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The Digital Constellation

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Weizenbaum Series #14

Working Paper

The Digital Constellation

Sebastian Berg, Niklas Rakowski, Thorsten Thiel

December 2020

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The Digital Constellation¹

Sebastian Berg, Niklas Rakowski, Thorsten Thiel

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Abstract

The emergence of the digital society has become one of the most pressing research topics in social science. So far, political science has been at the margins of the debate because it has been restricted by a rather narrow focus on networked communications. The paper attempts to change this by presenting a more encompassing way to address digitalisation from within political science. After briefly criticising the development of the research in political science the paper reconstructs at length some of the most popular conceptualisations in neighbouring disciplines. While we highlight the commonalities and strengths of those approaches in theorising digitalisation, we criticise their rather derivative understanding of democratic practices and the political as such. We go on to propose a modified understanding – which we term the “digital constellation” – that looks at the changing shape of democracy by developing a much more nuanced understanding of the interplay between societies and technologies. Finally, we illustrate the argument in an exemplary analysis of the changes occurring in political representation in the context of digitalisation.

1. Introduction

Attempts to understand digital technology as a significant transformative force and rhetorical references to the transformation of everyday life, politics, economy and almost all other areas of social life have been common practice for many years and have long since become a cliché. While, for many years, the transformative power of the internet was the primary focus of attention, more recent approaches have gone beyond information and communication technologies in an immediate sense and have instead taken a comprehensive look at the reconstruction of social practices – and thus the constitution of our society as a digital society. What is striking is that, despite its many and varied references, the pervasive debate on digitalisation and democracy has so far largely taken place outside the realm of political science.

In order to change this and to link political science – especially political theory – with the discussion about digitalisation and society, the article proceeds in two ways: we review the current research in two respects, first, briefly, the political science debate, and then, in more detail, the key contributions from neighbouring disciplines. For the latter, we reconstruct how these contributions understand digitalisation, what theories of the digital society they develop and how these theories relate to the political or democracy. Continuing on from these but then turning to political science, we propose in the third part of the text to make the concept of constellation the starting point for a political science perspective on the *digital constellation*. In contrast to grand theories of the digital society, we do not wish to grasp democracy and the political in a subsuming and reactive way in this conception, but rather to show more precisely how the interplay of technical and societal developments changes the possibilities of, prerequisites for and forms of democracy.

2. Digitalisation as a research subject in political science

Digitalisation as a *trending topic* has, of course, made its mark on political science and democratic theory debates (for an overview, see Kersting 2019). In the following, however, we will argue that the discussion of the topic to date has been limited in several respects and therefore ultimately falls short.

The point of departure for political science's engagement with digitalisation is the networking technology of the internet, whose disruptive social impact became apparent in politics and the public sphere in the second half of the 1990s and immediately became the subject of academic reflection. For political science – a discipline centrally concerned with democratic theory – this technical change was directly related to fierce discussions that were then underway about new modes of governance, globalisation and the hope for a democratisation of democracy (Bohman 2004). New models of governance, which were conceived as especially inclusive and actively participatory, shaped the discussion, even though, from the initial phase onwards, arguments critical of technology had a firm place in the discourse on democracy (Buchstein 2002; Schmalz-Bruns 2001). The discussion centred on whether the changes in the opportunities for social participation through digital technologies are revolutionary or whether they only benefit existing elites (Barber 1998), on whether the internet is a public sphere (Dean 2003) or on how the potential of networked communication can be realised (Dahlgren 2009). The majority of the literature looked directly at the promise of participation and on redeeming it (or not) (Hindman 2008).²

The most important iteration of this perspective began in the wake of the rise of social media from about 2005 onwards. This change, initially termed Web 2.0, has had the effect of bringing networking and communication between citizens to the fore and shifting attention away from the previous focus on information (transparency and accessibility). Studies on the new possibilities for self-organisation of collectives (Bennett and Segerberg 2014; Earl and Kimport 2011) have been especially active in applying the assumption of a more responsive institutional policy and more directly involved citizens in the positive case. The idea of a digital structural transformation of the public sphere became increasingly prominent and culminated in studies of the “square revolutions”, from the Arab Spring to the Occupy movement (Howard 2010; Tufekci 2017). Mechanisms endangering democracy, in particular those driving social fragmentation and political polarisation, were viewed as such from the very beginning (Sunstein 2008; Habermas 2006; Keane 2013) and then became central to research on filter bubbles, fake news and hate speech (Margetts 2019).

² The debates about democracy and the internet have, of course, often been summarised in articles (e.g. Margetts 2013) or anthologies (e.g. Kneuer 2013; Kneuer and Salzborn 2016; Jacob and Thiel 2017). An already older but still good article that deals more explicitly with democracy theory and political theory is Dahlberg 2011.

