

1. Introduction

In the world we know, communications and decisions trivially take up a certain space and time of their own, they consume an energy of their own, they require a separate expenditure of organizational capacities, and so on. [...] In addition, the communications media intervene with a selectivity of their own in [the] social distribution of knowledge. The structures of the public sphere reflect unavoidable asymmetries in the availability of information, that is, unequal chances to have access to the generation, validation, shaping, and presentation of messages. Besides these systemic constraints, there are the accidental inequalities in the distribution of individual abilities. The resources for participating in political communications are in general narrowly limited. This is evident whether one examines the time available to individuals and the episodic attention to topics and issues with histories of their own; the readiness and ability to make one's own contribution to these topics; or the opportunistic attitudes, affects, prejudices, and so on, that detract from a rational will-formation. (Habermas 1996: 325–326)

Jürgen Habermas wrote these words before 1992, when his work *Faktizität und Geltung* (*Between Facts and Norms*) was first published in the German original edition. In this book, Habermas lays some of the foundations of what will become deliberative democratic theory – one of the most cited fields of democratic theory. Moreover, many of his ideas will return in the deliberative systems approach that marks the latest turn of deliberative theory. As a result, *Faktizität und Geltung* influences even today's conceptions of collective democratic decisions, which are made through society-wide communication systems, in other words, through deliberative systems.

But since then, the contexts of and infrastructures for society-wide communication have changed. In 1992, the World Wide Web was still in its infancy, mainly giving access to data from governmental, scientific and commercial institutions. Few private households owned personal computers. In this time of

the Web 1.0, communication via the internet, and specifically such communication between individuals, was unheard of by the general public. Since then, societies have increasingly become characterised by the use of digital technologies. In other words, they have increasingly become subject to the conditions of the digital constellation (cf. Berg et al. 2020b: 18). This has various implications for social and political life. While some of Habermas's points cited above are obsolete, others remain valid, still others are truer than ever and many have developed in a direction that must have been unforeseeable in 1992.

For example, what seemed so trivial to Habermas – that communication processes “take up a certain space and time of their own” – might still be true for individual acts of communication. However, digital many-to-many communication puts the notions of time and space into new perspective. It occurs instantaneously over long distances, it can be archived and revisited over long stretches of time and it is often reordered independently of chronology. The question of what space is taken up by communications is no longer one of how much physical space is needed and what geographical coordinates it has, but rather one of what digital platform is used and what architectures structure the communication there.

In the quotation above, Habermas also says that communications media intervene “with a selectivity of their own in the social distribution of knowledge”. In the digital constellation, these communications media have diversified and are still doing so on a scale that would have been unforeseeable for Habermas. However, the resulting “asymmetries in the social distribution of knowledge” still stand, as is testified by the large corpora of academic literature on the polarisation, discrimination and fragmentation of the public sphere that result from the digital transformation.¹

Furthermore, Habermas refers to the attitudes of individuals who participate in political will formation. Where he sees these attitudes as dependent on the *individuals* themselves, digital communication is *structurally* more prone to “opportunistic attitudes, affects, prejudices”. This is partially a result of the specific logics and architectures of social media platforms. For instance, a post that is more affect-oriented will inspire more clicks, shares, likes and interactions; this generates more ad revenue, which increases promotion on platforms and thus increases the reach of that post among other social

1 To name just a few works in these regards: Bail (2021); Barberá (2020); Chambers (2023); Dahlgren (2021); Dubois/Blank (2018); Kubin/Sikorski (2021); Lambach (2020); Pariser (2011); Vo (2020).

media users. Thus, modes of communication “that detract from rational will formation” have become the default mode of digital interaction.

These three examples of how digital communication differs from what Habermas described in 1992 – the new perspective on time and space, the diversification of communication media and the influence on participants’ attitudes – already hint at the unique way in which communication processes are structured in the digital constellation. Throughout the book, I will elaborate on these unique characteristics and their implications for democracy. I will show that major parts of deliberative systems (as conceived in deliberative democratic theory) that operate under the conditions of the digital constellation are mediated through social media platforms whose logics and architectures structure the communication processes and thereby produce both positive and negative effects on the systems’ deliberative qualities. Thus, I will analyse the influence of social media platforms on democratic decision-making from a deliberative theory perspective, and more specifically from the perspective of the deliberative systems approach.

