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A More-than-digital Anthropology

Ethnographies of Participation and Administration

Martina Klausner

Eine „mehr-als-digitale Anthropologie“: Ethnografien der Partizipation und öffentlichen Verwaltung

Zusammenfassung: In diesem Artikel entwickle ich eine Forschungsagenda für eine „mehr-als-digitale Anthropologie“ und verbinde hierzu Ansätze aus der Tradition der Digitalen Anthropologie mit den theoretischen Grundlagen einer Relationalen Anthropologie. Dies ermöglicht, so mein Argument, anthropologische Forschungen zum „Digitalen“ gegenüber essentialisierenden Vorannahmen, was das Digitale und das Analoge als differente Sphären ausmacht, abzusichern. „Mehr-als“ signalisiert zugleich eine Verwandtschaft meiner spezifischen Theoretisierung des „Digitalen“ mit ähnlichen aktuellen Ansätzen – wie beispielsweise einer mehr-als-menschlichen Anthropologie –, die sich einer binären Beschreibung und Aufteilung der Welt in Menschliches und Nicht-Menschliches, Natur und Sozialität, Technik und Kultur, in virtuelle und physische Räume, grundlegend entziehen. In den Fokus kommen vielmehr die fortlaufenden Übergänge, Übersetzungen, aber auch Lücken und Störungen, auf die wir dann stoßen, wenn wir Praxis als zentrale analytische Einheit zum Ausgangspunkt unserer Forschung machen. Im zweiten Teil des Artikels werde ich diesen Ansatz anhand ethnografischer Untersuchungen von Bürgerbeteiligung und öffentlicher Verwaltung in der Stadt Frankfurt am Main verdeutlichen. Wie ich zeige, verlagert der Ansatz einer mehr-als-digitalen Anthropologie die Aufmerksamkeit auf die weitergefassten Kontexte sogenannter smarter städtischer Verwaltung und Online-Bürgerbeteiligung und insbesondere auf die Arbeit, die mit nur partiell verbundenen Infrastrukturen und den vielfältigen Netzwerken einer mehr-als-digitalen Politik des Bürgerengagements einhergehen. Ein Ausblick in zukünftige Forschungslinien einer mehr-als-digitalen Anthropologie schließt den Artikel ab.

Schlüsselbegriffe: Digitale Anthropologie, Relationale Anthropologie, Digitalisierung, Bürgerbeteiligung, Öffentliche Verwaltung

In the fully revised, second edition of the volume *Digital Anthropology*, editors Haidy Geismar and Hannah Knox ask, “[a]s digital anthropology is coming of age, does it just become anthropology again?” (2021: 14). A decade after Heather Horst and Daniel Miller first published the influential collection of approaches to and debates on *Digital Anthropology* (2012), not only has digital anthropology flourished, but digital technologies have become ubiquitous in the worlds anthropologists study, beyond online worlds

and hacker communities. Against arguments that we now live in a “post-digital era” (Parry 2013), Geismar and Knox assert that a

“digital anthropology remains crucial if we are to stay attentive to the actual everyday implications of technologies in people’s lives. [...] As long as ‘the digital’ continues to be manifested in hyperbolic dreams and dystopian fears that drive investment, frame policy and shape technology design, then an anthropological approach that is capable of uncovering the everyday humanness of digital life remains essential.”
(Geismar/Knox 2021: 14; emphasis in the original)

Calling for a ‘more-than-digital anthropology’ – as I outlined in my inaugural lecture in April 2021, which forms the basis of this article¹ – takes the many dreams and fears surrounding the digital seriously but attempts to situate ethnographic research into ‘the digital’ in the various contexts – both digital and analogue – of its manifestation and contestation. At the same time, it situates anthropological theorizing of ‘the digital’ within broader disciplinary attempts to overcome fundamental binary accounts of the world, of the human and the nonhuman, the natural and the social, the technical and the cultural, the virtual and the physical. As I will outline in the first part of this article, the proposal for a more-than-digital anthropology is rooted in my reading of a relational anthropology and the consequences I see for conceptualizing and researching digitality. In the second part of the article, I will demonstrate this approach through an ethnographic exploration of citizen participation and public administration in the city of Frankfurt as exemplary fields for investigating current digitization processes.

Theoretical Roots of a More-than-digital Anthropology

Discussions around the specificity of digitality as the focus of anthropological research have taken off in several directions and also under different headings: alongside digital anthropology (Boellstorff 2013; Geismar/Knox 2021; Horst/Miller 2012), such an endeavor has been called the anthropology of cyberculture (Escobar 1994), virtual (Hine 2000) or digital ethnography (Pink et al. 2015), and, more recently, data ethnographies² and “ethnography for a data-saturated world” (Knox/Nafus 2018). These terms and research designations all come with slightly different theoretical framings and research interests. Common to all these approaches, however, are some shared concerns and challenges posed by a research focus on digitality as an emergent cultural phenomenon. Some of the prevailing questions are: How can one theoretically frame and analytically integrate what is commonly referred to as the virtual and the physical, the digital and the analogue? How can one attend to the productive forces that create binaries and differentiations and, at the same time, new forms of connectivity? And, on a more

1 The inaugural lecture for the professorship on Digital Anthropology and Science and Technology Studies at the Institute of Cultural Anthropology and European Ethnology at Goethe-University Frankfurt was held on April 28, 2021, in Frankfurt.