Beyond the focus on participation/representation and communication/the public, other areas of digital change relevant to democratic theory have received relatively little attention, with the exceptions proving the rule; these include the discourse on privacy (Seubert 2016; Thiel 2017), analyses of changes in state sovereignty (Pohle and Thiel 2020; Ritzi and Zierold 2019), research on digital civil disobedience (Celikates 2015; Züger et al. 2015) or works on surveillance by public or private actors (Stahl 2016). In addition, there have been some studies, usually focusing on a particular period of time, on the role of the secret services in the wake of the Snowden revelations (Steiger et al. 2017), as well as field-specific works on internet politics (Reiberg 2018; Busch et al. 2019), e-government (Schünemann and Kneuer 2019) or the development of democratic parties (Gibson et al. 2016).³ Yet, these works, like those engaging with changes in participation, have fixated in their understanding of digitalisation on the networking logic of the internet.

It should also be noted that, in recent years, empirical approaches to digitalisation have increasingly gained in acceptance in political science (De Blasio et al. 2020). The emphasis here is on participation and the public sphere, and networking is always understood as the key element that has a dynamic and reinforcing effect and can thus promote or undermine democracy – the only question concerns the parts and contexts in question. In contrast to the early literature, which often abstractly referred to the internet as an external and monolithic factor, this branch of research is more contextualised and breaks the analysis down to individual technologies or platforms. The empirical approach, which is also benefitting from new data sources and digital methods, claims for itself an increased professionalism that has taken the debate from the realm of op-eds and made it more scientific (Jungherr et al. 2020). However, the success of this approach also risks further narrowing political science's view of digitalisation as a societal phenomenon. This stands in stark contrast to the public discourse, which has shifted away from a focus on the internet as a communication technology and towards

³ There is a political science discussion of digitalisation underway in the subfield of international relations, and, although it will not be discussed here, it is certainly extensive. While questions of norm-setting or democratic stability do of course occasionally play a role here, this literature is irrelevant to the issue of interest in this text, since the works in question do not centre on internal societal reconfigurations and usually do not seek to understand digitalisation in terms of how it works but instead interpret it as a domain (cyberspace) or particular variable in the power game between states.

a more holistic discourse on digitalisation that discusses the regulation of the digital world in greater depth and not just its effects.

In summary, it can be said that the political science debate primarily understands digitalisation as a communication and information technology and thus reduces it to its networking effects. It furthermore focuses primarily on the interface between the deliberative public and representative democracy. Compared to the general debate on digitalisation, this is a relatively narrow focus that does not even adequately address emerging megatrends such as machine learning and artificial intelligence (see: Ulbricht et al. 2018) and underestimates the diverse effects of digitalisation in society.

3. Outlines of the digital society

If we look beyond the borders of the academic discipline of political science to the debates in the broader social sciences, it is immediately apparent that the transformation towards a digital society has been taken up much more broadly there. Digitalisation is addressed as a transformation of all of society, and the focus on communication technologies is increasingly being supplemented by reflection on other impulses of digital technology – such as automation. More so than in political science, debates in the broader social sciences discuss the connection between technological change and a general restructuring of societal rationalities, which is then also interpreted as directly relevant for politics. In the following, these debates will be reconstructed using examples in order to examine the extent to which the developments addressed within them lend themselves to a political science analysis and to determine which understandings of politics and democracy could be transferred to the political science discourse.

For the issues of interest here, it is not necessary to give a comprehensive overview of the very extensive and dynamic research in this field. Instead, we have deliberately chosen to select key texts from the German-language discussion on the digital society. The criteria we have applied were as follows: we looked for monographs that were theoretically oriented and raised questions for society as a whole, that were published in the last five years, that were aimed at a larger readership and that were widely discussed

in the public debate. This led to a selection of our five core texts by Dirk Baecker, Armin Nassehi, Andreas Reckwitz, Felix Stalder, and Thomas Vesting.⁴ The selected texts are key points of reference in the German-language discussion on the digital society, with each summarising the current state of research and claiming to provide insights on the development of politics and democracy.⁵

In the following, we first want to reconstruct how these texts conceptualise digitalisation/digitality and the move towards a digital society; we then look at their respective understanding of politics and the political.

3.1. Digitalisation, digitality and the digital society

The turn to the theme of the digital society has been most pronounced in sociology. In recent years, a large number of papers have attempted to present a comprehensive theory of the digital society. Two types of approach are central: an approach that can be located in general sociology and is characterised by a strong impact of systems theory, and an argument that more strongly centres on culture and practices and explains the development of society as a result of new possibilities for action. With regard to a systems theoretical approach, the works of Dirk Baecker *4.0 oder Die Lücke die der Rechner lässt* (2018) and Armin Nassehi *Muster: Eine Theorie der digitalen Gesellschaft* (2019) are particularly relevant. What they all have in common is an understanding of digitalisation that directly combines the form of the digital with the process of societal

⁴ Of course, it would have been possible to select a broader range of authors and to make the selection more interdisciplinary. Relevant works could have included texts from communication and media studies, for example, the monograph by Nick Couldry and Andreas Hepp "The Mediated Construction of Reality" (2016), or from philosophy, Luciano Floridi's book "The Fourth Revolution" (2014). The fact that we have not explicitly included these and other works here should not be understood as a categorical or qualitative judgment. Instead, we opted to look at a more homogenous selection of the literature that lends itself more to a focused discussion.

