These regulatory measures are timely, as until recently, there was a considerable lack of protection for citizens (Helberger et al., 2021). They are also crucial because political advertising is regarded as political speech, meaning that conventional fairness benchmarks used in commercial contexts do not apply (Helberger et al., 2021, p. 296). While exaggeration is often anticipated in product advertising, political advertising is typically expected to be factual and credible (Scammell & Langer, 2006). Hence, as **political advertising increasingly adopts commercial marketing tactics, citizens may struggle to determine the trustworthiness** and accuracy of political information disseminated through DDC.

2.2.3.2 Meso-level Influences

On a meso level, citizens are impacted by the technology and infrastructure used in data-driven campaigns. Social media platforms, essential for such campaigns, provide not only the necessary technological framework but also the data. These platforms connect political parties with voters based on profit motives because the algorithms employed on these platforms are geared toward revenue generation, often lacking transparency and oversight (Klinger et al., 2023). This implies that large corporations such as Meta increasingly impact how political content is targeted toward audiences. Therefore, the content that citizens see online may not necessarily reflect the best political argument but the political message that garners the most attention based

on metrics provided by the social media platform. Another challenge for citizens lies in the existing power asymmetry between them, political parties, and private market players in DDC (Kefford et al., 2022). This is because new technological infrastructures enable political parties to gather considerably greater amounts of information about citizens than the other way around. This phenomenon raises concerns regarding the **fairness and balance inherent in political discourse** expressed on social media platforms. Additionally, while it is hoped that the implementation of DDC on social media platforms might facilitate public debates by allowing more political parties to distribute their messages, Kefford et al (2022) argue that it is likely that power differences between parties will be simply maintained or even intensified.

2.2.3.3 Micro-level Influences

Lastly, on a micro-level, the unintended effects for voters of an increased professionalization of political campaigns encompass two aspects: **information asymmetry and privacy issues**. First, as mentioned earlier, informational inequalities, or information asymmetry, refers to some voters receiving specific information while others do not. The following example illustrates why information asymmetry is challenging for healthy democracies: Suppose a political party consistently promotes one of its three primary commitments (A) through ads, frequently or exclusively exposing Voter X to this particular commitment. Meanwhile, the other two commitments (B and C) are shown less frequently or not at all. The decisions regarding which content to show (or not) are based on an analysis of the citizen's data. As a result, Voter X may perceive commitment A as more important for the political party than commitment B or C. If other citizens are targeted with ads highlighting commitments B or C but not A, their perceived political reality is likely to differ from that of Voter X. As a result, social trust could diminish due to distorted political realities among various groups of citizens (Mazarr et al., 2019). Additionally, Bayer (2020) highlights that the absence of certain "meta-information" presents a challenge for citizens. She suggests that some individuals might encounter political ads or information snippets and opt only to read the headlines without delving deeper into the content. In this scenario, individuals are aware of an issue but refrain from exploring the information in further detail. This implies that political **parties preemptively deprive citizens of their choice** regarding whether or not to engage with a topic, thereby restricting their autonomy. Bayer (2020) terms this a "paternalistic distinction between citizens" (p. 10), which undermines the fundamental human right to information.

Second, in addition to shaping the information that voters receive, DDC presents a cause for concern regarding the possible (mis)use of citizens' data. Here, it is crucial to differentiate between the proper use and misuse of data. For example, using data about

online audiences helps political parties identify the digital channels used by target groups. Parties must know how to inform voters as this is their role as core democratic institutions (Habermas, 2012). For example, political parties need to be aware that while campaigning on Facebook remains a viable option due to its widespread usage, targeting voters under 24 would be more effective on Instagram (Newman et al., 2023, p. 12). This awareness is also essential for enhancing the effectiveness of their outreach (Klinger et al., 2023, p. 112). Arguably, it is in the interest of voters for their data to be used responsibly. However, it becomes problematic if their data is employed to treat them unfairly. In accordance with this, scholars emphasize the importance of individuals being aware and taking measures to protect themselves online, thereby minimizing their susceptibilities to data traces (Masur, 2020, p. 265). Being aware of how to protect one's privacy fosters trust. Furthermore, it reassures citizens that they can participate in their democratic institutions without concern about unfair treatment based on what they say online (Bennett & Oduro Marfo, 2019, p. 14). Importantly, privacy safeguards encourage engagement, enabling individuals to freely express their opinions, participate in civil society activities, engage in protests, and ultimately, vote. Thus, in line with the participatory theory of democracy, the **algorithmic classification** of citizens based on their data **may hinder or restrict citizens' participation** (Bennett & Oduro Marfo, 2019).