The discussion about the impact that digital technologies in general – and social media platforms more specifically – have on democratic processes is almost as old as the internet. Academic literature on digitisation often points to the effects of the digital transformation on democracies, and many of the conveyed arguments refer to the communicative aspects of democracies. One can see this by observing some of the most prominent scholars in this field. Andrew Chadwick (2013), for instance, concerns himself with how older and newer media logics blend in today’s political communication. Jose van Dijck and co-authors (2018) take a look at how news items are shaped by the platform ecosystems on the internet. Zizi Papacharissi (2015) zooms in on the communication processes of lay people and the public display of emotions that plays a primary role within these processes. Cass Sunstein (2017) describes how social media platforms’ logics lead to fragmentation, polarisation and even radicalisation. Jodi Dean (2002), on the other hand, argues in the opposite direction and states that due to its economic logics, the World Wide Web cannot resemble a true public sphere. Helen Margetts and colleagues (2017) analyse the “tiny acts of participation” that are enabled by new formats of social media communication, the publicity of which can motivate other people to contribute, too. While these and other scholars engage with various angles of digital communication and its implications for democracy, they often focus merely on the challenges put to democracy. Moreover, they frequently use vague concepts of democracy, which are not soundly founded on democratic theory, let alone deliberative theory or

the deliberative systems approach. On the other hand, scholars who are well versed in deliberative theory have thus far hesitated to approach the social and political effects of digital technologies. Throughout this book, I will demonstrate that the deliberative systems approach – as a concept based in deliberative theory – is especially well suited to analyse the effects of digital technologies on democratic processes.

In order to provide a solid theoretical foundation for the exploration of the effects of digital technologies on collective, communicative democratic decision-making, I will adopt the perspective of the deliberative systems approach (cf. Parkinson/Mansbridge 2012; Bächtiger/Parkinson 2019). Moreover, in doing so, I will expand the way that digital technologies are thought about: I will not only point out the challenges they present for democracy; I will also acknowledge their benefits. This more nuanced picture helps to pinpoint both the empirically provable challenges that social media platforms, in the interplay between technology and society, pose for democracy and the positive impacts that these platforms have on democracy. Thus, the challenges might be tackled at their roots by political actors while the more beneficial effects can be protected. In addressing my research question from this perspective, I will proceed as follows: I will commence by presenting the deliberative systems approach with its central concepts (chapter 2); I will follow up by introducing the digital constellation and its relevance for deliberative systems, especially the public sphere (chapter 3); I will zoom in on social media platforms, describing their central logics and their role within deliberative systems (chapter 4); I will focus on the platforms' architectures and their effects on deliberative systems (chapter 5); and I will describe how some social structures reify within these architectures and affect deliberative systems (chapter 6). In the following, I will elaborate on my line of argument and my methods of theory-building.

Deliberative democratic theory in general is an inherently normative theory "about making collective decisions and exercising power in ways that trace to the reasoning of the equals who are subject to the decisions: not only to their preferences, interests, and choices, but to their reasoning" (Cohen 2007: 220). Based on these more general ideas, the deliberative systems approach draws a model for coming to these decisions through communication processes that are distributed throughout society (cf. Mansbridge et al. 2012: 2–3). More specifically, communication processes in a system occur "in multiple, diverse yet partly overlapping spaces" (Elstub et al. 2016: 139–140) or sites, and there is a division of labour between these sites (cf. Mansbridge et al. 2012: 4). But while all sites contribute in their own way to the system's making of legiti-

mate democratic decisions, the sites must adhere to deliberative standards to different degrees, depending on their positions within the deliberative system (cf. Mansbridge et al. 2012: 2–3; Thompson 2008: 514). For instance, a parliamentary debate on a new law is, and must be, very different from a discussion that took place over a beer in a pub and generated an idea that fed into the discourse leading to that law. Among the variety of sites, the sites within the public sphere – including pub discussions – are considered to be especially vital for deliberative systems (cf. Mansbridge 1999: 228). In order for ideas to actually feed into a discussion that leads to a law, all the sites within a deliberative system must be interconnected. In other words, all relevant sites must be part of the system, so that ideas and reasons have at least the chance of being transmitted to other sites and thus of being introduced into the system-wide decision-making process (cf. Chambers 2012: 54). Therefore, the deliberative systems approach is a useful lens for examining society-wide communication processes that result in political decision-making.