⁵ We wish to explicitly point out that our selection is limited to male authors only, which might say something about the state of the German debate. In Germany the whole genre of cultural diagnosis of the times tends to be a rather male domain. In the international debate there are more prominent female voices like Shoshanna Zuboff, whose "The Age of Surveillance Capitalism" (2018) has been a key work in the discussion in recent years, but also Jose van Dijck (2018) and Louise Amoore (2020) for example would have had to be included.

self-apprehension. This concept of digitalisation is thus already abstract and, at the definitional level, very far removed from technical aspects. Baecker, for example, defines digitalisation as the “development and testing of countable and calculable data in the medium of analogue contradictions for the purpose of communication of and with machines” (Baecker 2018, p. 59; our translation). Armin Nassehi likewise locates the core principle of the digital in the radical simplification of binary coding, which allows for universal and therefore infinitely complex application due to its unspecific character (Nassehi 2019, p. 147). It is the extension of digitisation’s logics into society, in which both authors then identify the central feature of digitalisation. Digitalisation duplicates the social in that it first codes the analogue reality in binary distinctions and then tests the resulting data on these distinctions themselves (Nassehi 2019, p. 107ff.).

Baecker has declared a fourth media epoch due to this recursive form, in which machines, statistical processes and other forms of automation are actively included in the social production of meaning. This epoch does not solely centre on the dissemination of information, which was the subject of the third epoch and of the printing press as its technical revolution. The revolutionary character of the fourth epoch consists in the virtually unlimited recombining of data.⁶ Armin Nassehi’s approach reverses this perspective in a certain sense, since he does not initially ask about the future of the digital society but rather on its purpose: to which social problem is digitalisation actually the solution (Nassehi 2019, p. 12)? According to Nassehi, digitalisation can only be thought of as a persistent and established technology because its functioning fulfils a societal purpose. Specifically, it is because the reference problem of digitalisation is society’s complexity and above all its regularity. According to Nassehi, this complexity did not originally emerge from digital technologies; it had already come into being beforehand in the process of a changing societal self-image and was therefore already expressed in the pre-digital emergence of sociology, for example.

But regardless of whether digital technologies are revolutionary drivers of societal complexity or reactive functions in the face of it, Nassehi and Baecker’s accounts converge again when they diagnose an excess of control as a consequence of the successful establishment of digital technology (Baecker 2018 14ff.; Nassehi 2019, p. 43). Be-

⁶ Armin Nassehi periodises this differently by choosing societal self-reflection as the point of reference rather than media constellations: For him, digitalisation then represents the third discovery of society. The first discovery was the birth of nation states; the second was the liberalisation and pluralisation since the middle of the 20th century (Nassehi 2019, p. 45ff.).

cause digitalisation, as a functionally necessary response to the complexity of the digital understanding of the world, is perpetuating itself more and more, and because increasingly clear patterns are emerging in the abundant data, of which society itself cannot be aware without the instruments of digital knowledge, society is being forced to deal with itself in a different and more vehement way. A pressure for change is arising, one that is affecting all parts of society and undermining the certainties of a goal-directed rationalist modernity. According to Baecker, this is generating a catastrophic state, a deep form of uncertainty, because the coming society will first have to find adequate forms and structures again. Functional differentiation as a hallmark of modernity is dissolving, and social integration is henceforth to be addressed by the flexible inclusions and exclusions of the network (Baecker 2018, p. 26ff.). Nassehi, on the other hand, insists that differentiation will continue to have an effect, yet he elaborates extensively on the once-prevalent illusion that the differentiated society could ultimately be controlled by an arrangement of political institutions in which the radical diversity of its revealed practical possibilities and variations would vanish (Nassehi 2019, p.185).

The second major line of discussion in sociology is hardly less ambitious in terms of seeking a comprehensive explanation but it bases its argument more strongly on action theory than on complexity theory. The books *Society of Singularities* by Andreas Reckwitz (2017, cf. Reckwitz 2020) and *The Digital Condition* by Felix Stalder (2018) are representative of this approach.