While the definition of a healthy democracy may be subjective, I contend that it is undesirable when citizens struggle to evaluate the trustworthiness of political information, find themselves disadvantaged against powerful entities like political parties and tech companies or are excluded from political information due to being deemed unworthy of campaign resources. Inclusion in the information flow is particularly critical for the health of democracies because citizens have the right to be informed. This implies that citizens should have access to information, regardless of whether they want this access or not. Without this information, citizens are restricted in their ability to utilize it effectively (e.g., making voting decisions). Hence, both **informational inequalities and participatory inequalities** should be considered when discussing the **health of democracy** in the context of DDC for citizens. In light of this, within this dissertation, I emphasize that alongside regulatory measures, it is essential for citizens to have Digital Campaign Competence to navigate the (un)intended influences of DDC.

2.3 Toward Competence

The previous section examined the evolving political information environment resulting from the growing prevalence of data-driven campaigning practices and highlighted implications such as information asymmetry for citizens. In the following section, I introduce the concept of "Digital Campaign Competence" as a form of citizen agency to navigate data-driven politics. Firstly, I define the term and position it at the intersection of political and persuasive communication literature and theories. Subsequently, I explore the significance of Digital Campaign Competence (hereafter DCC) in relation to the threats and benefits posed by data-driven campaigning for both citizens and society at large.

2.3.1 The Importance of Citizen Competence in Democracies

Competence in democracies can be viewed from multiple perspectives. In political science, there is an emphasis on the public's need to be well-informed about politics to act in their best interest (Jackson & Marcus, 1975, p. 93). From a conceptual standpoint, knowledge has traditionally been considered the determining factor in defining a competent citizenry. While a highly informed electorate is not the most important precondition for a functioning democracy, the quality of political representation benefits from citizens who are generally aware of current political issues (Althaus, 2003; Carpini & Keeter, 1996). However, until the 1980s, the study of citizen decision-making primarily focused on the political knowledge of the individual citizen (Kuklinski et al., 2001), with many studies concluding that most people have limited political knowledge and interest, affecting their political decision-making abilities (Converse, 1964). This painted a bleak picture of citizens.

In line with this perspective, Zaller (1992) and Norris (2000) proposed that the politically sophisticated (those with more knowledge) are better equipped to make political judgments than less politically sophisticated or less engaged citizens. Traditionally, political competency, also known as political sophistication, political expertise, or factual knowledge (Kuklinski et al., 2001, p. 286; Luskin, 1987) has been assessed by demonstrating a correlation between citizens' beliefs and political preferences or retaining relevant facts from political arguments (Kuklinski & Quirk, 2001). However, recent scholars have criticized the emphasis on political knowledge in determining a competent electorate (Cramer & Toff, 2017). Besides facts, citizens rely on their personal experiences to interpret political information (Cramer & Toff, 2017, p. 756). This indicates that citizens refer to political facts while also incorporating personal evaluations of political information. The authors argue that traditional evaluations of citizen competence, often centered on measuring factual knowledge, frequently

overlook this aspect of expressing evaluations, which is essential to being an informed citizen. Furthermore, the predominant focus on knowledge creates a disconnect between political science and other research fields that also discuss the competencies necessary for an engaged citizenry in participatory democracies.