Though the deliberative systems approach is thus based on normative ideas, it is less bound to normativity than other theoretical approaches in deliberative democratic theory. That is, while it proposes ideas regarding an ideal deliberative system, it also serves as a link for empirical observations: it “offers a set of normative criteria upon which the actually existing democracies can be analysed, criticised and improved” (Ercan et al. 2017: 206).² Thus, “practices within and pertaining to the system may be appraised, criticized, or designed on the basis of the role they play and what they contribute to the system and its overall deliberative quality” (Milstein 2021: 5–6). Several scholars who have empirically studied communication processes in this way have used normative theoretical conceptions from deliberative theory as a basis for their operationalisations.³ In this book, when conceptualising the deliberative standards by which I assess the effects of digital technologies on deliberative systems, I will primarily use the normative demands formulated by deliberative theory scholars. In chapter 2, I will extract central standards – inclusivity, equality, accountability, reciprocity, rationality, respect, openness, authenticity and comprehensibility – from the deliberative theory literature; and I will describe how these standards are applicable to deliberative sites,

2 Similarly: Elstub et al. (2016: 146), Mansbridge et al. (2012: 3).

3 Among others: Elstub (2014), Esau et al. (2021), Fung/Wright (2003), Fishkin (2009), Grönlund et al. (2014), Mendonça (2015), Smith (2009), Steenbergen et al. (2003).

the connections between these sites and deliberative systems in their entirety. Thus, I will first address the ground matter of deliberative systems, which involves two questions: What types of communication are conceptually included? What standards are conceptualised for the assessment of a communication's deliberative qualities? The latter part of the chapter is concerned with the structures within deliberative systems, the conceptualisation of deliberative sites (chapter 2.2), the connections between deliberative sites (chapter 2.3) and the manners in which these sites and connections combine to form deliberative systems (chapter 2.4).

In the subsequent chapters, I'll focus on deliberative systems that operate under the conditions of the digital constellation. In other words, I'll address those systems that operate in the context of societies that are shaped by the use of digital technologies in a fundamental and dynamic way (cf. Berg et al. 2020b: 18). The observation that "the digital increasingly structures the contemporary world" (Berry 2014: 209) is not a new one. This influence of digital technologies is particularly important with regard to political interaction, since "a growing proportion of political communication uses digital means" (Parkinson 2012a: 1), especially in the public sphere. Digital technologies thus provide an important infrastructure for the exchange of information, perspectives and ideas on political subjects. Moreover, they represent a reference point and a horizon for political communication. In other words, digital technologies can be referenced in political debates as a subject themselves or as a source for information, and the society characterised by the use of digital technologies, with all its possibilities, limits and conventions, is the context in which people communicate and make collective decisions. Political communication within society is thus shaped by digital technologies. Conversely, digital technologies are developed for use by society, they are developed within the economic, social and legal parameters of society and they operate and self-optimize based on the data they have about society. Thus, digital technologies represent an infrastructure, a resource and a horizon for societies and deliberative systems, even as they are simultaneously and dynamically developed within the parameters of these societies and systems. This interwovenness of digital technologies and societal discourse has been captured in the concept of the digital constellation (see chapter 3.1). It is especially relevant and especially visible in the public sphere (see chapter 3.2). As I have indicated above, the public sphere is considered a central part of deliberative systems by many scholars of the systems approach, while other parts, like the decision-making spaces, have become less emphasised as a result of the systemic turn of deliberative theory. At the same time,

the public sphere is a part that has been particularly affected by digital technologies, as well as by the economic and social dynamics that drive the development and deployment of these technologies, and it has experienced various structural changes. The communication processes within the public sphere adjust to the new possibilities and necessities of the digital transformation; and these adjustments, in turn, bring about new technological and social developments. A structural influence on such an important part of the deliberative system has effects throughout the whole system. This is because the public sphere is an important focal point of politics, and policies may be proposed and decided upon in consideration of what is perceived as the public opinion or the public's wishes. Moreover, the structuring effects of digital technologies set the background for how individuals communicate, how they perceive their possibilities and how the data generated via these technologies can be and are being used in political processes beyond the communication processes on these platforms.