Andreas Reckwitz's argument builds a bridge to preceding approaches, since his central scholarly interest is in capturing and explaining an all-encompassing structural change in late modernity. In this period, according to Reckwitz's central thesis, the "social logic of the general loses its dominance [...] in favour of the *social logic of the particular*" (Reckwitz 2017, p. 11; our translation). Digitalisation is one of three driving forces in this process: it only becomes the force that revolutionises society as a whole when it coincides with the "sociocultural revolution of authenticity" and the "transformation of the economy into a post-industrial economy of singularities" (2017, p.103; our translation) The specific significance of digitalisation in Reckwitz's account is that it allows the generalising techniques of industrial modernity to be absorbed by the "cultural machine of the internet", in which they lose their egalitarian and standardising social power. Digitalisation acts as an infrastructural prerequisite for enabling cultural singularisation practices that are aimed less at coping with the complexity of society as a whole than at creating individual meaning (Reckwitz 2017, p. 103, 166ff., cf. 224ff.). The transformation of societal structures is thus not based on the inherent structural logic of digital technology, as Baecker asserts, but rather on the action-logi-

cal convergence of social practices – ‘*doing* generality’, ‘*doing* singularity’ – with the affordances of digital technology (as well as the economic and cultural context) (Reckwitz 2017, p. 225).

The functioning of this becomes even clearer in Stalder’s approach – it directly explicates an action-theoretical understanding of digital change and does not only do so as part of a larger argument concerning structural change. According to Stalder, digitality must be understood as a new “cultural constellation” (Stalder 2018, p. 4f.). It refers to “the set of relations that, on the infrastructural basis of digital networks, is realized today in the production, use, and transformation of material and immaterial goods, and in the constitution and coordination of personal and collective activity” (Stalder 2018, p. 8). As with Baecker and Nassehi, Stalder therefore views digitalisation as going beyond the current moment in technological and media terms but now evaluates it as a “relational paradigm” of intersubjective and interobjective communication in which “historically new possibilities for constituting and connecting various human and non-human actors” emerge (Stalder 2018, p. 9). It follows, on the one hand, that a “presence of the digital beyond digital media” exists (Stalder 2018, p. 10), and, on the other hand, that technology not only configures the conditions of cultural practices, but is itself created and stabilised by contradictory and contingent procedures or by the experience of social use (Stalder 2018, p. 7f.). For Stalder, three specific cultural forms particularly characterise the culture of digitality: referentiality, communality and algorithmicity (Stalder 2018, p. 58ff.).

Before we move on to look at the notion of politics that follows from these sociological approaches, let us take a look at law as another neighbouring discipline that is particularly important for political science. Here, too, a new awareness of the problems and challenges the digital society poses for the legal-political arrangements of the present has recently emerged. The approach in German legal studies differs from that of sociology and political science for the simple reason that in jurisprudence, interpretative prognostic approaches are not a part of the central discourse of the discipline. Here, the most common approach entails asking questions regarding the possibility of regulating technical innovations (Eifert and Hoffmann-Riem 2009) or the design of specific legal institutions under the sign of digitisation (Fries 2016). Only recently has digitalisation been understood as a broad cipher for comprehensive social and cultural change, to which the constitution and constitutional law must respond (Pernice 2020; Peuker 2020; Kettemann 2020), bridging the gap to a more elaborate international discourse (Cohen 2012; Hildebrandt 2015). One of the early contributions that reflect on society as a whole and on democratic theory is the final volume of Thomas Vesting’s

four-volume *Medien des Rechts* book series (2015) (also see: Kersten 2017; Ingold 2017).

According to Vesting, the effect of media – such as language, writing, printing, or computer networks – is not limited to their function as mediators, but also extends to their form-giving effect, in which “meaningful structures and orders are inscribed” (Vesting 2015, p. 50; our translation). Media do not simply reproduce law but create a cultural framework from which law can generate its normativity.

Unlike the sociological authors, Vesting is less abstract regarding the effects and form of digitality. For him, the significance of the computer as a material artefact capable of interweaving media is central (Vesting 2015, p. 53). The merging of computers into networks then creates the dynamic constellation whose emergence brings about a cultural change “from a hierarchical-centralist to a heterarchical-acentric culture” (Vesting 2015, p. 56; our translation; see also: Vesting 2019) and within which new, paradigmatic forms of communication emerge: the fleeting, emotionally charged nature of digital communication, the micro-diversity of social media, or the difficult-to-delineate border between political and media events. For Vesting, too, a “culture of networks” thus leads to a revised understanding of social epistemology and subjectivity. Both can only be determined relationally in the network society (Vesting 2015, p. 61, 72ff.; our translation). This also has consequences for the law and for legal norms; we are witnessing the emergence of a “law of network culture”. This does not replace the previous legal structures but adds further layers and levels to them. A defining feature of the law of network culture is that it must find a response to the decreasing binding effect of group identities and the tendency of subjects to individualise (Vesting 2015, p. 153ff.).