More recently, scholars have broadened their focus beyond political sophistication as an important competence in democracies. Due to the ubiquitous mediatization of politics (e.g., Strömbäck, 2008; Strömbäck & Esser, 2014) media literacy scholars have long recognized that a competent citizenry must be able to critically analyze the media messages they encounter daily (e.g., Livingstone, 2004). As such, media literacy is considered a political core competency because citizens critically assess the information that serves as the foundation for their political involvement (Mihailidis & Thevenin, 2013, p. 4). Through this process, citizens not only acquire information but also question authority by evaluating the information they receive. To obtain news, European citizens continue to rely on online formats including social media, rather than TV or print, except in France (Newman et al., 2023). The source plays a crucial role for citizens because it signals to them the level of persuasion and credibility they can expect in these messages (Scammell & Langer, 2006). Furthermore, by leveraging the affordances of social media, political messages are frequently delivered to citizens through algorithms, which may shape citizens' reactions to these political messages based on factors such as their level of algorithmic awareness (Gran et al., 2021). In this regard, **citizens require both political and technological efficacy** (Hoffman & Schechter, 2016) in a media landscape driven by technological advancements.

Similarly, Masur (2020) views online privacy literacy as a means to become "agents of social change" (p. 265) and thus "competent participants of social life" (p. 262). His model of online privacy literacy extends beyond privacy knowledge as a decisive factor and also includes privacy-related reflection abilities and privacy and data protection skills. This implies that in the context of data-driven election campaigns, a competent citizenry would not only possess specific knowledge but also engage in conscious evaluations. Additionally, citizens should be capable of developing cognitive resistance or employing other coping responses (Boerman et al., 2012; Rozendaal et al., 2011) to minimize susceptibilities to unwanted (political) persuasion. To **enhance citizens' autonomy** in decision-making within a data-driven campaigning context, this dissertation asserts the necessity for citizens to **develop** not only their **knowledge** but also their **evaluation** capacity and **skills**.

This conceptual structure, centered on three pillars—knowledge, evaluation and skills—is commonly employed in various contexts exploring competence (for an overview, see *EU Digital Education*, 2020, p. 2; Salman et al., 2020). Consequently, it will also be adopted in this dissertation, which focuses on citizens' DCC.

2.3.1.1 *The Difference Between Competence and Literacy*

Competence is a "fuzzy" concept, characterized by a multidimensional framework rather than a unidimensional one (Delamare Le Deist & Winterton, 2005, p. 29). At its core, competence can be understood as the inherent qualities in an individual that enable them to execute a specific task (McClelland, 1973). Its diverse application across different contexts has led to the interchangeable use of numerous terms to define it (Salman et al., 2020); one such term is "literacy." In the following section, I will explain the difference between competence and literacy and how they are used within this dissertation.

The literature suggests that literacy is equally challenging to define. This becomes apparent as even within specified contexts, achieving a universally clear conceptualization remains elusive. Examples such as political literacy and advertising literacy are both pertinent to this dissertation. The term "political literacy" is at times considered synonymous with civic competence (Cassel & Lo, 1997, p. 317). Political literacy refers to cognitive aspects like knowledge and understanding, which are essential for an informed citizenry (Denver & Hands, 1990, p. 263). This perspective implies that political knowledge is equated with political literacy, which in turn signifies political competence. Similarly, advertising literacy is sometimes referred to as "persuasion knowledge" (Livingstone & Helsper, 2006), underscoring the idea that cognitive abilities are synonymous with literacy (Livingstone & Helsper, 2006). According to Friestad and Wright (1994) persuasion knowledge refers to an individual's recognition of the strategies, motives, and tactics used to influence consumer behavior. Advertising literacy, as defined by Malmelin (2010) is the ability to comprehend, identify, and evaluate advertising messages. Hence, advertising literacy aligns with the context of persuasion knowledge within the advertising domain. More recently, studies have begun to conceptualize advertising literacy alongside another crucial dimension, namely attitudinal literacy (Rozendaal et al., 2011, 2013).