Thus, digital technologies, digital spaces of interaction and the dynamics of the digital constellation are highly relevant to deliberative systems. However, deliberative theory scholars have been hesitant to address the specific characteristics of digital spaces and to acknowledge the fundamental differences between digital and non-digital spaces. Simultaneously, “[t]echnological changes are reshaping public life more quickly than theorists are amending their conceptions of deliberative democracy” (Chambers/Gastil 2023: 1). Yet, I will demonstrate throughout the book that deliberative theory and, in particular, the deliberative systems approach are highly useful conceptual frameworks for describing the effects of digital technologies on societies and democratic decision-making, as they “focus[...] on the heart of the digital revolution – communication, information, and social influence” (*ibid.*: 1–2). Moreover, the digital constellation represents a major factor in the wider discursive context of deliberative systems, and “anyone concerned with deliberative democracy must also be concerned with the wider discursive context – and indeed the institutions and practices that structure that wider context” (Owen/Smith 2015: 217). Consequently, viewing the influence of digital technologies through the lens of the deliberative systems approach is not only sound, fitting and feasible, but also a desideratum within deliberative democratic theory itself.

Conversely, digitisation research frequently mentions deliberative theory perspectives when addressing the effects of digital technologies, but the publications usually do not go into theoretical detail beyond citing deliberative demands, such as those stating that communication must be rational,

truthful, inclusive or respectful.⁴ Yet, deliberative theory and, in particular, the deliberative systems approach are much more complex, as they take into account numerous other factors that are highly relevant for the exploration and assessment of digital technologies' influences on democracy. For example, the systemic approach's attention to the contextuality of communication processes and the functional division of labour within a deliberative system can enable scholars to perform more nuanced assessments of these influences. Moreover, standards regarding deliberative qualities of communication processes are founded on intensive theoretical and empirical research, and an informed application of these standards can therefore provide a basis for assessing the democratic value of digital communication processes that is more thorough than what has been commonly found in digitisation literature thus far. Therefore, both deliberative democratic theory and digitisation research can benefit from the connection of the research areas.

Within the deliberative systems that operate under the conditions of the digital constellation, and especially within the public spheres that are part of these systems, large shares of the communication processes are mediated through social media platforms. Social media platforms are technological infrastructures that link third parties with each other and thus give access to, host, store, organise and transmit content provided by third parties on the internet (cf. Gillespie 2018a: 19; OECS 2010). In order to do so, they collect, store and process data, and they use these data in part for their content moderation (see chapter 4.1). Platforms like Facebook, YouTube, Twitter/X, Instagram or TikTok have billions of users worldwide and, as a result, have come to display oligopolistic tendencies. Countless acts of communication are performed daily on a relatively small number of platforms, and the platforms are economically incentivised to constantly increase both user numbers and the time users spend on the platform. Consequently, the platforms provide the space for large parts of the communication within deliberative systems. They are interwoven with different spheres of these systems, most importantly the informal communication processes between individuals in the public sphere (see chapter 4.2). While the platforms do not produce content themselves, through their design and architecture they still shape the conditions in which users operate (cf. Muldoon 2022: 26–27) and they thereby structure the communication processes in a unique way.

4 See, for instance, Forestal (2020), Maia (2018), Peacock et al. (2019), Rishel (2011), Stroud et al. (2015).

In the last two chapters, I will elaborate on these structuring processes and on their effects on deliberative qualities. In chapter 5, I will address the platform architectures themselves and analyse their effects on how platform communication is structured, how sites and connections are formed and how the architectures affect the deliberative systems beyond the platforms. In chapter 6, I will identify several social influences and contexts that structure communication processes generally, that produce specific patterns in the communication processes on the platforms and that affect the deliberative qualities of these processes. I will show that some of the effects produced by these architectures and patterns increase the deliberative qualities of the communication processes, and some decrease them.⁵ Some of my conclusions directly derive from the nature of the architectures.⁶ For most of the aspects I address in these chapters, however, I will take an explorative and secondary analytical approach. That is, I will collect and present the results of studies from digitisation research, deliberative theory approaches and adjoining academic fields that have been published on the respective aspects. In doing so, I will not compare digital to non-digital spaces but will instead focus on the specific characteristics of the communication processes found on social media platforms. In this book, instead of conducting case studies on specific spaces, I will remain on a higher level of abstraction. I proceed in this manner because my aim is to give an overview of the effects of platform communication on deliberative systems and to provide as comprehensive a picture as possible. This overview can then be used in future research that explores the subject matter empirically.