3.2. Politics: epiphenomenon and media product

The institutions and processes of politics are only of secondary importance in each of the five approaches briefly presented here. This is first of all due to the authors’ disciplinary interests, for example, in producing a sociological description of politics as a specific sub-area of society. Beyond that, however, it is the conceptualisation of digitalisation itself that, in our view, leads to an overly far-reaching denial of the importance of collective forms of political action – and it is this aspect of the analyses that we now want to tease out and criticise separately.

In the case of Thomas Vesting, this denial occurs quite directly through the heavy use of the term network. In Vesting’s view, a network is not only a communicative

form but should rather be understood as a structural feature of any instance of political institutionalisation. He hence calls for the representative structures of democracy to be geared towards the new network culture, for example, by establishing digital forms of participation or by turning away from the party-centric organisation of representative politics (Vesting 2015, p. 158). By invoking a “strengthening of institutions of self-organisation in network-like contexts of action” (Vesting 2015, p. 162; our translation) Vesting adopts a technical metaphor of decentralisation. This media-theoretical interpretation overstates the understanding of politics as a reflection of a change of media and fails to recognise the contingent and discordant character of technical adaptation processes.

For sociological diagnoses of politics in the context of the digital society, the critique is shaped not by an imperative to reproduce the digital structure but rather by a very general doubt, albeit expressed differently in all approaches, about the capacity of political institutions to perform.

For the two approaches in the systems-theoretical tradition – Nassehi and Baecker – this first and foremost merely preserves an already long-held idea in systems theory: namely that political control is relative.⁷ Nassehi illustrates this in two ways: first, he shows how the radical increase in options in the sub-systems and the increase in the complexity of society makes politics more susceptible to disruption overall (Nassehi 2019, p. 183); and, second, he interprets field-specific developments in digitalisation, such as the platform economy or big data, to the effect that they challenge the democratic mode of collective political control of society as a whole. In the context of the digital society, taking functional differentiation seriously means that it can no longer be rendered invisible by a generalising institutional arrangement (Nassehi 2019, p. 185). A society characterised by digitalisation is, in this view, visibly de-centred by the unfolding complexity and simultaneous awareness of the exemplary quality of collective action. It can therefore only be influenced by distributed social processes and can no longer be controlled in any way in a collective-centralised manner. An appropriate political response can therefore only be thought of as a strongly responsive, cautious policy that acts directly with the digital infrastructure as an assemblage.

⁷ This insight in turn finds its point of departure in the cybernetic interpretative approaches to society, which described the older sovereignty-centred thinking of the political as inadequate for modernity and formed the ideological-political precursors of network thinking (August 2021; cf. Deutsch 1969).

Dirk Baecker similarly assumes that complexity presents too great a challenge for politics and that it cannot function other than by engaging in a constant “reformation of its possibilities in the medium of disintegration and reconstruction of every kind of reality” (Baecker 2018, p. 97; our translation). Yet, unlike Nassehi, he does attempt to predict how politics will change in concrete terms: the starting point is his determination that politics is always also what “the public expects from politics” (Baecker 2018, p. 97; our translation). This shift towards a communicative concept of politics consequently becomes an especially charged one when Baecker characterises the decision between war and peace or inclusion and exclusion as the central object of political communication (Baecker 2018, p. 101). Politics, in Baecker’s understanding, is the struggle for power; it is the possibility to enact threats in order to force others to obey. The conditions for exercising power intensify in the digital society, since the context of politics becomes more emotionally charged and the possibilities for manipulation increase (Baecker 2018, p. 103). This understanding of politics, which is surprising in the context of the book, because it is an older one, is then developed to resolution at the end of the relevant chapter in a brief reflection on the possible institutional forms of future politics. These forms are determined by democracy, technocracy and autocracy, with each representing a different way of dealing with the uncertainty of the future (whereby the concept of democracy is here again formulated in a very minimalist way as an accepted electoral procedure that is majoritarian and recursive). Normatively and with regard to the probability of their implementation, this work treats the three forms equally (Baecker 2018, p. 105).

The cultural sociological works clearly distinguish themselves from these system-theoretical understandings but without granting institutional politics a greater weight of its own. In Stalder’s work, we can observe a de-institutionalisation of the concept of politics, in that he allows forms of action that act collectively to exert influence to be subsumed under cultural practices. He defines democracy in institutional terms as “far-reaching decisions about issues concerning society in a formalized and binding manner that is legitimized by citizen participation” (Stalder 2018, p. 129). However, at best, this formal political dimension only plays a role in his argument by its absence. It is an indicator of political decay: the shape of digital media is not conditioned either by a technical imperative or by the consequences of political action, but rather by the consequence of a “political, economic, and technical constellation that realized the possibilities of the present (productive forces) in particular institutional forms (relations of production) and was driven to do so in the interest of maximizing profit and control” (Stalder 2018, p. 130.). Two things follow from this: Stalder depoliticises the

culture of digitality, since he sees economic-cultural processes in particular as relevant to the shaping of social conditions, and he undermines democratic normativity when he proclaims democracy to be the norm but in fact keeps it with a libertarian Thrasymachos: the more efficient person prevails in the unformalised *rough consensus* of the internet meritocracy (Stalder 2018, p. 250).⁸