Therefore, literacy is most commonly associated with knowledge, occasionally with attitudes or evaluations, and less frequently with skills. While recognizing that these conceptualizations may vary depending on the context, in this dissertation, the distinction between literacy and competence lies in the additional emphasis on skills, alongside knowledge and evaluation, within competence.

2.3.2 *Additional Forms of Digital Competencies*

In the same way that digital spaces are multi-faceted, citizens' competencies to navigate these spaces consciously and critically can manifest in various forms. As I will argue in the following section, DCC is situated at the intersection of various literature

and extends beyond citizens' political sophistication. Hence, I will briefly mention other works that focus on the concept of conscious and critical citizens.

Previously, I discussed media literacy because citizens receive political information through various media channels, and advertising literacy because political advertisements are among the most common forms of political information during election campaigns (Kaid, 2006). Given that political actors aim to persuade citizens to vote for them, citizens must possess persuasion knowledge. Furthermore, since political information is tailored to citizens on social media or through search engines, algorithmic literacy, which involves engaging with algorithms consciously and critically (Gran et al., 2021, p. 1781), is considered an essential competency of citizens. Figure 1 shows an overview of concepts that inspired the conceptualization of citizens' DCC.

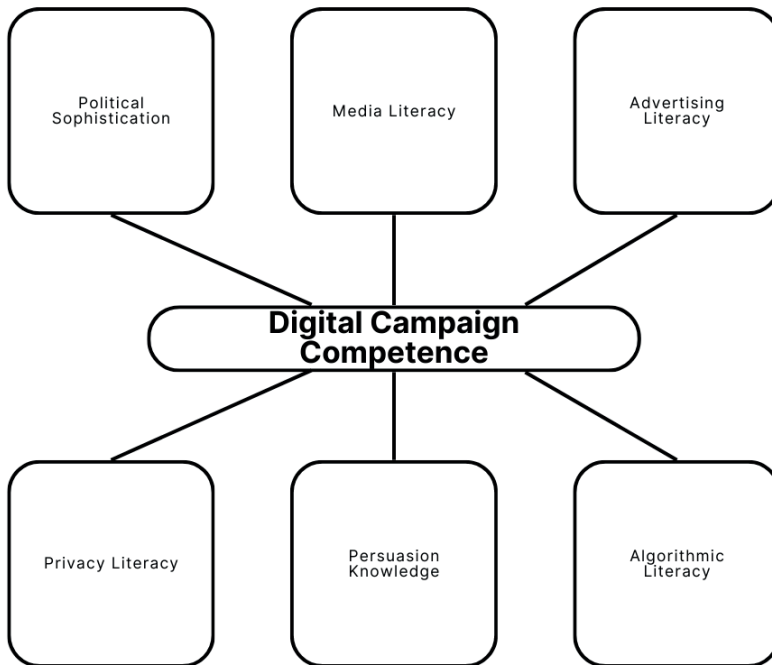


Figure 1. Overview of Concepts Relevant for Digital Campaign Competence

2.3.3 Digital Campaign Competence

While difficult to define, campaign competency is a valuable idea in understanding how political campaigns have evolved and how citizens must adapt to these advancements. It represents an innovation to traditional views on literacy, as I draw upon and link established insights from various literatures, such as the significance

of persuasion knowledge in managing advertisements. I then relate these insights to political campaigns and introduce a contemporary dimension by focusing on *data-driven* campaigns. The subsequent section delves into what competence should entail within the realm of data-driven elections. As previously noted, DCC is likely multidimensional, comprising (a) understanding, (b) evaluation, and (c) skills as distinct dimensions that mutually influence one another.

2.3.4 What is Digital Campaign Competence?

As Figure 2 shows, DCC follows a commonly employed conceptualization of competence comprising three pillars (see Salman et al., 2020).