Social media platforms have various architectures that structure communication processes, and these architectures affect the deliberative qualities of these processes in numerous ways. The platforms' architectures allow for different forms of expression, some of which are not available or usually found in non-digital communication processes (see chapter 5.1). Expressions via

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- 5 Of course, neither architectures nor social structures are static. They constantly form and reform in the interplay of technological developments and the application and regulation of technologies within societies.
 - 6 For example, a limitation on the character number per post inherently produces shorter posts. Such posts can be produced through lower complexity, or higher density, but both these options result in lower comprehensibility and/or rationality. Alternatively, users can connect a string of posts, but this still inhibits comprehensibility, as the argument needs to be broken into pieces, and elaborate conventions might be needed to convey that posts belong together.

one-click reactions, for instance, are closely tied to the platforms' architectures. Such expressions are not only a result of the architectures that allow for such forms; they are also tied to architectures like content moderation systems, which structure platform communication. Platform architectures also structure the formation of sites on the platforms and the connections between these sites by providing different ways to connect contents and users with each other (see chapter 5.2). Since the platforms are strongly embedded in the wider deliberative systems, there are various ways in which the effects of their architectures' structuring spread beyond the communication processes on the platforms themselves (see chapter 5.2.2).

But the communication processes are not structured by the platforms' architectures alone. In addition, I will identify social influences and contexts that generally structure communication processes within society, that – in an interplay with the platform architectures – also structure communication processes on the platforms and that affect the deliberative qualities of these processes. More specifically, I will describe how social structures such as time (chapter 6.1), communicational conventions (chapter 6.2) and identification (chapter 6.3) reify in specific ways and produce specific patterns in platform communication processes.⁷ These digital-specific reifications in turn have retroactive effects in the social world beyond the digital spaces. They represent a set of constraints and possibilities for communication and therefore are a horizon not only for platform communication, but for the wider deliberative system. Moreover, the individuals that interact within these patterns transmit contents and perspectives that have been generated and processed within these patterns to sites beyond the platforms. For example, on social media platforms, there are patterns such as polarisation or platform. Individuals that use the platforms gain experience in navigating these patterns that they can also apply when interacting beyond these platforms. The transmitted contents and perspectives also affect the individuals' personal stances and feed back into communication processes beyond the digital spaces. The effects of these platform-specific patterns thus disseminate into the communication processes and the social world beyond the platforms.

This book analyses how digital technologies, especially social media platforms, affect deliberative systems. It thereby addresses one of the most drastic societal transformations of the last centuries (digitisation) by focussing on

7 Incidentally, these sections revisit the three comments I have presented regarding the introductory Habermas quotation.

one of the most important areas of democracy (collective reasoning and decision-making) from the vantage of one of the most comprehensive approaches to democratic theorising (the deliberative systems approach). It makes a connection between digitisation research and deliberative theory in a systematic and detailed manner that has been long overdue. By methodically combining these research fields, it provides a solid foundation for further research on the impact of social media platforms on society-wide democratic decision-making and communication processes more generally. It provides theoretical scholars from both deliberative theory and digitisation research with a more detailed understanding of the ways that the theories of their fields connect. For empirical researchers exploring this nexus, the book offers a structured review – one that can serve as a foundation for their research – of central platform architectures and their effects on communication processes and deliberative systems.

Moreover, insights on how digital architectures affect communication give important pointers about how digital sites can be aligned with democratic values such as equality and inclusivity. Both designers of digital sites – including those on social media platforms – and political actors who regulate such sites can benefit from these kinds of findings. Lastly, such insights provide digital literacy. Knowledge about how discourses develop in such spaces and how they are structured by the architectures surrounding them improves one's perspective on the information that emerges from these spaces. For example, it produces an awareness of the complexity and volatility of how and why posts, expressions and opinions are promoted in feeds and transmitted from site to site and of the roles platform architectures and social structures play in this process. Such insights enable every participant in deliberative systems that operate under the conditions of the digital constellations – in other words, almost any member of any marginally democratic society – to assess information from and about digital sites and to participate in societal discourse in an informed and circumspect manner.