Reckwitz's concept of politics is also culturalist in character: he sees politics primarily as an object of cultural practices – and thus also of digitalisation. The dissolution of the politics of the general into the “politics of the particular” is described as the result of a “culturalisation of politics” (Reckwitz 2017, p. 371; our translation). This results in forms of identity politics and “apertistic-differential liberalism” that remain derivative and often centre on an “of” – the politics of cities, the politics of the competitive state, the politics of cultural diversity, etc. In contrast, social formation gains its dynamism through the economy of singularities, the “cultural machine of digital technologies” and the singularist lifestyle (Reckwitz 2017, p. 442; ; our translation). Because Reckwitz, similar to Baecker and Nassehi, also denies politics the ability to shape the future and ascribes to it “at most indirect” influence (ibid.), he does not specify the procedures and institutions that should be used to meet his retrotopic demand for a return to practices and forms of the general, a *doing universality*, as a reaction to the “crisis of the commons” (Reckwitz 2017, p. 440; our translation). The yardstick and source of legitimacy by which his proposal for “regulative liberalism” and its implementation would have to be assessed also remain unclear (Reckwitz 2017, p. 441; our translation).

4. Political theory of the digital constellation

The one-sided focus of political science research into digitalisation on the internet and networking and the much more comprehensive but derivative understanding of the

⁸ An even more economy-centred analysis is given in the work of Shoshana Zuboff (2018) on surveillance capitalism. Here the rise of a new instrumentarian power and the loss of democratic sovereignty appear as a mere consequence of an all-encompassing economic order aiming at the manipulation of the individual subject through the usage of their digital data.

political in neighbouring disciplines raise the question of how a political theory of digitalisation could be differently conceived. This theory would have to be capable of comprehensively and systematically capturing the dynamics of social change, while at the same time taking into account the specifics of democratic politics and the possibilities for shaping it: for by “not having to be what is” (Blumenberg 1987, p. 57; our translation; cf. Greven 2010), modern political thinking lays claim to at least a relative shaping of social conditions. In democratic societies, this is complemented by the fact that the process of social shaping is not only structured by technical possibilities, but also by specific normative requirements, such as equal consideration and liberal self-determination. Yet the assumption that collective forms of action are relatively capable of shaping social conditions is a prerequisite for political reflection, and only under this condition can a political science approach to digitalisation – for example, with regard to key democratic categories such as rule, participation, representation or the public sphere – be successfully formulated.

4.3. The digital constellation

The aim of the following proposal is therefore to provide a description of politics in the *digital constellation*. In other words, it aims to reflect on the conditions under which politics takes place in a society that is characterised by the use of digital technologies. This amounts to less than a comprehensive theory of the digital society but offers more than the internet research that has characterised political science to date. It hence does not interpret digitalisation as a domain phenomenon but as a comprehensive, multifaceted process in which society and technology interact dynamically and continuously in concrete ways. Any attempts to separate the two areas or to point to a one-sided cause-effect relationship in the sense of “the consequences of the ... for ...” will prove in vain. Instead, there are two things we can learn from the paradigmatic interpretations in neighbouring disciplines as reconstructed here: on one hand, there is a need to reflect fundamentally on the basic assumptions of social theory, since their transformation exerts influence on the possibilities and practice of political action in both societal and institutional form. On the other hand, there is a need to understand how digital technologies, as part of the collective socialisation process, condition and are themselves shaped and conditioned, i.e. how spaces of possibility open up in line with technical affordances and how social and political action is realised.

What needs to be examined from the perspective of the digital constellation is how this politics is enacted. In other words, the questions are: what technical factors have

a formative significance and in what way; what spaces of possibility or structural logics are formed and consolidated; how does politics in turn affect technologies, their development and social realisation; and, finally, what social or political practices prevail and become self-evident in light of this socio-technical environment? The intentional reference to Jürgen Habermas (2001) that is evident in the use of the term constellation and to his late-1990s discussion of the post-national constellation aims to underscore the idea that the conditions underpinning political action in democratic societies have changed, which means that democratic politics must be reflected upon differently (Cf.: Pernice 2018; Hofmann 2019).