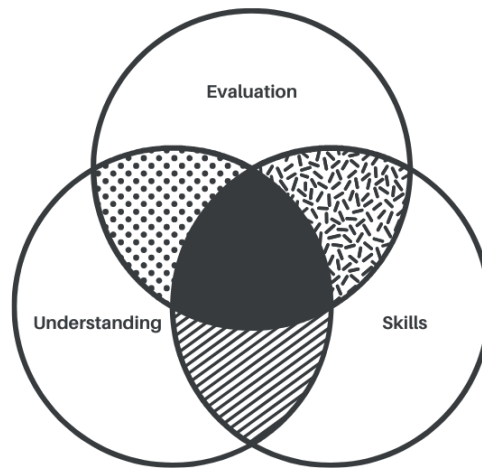


Figure 2. Conceptual Depiction of Digital Campaign Competence

Hence, while the foundation of this **conceptualization is not new, the content and context are**. Ultimately, competence should empower citizens to make decisions that align with their best interests (Delli Carpini & Keeter, 1996). Delli Carpini and Keeter (1996) originally discussed competence in the context of political knowledge, but its extension to the DDC context appears appropriate. In the following section, I will elaborate on the three components: understanding, evaluations, and skills.

2.3.4.1 The Components of Digital Campaign Competence

Conceptual Understanding

Conceptual understanding pertains to citizens' awareness and knowledge of data-driven campaigning strategies, tactics, and implications. Having this understanding is crucial because citizens are typically unaware that their data enables these

campaigning practices in the first place. Without awareness of current developments, citizens remain uninformed about political happenings, their contributions, their perspectives on these matters, and ultimately, whether they wish to act.

Research indicates that citizens possess limited knowledge about data collection practices and their consequences (Gagrčin et al., 2021), specifically regarding online behavioral advertising (Boerman et al., 2017; Smit et al., 2014). As DCC intersects with various disciplines, understanding the tactics and strategies employed in DDC, as well as their implications, entails **multiple components**. Citizens' conceptual understanding of DDC may encompass broad categories such as a general understanding that personalized advertising is a common political advertising strategy or an understanding that data points used in DDC originate from diverse data sources such as social media (Dommett et al., 2024). Specifically, online behaviors like interactions with online content leave traces that can be collected and inform data-driven practices (Boerman et al., 2017). Lastly, the collection of private user data for informing DDC is influenced by how privacy settings are configured, thus affecting what data can be collected for DDC purposes (Morimoto, 2021). However, the availability of these data points for political parties depends on the data protection laws in respective countries and, of course, the campaign resources (Dommett et al., 2024; Kruschinski & Haller, 2017).

In addition to these overarching considerations regarding understanding DDC, there are more specific aspects that could enhance the awareness of citizens, thus influencing their perceptions of DDC and its implications. Building upon the original Persuasion Knowledge Model (Fristad & Wright, 1994), the authors of the Persuasion Knowledge Scales of Sponsored Content (Boerman et al., 2018) extended its application to sponsored advertising and examined the following knowledge dimensions: (1) recognition of sponsored content, (2) understanding of selling and persuasive intent, (3) recognition of the commercial source of sponsored content, (4) understanding of persuasive tactics, (5) comprehension of the economic model, and (6) self-reflective awareness of the effectiveness of sponsored content. This scale proves useful in exploring similar dimensions that are significant in the DDC context and thus for competence.

For example, citizens could be made aware of the persuasive intent behind using data-driven advertising tactics or the structural (i.e., economic or legal) constraints political parties encounter when employing DDC. Such understanding would aid citizens in assessing the extent to which they might be influenced. While social media platforms were initially envisioned to level the playing field among various actors, researchers argue that they often reinforce existing power imbalances without

fundamentally altering trends (Kefford et al., 2022). In the context of DDC, this implies that the advantages enjoyed by larger political parties over smaller ones persist, partly because obtaining fine-grained data is challenging and costly (Dommett et al., 2024; Gibson & McAllister, 2015). For citizens, this translates into certain political parties having a structural advantage in reaching their audience. This advantage may arise from having greater financial resources to invest in data-driven advertising or from targeting a mainstream audience, which is typically more cost-effective than reaching a niche audience (Votta et al., 2023). Hence, whether citizens are categorized as niche audience, or not might affect which political ads they receive.