Here, the concept is based on the philosophical process of representation and conceptual knowledge gain that is expressed in the work of Theodor W. Adorno as a constellation or configuration. Adorno argues “that one cannot build an argumentative structure that follows the usual progressive succession of steps, but rather that one must assemble the whole out of a series of partial complexes [...]; their constellation, not their succession, must yield the idea.” (Adorno 1997, p. 364). This procedure is thus characterised by a discursive circling, in which the constellation of a concept in relation to other concepts is intended to contribute to the understanding of the object. Habermas transfers this philosophical logic into the analysis of a changing historical constellation, which originally led to the institutionalisation of democracy (or the bourgeois public sphere) and which now, in its process of change, threatens to undermine the conditions as well as the normativity of its formation (Habermas 2001, p. 60; cf. Habermas 1989, p. 79). It is in this sense that the predominant political scientific conceptualisation must also be understood, as has been discussed with regard to globalisation, for example, in regard to political protest in the transnational constellation (Volk 2018). What is common to these, as well as to our own approach, is the assumption that a transformed social constellation would put previously valid factors into a new relationship with each other, one which would be accompanied by a necessity to adapt analytical and normative patterns of thought.

In order to analytically differentiate the object of investigation – in our case, the digital constellation – we propose to first distinguish between three levels at which digitalisation is becoming relevant: the level of the properties of digital technologies, the level of affordances realised in practice and the level of the social configuration or political transformation of form. As in the sociological texts, the “properties” of digital technologies are to be reconstructed by means of datafication – the transformation of analogue to digital information – with the archivability, networkability and processability (algorithmisation) of digital data being particularly noteworthy (see similarly

Stalder 2018; Lenk 2016). These abstract properties form a constant that can take on different forms in connection with action practices and contexts. A second level of the description is the series of affordances realised in practice, that is, a generalised statement about collectively established forms of action that result from the perceived spaces of possibility for digital technologies. Behind the concept of affordances lies the consideration that technology does not determine social structures but provides structures that make practices available, i.e. it opens up possibilities for action (Hutchby 2001, p. 444; Latour 2005, p. 72). Following Evans et al., we understand affordances conceptually as a multifaceted relationship structure between a technical artefact and its user, which, in a concrete situation, enables or limits potential outcomes (Evans et al. 2017, p. 36). This perspective focuses the analysis on the connection between technology and social practices, but is also compatible with basic considerations of political thought, such as the freedom and contingency of political action. While the affordances of a technology always refer to concrete situations and depend on the subjectively perceived context that exists in that situation, the description of *affordances realised in practice* is, however, in political science terms, extended to a generalisation of the affordances that were realised in a similar way under similar conditions and from which path dependencies that can be reflected on for society as a whole result. One example of a practically realised affordance of digital technology is *many-to-many communication*. Affordances, understood in this way as a theoretical element, can thus enable non-deterministic statements about the connection between digital technologies and social or political formations. Finally, at the third level, statements about the social configuration as a result of socio-technical change processes can be made. Technical characteristics and political dynamics are then firmly linked in the process of adaptation and produce relatively stable socio-structural phenomena such as the platform economy in its present form.

In order to make clear the value of the approach via the digital constellation as well as the outlined distinction between the three levels, we will now finally turn once again, for illustrative purposes, to a particularly highlighted area of democratic politics – namely political representation – and show how our perspective can be applied in an analytically productive and politically relevant way (see also: Thiel 2020).

4.4. The dynamics of political representation between connective organisation and data-based analysis

The transformation or the crisis of democratic representation is not a new phenomenon. Rather, the “squaring of the circle” (Landshut 1968, p. 490; our translation) represents a constant in the history of democracy that is, time and again, stabilised in the alignment of normative ideals such as freedom and equality, institutional forms and social practices. Nevertheless, it is not difficult to identify developments related to digitalisation that point to a structural transformation of the understanding, practice and institution of political representation, the “democratic interface” (Bennett et al. 2018; Karlsson 2013).

This is evident in the rise of connective forms of party organisation or in the emergence of new digital parties and movements, from the Pirate Party through the *Movimento 5 Stelle* to the *Tea Party* or the *Brand New Congress*. Digital technologies enable low-threshold networking as well as affectively charged and very immediate communication within and beyond the organisation. In the context created by such technologies, participation expectations and preferences change. Traditional forms of collective organisation by means of hierarchically organised structures thus particularly come to lag behind parties and movements that are much more permeable, internally heterogeneous and reminiscent of the technical formation of platform-based communication (Gerbaudo 2019) – although doubts can and should be raised regarding whether equalisation and democratisation will necessarily follow from these horizontal participatory elements (Urbinati 2015; Kelty 2015).

However, political science analysis must not end here; it must rather uncover further effects of the digital constellation on political representation and include them in the analysis. For example, a digitalised communication environment not only allows for more direct exchange; the relation of interaction is also inverted from the other side. This is the trend known as the *analytics turn*, which uses the automated analysis of large amounts of data to collect information on the behaviour and preferences of citizens, generates profiles and then aligns this with the political actions of representatives (Chadwick und Stromer-Galley 2016, p. 284). According to the logic, which is somewhat older and dates back to the quantification of public opinion and opinion research (Herbst 1993; Keller 2007), the conditions of the digital constellation give rise to the subsequently realised possibility of reconstructing public opinion comprehensively on an exponentially enlarged scale and via algorithmic analytical means while at the same time further individualising politics (McGregor 2019; Tufekci 2014). In the face of

complex and uncertain relationships of representation, “mathematically trained people react accordingly with the ‘rational reflex’ to demand more data and even more complex analytical models in order not to overlook any possibly relevant aspect” (Neth und Gaissmaier 2017, p. 214; our translation). Here, the interplay between the properties of digital technology – its archivability, processability – and the resulting possibilities – automated pattern recognition, profiling, personalisation – and, once again, the effect of politics on technology development becomes clear. The resulting “passive democratic feedback” (Karpf 2012, p. 23, 2016) establishes itself as an element of political decision-making that democratic theory has not yet caught up with while at the same time social networks or apps enable campaigns and representatives to have “direct” contact with citizens. Forms of “computational management” (Kreiss 2012, p. 24) and “controlled interactivity” (Stromer-Galley 2014, p. 104ff.) of the representative relationship form a counterpoint to the participatory-emancipatory reading of the digital transformation of political representation – without simply representing its refutation.

At this point, we observe how the adaptation of the digital constellation brought about by the technical possibilities of digital media takes place but also how the background of the crisis of representation serves as a source of legitimation and as a catalyst for the experiment with new forms of politics (König 2018; Chadwick and Stromer-Galley 2016; for an early work, see Margetts 2001; Gellner and Strohmeier 2002).⁹ The fact that adaptation processes are not uniform and are in turn shaped by factors such as political culture, the actions of political elites and the legal and structural framework becomes particularly evident when topics such as *micro-targeting* are again compared in different political reference spaces such as the United States and Germany (Bennett 2016; Jungherr 2016; cf. Zuiderveen Borgesius et al. 2018; Krukowski and Haller 2017).

Addressing distinctions and interactions in a differentiated manner does not mean relinquishing the possibility of making comprehensive statements about the digital constellation. These can still be reconstructed, but must now explicitly reflect the sta-

⁹ In representation theoretical terms, too, the need for an information technology connection between voters or citizens and representatives was already discussed in the 1980s, at that time still against the backdrop of a crisis of control and complexity in modernisation theory. The suggestions of “cybernetic representation” can therefore be understood as conceptual precursors regarding the connection of representative institutions and information technology structures (Herzog 1989; Mirbach 1992).

bilising and dynamising moments. This includes, for example, the critical insight that digital interactivity has developed affordances that reinforce a populist mode of politics and are stabilised at the level of the societal configuration – for example, by the advertising-influenced platform economy as an infrastructure of political interaction. Under the conditions of the digital constellation – its incentives for citizens to be permanently and differentially read, questioned, and in turn convinced – the democratic focusing on the people and the will of the people leads in both the above-sketched connective reconstruction and in the analytical reconstruction to a specific development of representation. This is dominated by an instrumental but not passivating perspective on individual voters and a political style that rewards the struggle for authenticity and accountability with the most congruent possible adoption of a popular will that manifests itself directly in digital form – without, of course, necessarily resulting in the fulfilment of democratic promises of responsiveness (Baldwin-Philippi 2018). In addition, there is the fact that such an understanding of responsive representation is characterised by plebiscitary and identity-theoretical concepts and procedures, which not only undermines the action and difference-theoretical foundations of parliamentary representation (Thaa 2016) but also puts the functional logic – and thus the legitimacy – of representative institutions up for negotiation (Urbinati 2019). In such an explanation, it is hence not the complexity of politics induced by digitalisation that challenges democracy. Instead, the development of democracy must at least also be interpreted based on the unfolding of political practice. Political science in general, and political theory in particular, would therefore be well advised to reflect on the technical dimension in its interplay with political formations if they want to make well-founded statements and not describe the interrelationships as a *black box*.

5. Concluding remarks

This illustration of an example-led analysis of democratic development under the sign of the digital constellation has shown that political science can contribute more to discourse than it currently does. It also shows, however, that the disciplinary issues change when technical conditions are explicitly included in the debate. It is crucial to develop an understanding of digitalisation and the digital society that renders the impact of technology and media in society a subject relevant to political contexts. Our proposal for this is twofold: on the one hand, we suggest conceiving of digitalisation as a digital constellation and thus focusing on the possibilities and the process charac-

ter; on the other hand, we argue for a conceptualisation of the effects of technology – in this case, digitalisation – in a multilayered and non-deterministic way. Political science and political theory or democratic theory do not have to go into the details of individual technologies but can explore generalised relationships. However, it is important to gain a complex understanding of the interactions between technology and society without losing sight of the specifics of the political organisation of society and especially its democratic institutions. In this context, political scientists have much to learn from the dialogue with neighbouring disciplines – and can also enrich them.

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