Some scholars posit that as citizens gain an understanding and awareness of certain campaigning practices, political parties might hesitate to use these practices out of concern that citizens will reject them and penalize the parties in their voting decisions (Odzuck & Günther, 2022, p. 526). However, this assumption implies that an increased understanding of data-driven targeting practices results in negative evaluations. Studies have arrived at different conclusions on this matter. A study by Dobber et al. (2019) finds that citizens with more knowledge of behavioral targeting by political parties tend to have more positive evaluations of this practice. Conversely, a study by Smit et al. (2014) demonstrates the opposite in the context of online behavioral targeting. Furthermore, citizens' heightened awareness of the strategic use of advertising is linked to negative perceptions of ads (Fowler et al., 2022, p. 152). The precise relationship between conceptual understanding and evaluations remains a subject of debate. Nevertheless, the persuasion knowledge literature consistently recognizes these two as interlinked. Understanding persuasive intent is deemed a crucial step before evaluating targeted advertising (Boerman & van Reijmersdal, 2016; Ham, 2017; Hudders et al., 2017; Kirmani & Campbell, 2004). Thus, evaluations are, alongside understanding DDC, another crucial dimension for the digital campaign competence of citizens.

Evaluative Perceptions

In this dissertation, what Friestad and Wright (1994) termed a "change-of-meaning" process—initiated when individuals become aware of persuasive strategies — is referred to as "evaluative perceptions". Citizens' attitudes toward sponsored content are typically measured in terms of skepticism, dislike, and appropriateness (Boerman et al., 2018; Hudders et al., 2017; Rozendaal et al., 2011). To enable a broader conceptualization that encompasses attitudes as well as moral assessments (Hudders et al., 2017), I use the term evaluative perceptions. Furthermore, insights into citizens' evaluations of tailored political advertising are limited and somewhat outdated. Turow et al. (2012) found that Americans generally view this practice negatively. One of the

few studies assessing citizens' attitudes toward online personalization, conducted by Kozyreva et al. (2021), revealed that citizens' attitudes toward personalization vary among countries with different data regulation frameworks. Citizens in the UK, Germany, and the US tend to dislike personalization in politics but are more accepting of it in commercial contexts. However, there is a lack of investigation into the factors that influence these attitudes.

Skills

Given the multifaceted nature of DDC, individuals could develop various skills to empower themselves in data-driven campaigns, thereby enabling them to act in their interests. The Persuasion Knowledge Model (PKM; Friestad & Wright, 1994) asserts that citizens need some understanding of persuasive intent to assess its appropriateness and determine a response strategy. Similarly, Kuklinski and Quirk (2001, p. 293) argue that having high-quality opinions precedes acting in one's own interest. Applied to the context of DDC context, Barocas (2012) found that increased awareness of political micro-targeting, as a form of data-driven political methods, has resulted in varied behaviors.

It is important to note that I differentiate skills from response strategies or political behavior. Skills, in my view, enable individuals to apply specific knowledge. Therefore, possessing skills provides an "increased opportunity" for engagement (Campbell & Kwak, 2010, p. 845). Theoretical frameworks explaining when citizens act include the Social Exchange Theory (Emerson, 1976) and Implementation Intentions (Gollwitzer, 1993). Citizens assess social exchanges (e.g., personal data for political information) in terms of costs and rewards. Furthermore, associating certain situations with an intention to act helps citizens perform certain behaviors. While I will discuss a selected range of skills that might be important in the context of DDC for citizens (Chapter 7), it is crucial to note that this does not represent an exhaustive list of skills. The following figure illustrates how the components of DCC may influence one another and political behavior.

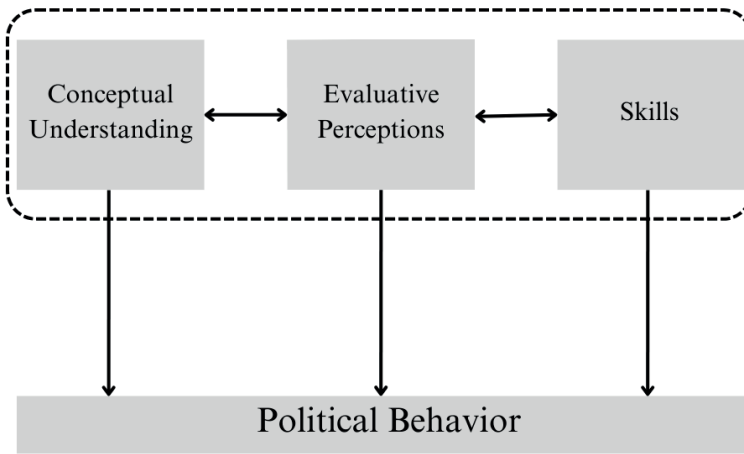


Figure 3. Conceptual Model of DCC Components and Political Behavior

A conceptual understanding of DDC provides citizens with an informational foundation by, for example, making them aware that political parties can use their data to craft political ads and determine who should receive their information, and who should be excluded. Evaluative perceptions represent a subsequent step, involving citizens assessing the relevance or appropriateness of DDC. Lastly, citizens require skills to either engage more deeply with DDC or limit their exposure to it. This might involve using more or less privacy-enhancing technology. These components—understanding, evaluation, and skills—may influence actual political behavior, leading to increased engagement with political ads or avoidance of them. As DCC aims to **empower citizens to consciously decide** whether to engage with DDC, this final section summarizes the potential benefits and threats of data-driven campaigning strategies for citizens, highlighting the need for citizen **empowerment through competence**.

2.3.5 Benefits and Threats of DDC for Citizens

While DDC is often perceived as a potential threat to citizens in scholarly research and wider public debate, there are arguably some benefits that it might offer citizens (Zuiderveen Borgesisu et al., 2018). However, both recognizing the potential benefits and understanding the threats require citizens to have some awareness of the topic.

Citizens may perceive DDC as a threat due to its implications of privacy invasion (Zuiderveen Borgesisu et al., 2018; Dommett et al., 2022). The tracking and storing of online behavior, coupled with the amalgamation of personal data, theoretically enables the exploitation of personal vulnerabilities. Consequently, this data could be used in future advertisements without citizens realizing that their past interactions

have led to such targeting. Another potential threat is voter manipulation, wherein political parties could customize their content for specific audience segments, either to engage them or dissuade them. Lastly, ignoring voters (Zuiderveen Borgesius et al., 2018) or voter suppression (Dommett et al., 2022) is cited as a threat. Political parties might intentionally exclude certain individuals under the assumption that they are non-persuadable voters (Gorton, 2016).

While these concerns are valid, the discourse on the use of data in political campaigns and the broader impact of technological developments on democracy have been somewhat one-sided, predominantly focused on the threats (Barrett et al., 2021). The potential advantages of DDC, such as delivering more relevant content for citizens and engaging politically disinterested citizens who typically avoid traditional media but can be reached through social media, are less frequently discussed (Dommett et al., 2022; Zuiderveen Borgesius et al., 2018). This tendency to highlight threats rather than benefits likely impacts public perceptions of DDC. Framing can be employed to define problems and solutions, providing individuals with the foundation for making moral judgments (Entman, 1993). Applied to the DDC context, this suggests that information about DDC, when framed positively or negatively, accentuates benefits or risks. Thus, it is likely that this influences the opinions and behaviors of citizens.

The goal of DCC is not merely to shield individuals from the threats posed by DDC, but rather to empower them to make informed evaluations about how they choose to engage with data-driven political information. This entails **harnessing** the intended **positive outcomes of DDC** while also being able to **mitigate any unintended negative consequences** for citizens. This dissertation thus investigates citizens' *understanding* of data-driven campaigns (RQ1), the *interaction* between citizens' *understanding and evaluation* of data-driven political advertising (RQ2), and lastly, strategies to influence citizens' *understanding, evaluation, and skills* (RQ3).