2 <https://dataethnographiesdotcom.wordpress.com/about/>.

general level, how can one provide a differentiated account of both continuities and transformations related to digitized knowledge production and emergent socialities? Unsurprisingly, the answers to these questions are manifold. In the following, I will present a selective reading of responses that are illustrative of my research approach to digitality to outline the agenda of what I call a “more-than-digital anthropology.” A first strand of these readings follows the *conceptualizations of the digital as a matter of relations*, while a second traces the use of computers in anthropology to highlight the specific *methodological challenges and potential* for ethnographic research on digitality.

Digital Anthropology meets Relational Anthropology

Heather Horst and Daniel Miller (2012) start by defining the digital in their edited volume *Digital Anthropology*,

“as everything that has been developed by, or can be reduced to, the binary – that is bits consisting of 0s and 1s. The development of binary code radically simplified information and communication, creating new possibilities of convergence between what were previously disparate technologies or content.” (Horst/Miller 2012: 5)

Building on this definition of the digital as, first and foremost, referring to the production of binaries and new forms of convergence, Horst and Miller then develop a dialectical framework for a digital anthropology to investigate further the impact of an ongoing proliferation of particularity and differences, which they state is a constitutive part of what makes us human. Using similar wording, but offering a slightly different take, Gertraud Koch (2017) in her edited volume *Digitisation* states that, first of all, “digitisation is a technical term that signifies the transformation from analogue into discrete data, i.e., values in a stepped value system or value stock clearly to be distinguished from each other” (Koch 2017: 7). While Koch also makes a strong argument for taking the specific technicalities of digitality seriously in empirical cultural research, she, nevertheless, proposes to approach digitization principally as a relational matter, always encompassing technical, biological, social and cultural dimensions. This enables us to tackle digitization from different angles, as manifested in what Koch calls “coded culture” (Koch 2017: 11), in the everyday practices of “doing digital culture” (Koch 2017: 93) and in digitally mediated processes of world-making (Koch 2017: 177).

With her emphasis on relations, Koch positions herself in the tradition of a ‘relational anthropology’, prominently represented in the German context by the late Stefan Beck. It was, in fact, in his inaugural lecture in 2008 that Beck introduced his outline for a relational anthropology. This approach, he argued, aims to oppose the dehybridization of nature and culture in current research programs and contemporary theorizing. Beck’s critique was directed firstly at a narrow concept of the natural, which he saw as formative in the life sciences, for example; and secondly, it was directed inwards, at an anthropological concept of culture that is restricted to the sphere of the symbolic-ideal. By contrast, he proposed, a relational anthropology aims to analyze the myriad

relations between the material and the ideal, between physical and mental phenomena. Beck outlined what such a relational anthropological approach could mean for dealing with digitality just a few months before his untimely death, in a talk he gave at the conference “Digital Practices” in Frankfurt in 2015: “From Practice Theory 1.0 to 3.0 – or: How Analogue and Digital Practices Should be Related”³. As Beck explicated, the digital as part of information and communication processes gains meaning only in the wider context of practice. To understand digitality from a relational anthropological perspective requires us to attend to the manifold encounters, interfaces and translations beyond digital logics. Beck was particularly interested in the effects of such translations and transformations on the *anthropos* itself, on “how the digital gets permanently under the skin” (Beck 2015: 4, translation MK). Focusing on practices as the core unit of anthropological analysis highlights the fundamental entanglement of what is conventionally called the analogue and the digital, as Beck emphasized: the

“analogue and digital do not belong to two worlds, rather we can observe permanent translations and organized transitions between analogue and digital; and that analogue and digital processes are so inseparably related to each other that only a more precise understanding of this relationality promises analytical gain. And finally, that the social should not be sought beyond but within the technological arrangements themselves.” (Beck 2015: 3, translated by MK)

Such a practice-oriented, anthropological approach to digitality remains especially sensitive to not only the ongoing translations and continuities but also the emerging gaps and glitches of integrating the virtual and the physical in everyday practice. A focus on practices and relations, therefore, offers an important corrective to one-sided promises of radical transformations through innovative digital technologies and logics – to the “hyperbolic dreams and dystopian fears” linked to digitality (Geismar/Knox 2021: 14). Ultimately, the call for a more-than-digital anthropology has similar aims to the call for a more-than-human anthropology (Gesing et al. 2018; Tsing 2013; Welz 2021), even though it obviously starts from the opposite direction. The prefix ‘more-than’ signals a problematic and consequential narrowing and emphasizes the need to train our sensibilities to investigate the actual practices of creating digital and more-than-digital relations.

Traces of Computers in Anthropology

While digital anthropology itself is a relatively new term, the role of computers in anthropological research was first addressed several decades ago. This discussion is often said to have begun with the publication of the 1965 volume *The Use of Computers in Anthropology* (Hymes 1965), itself the result of a conference on the same subject held in

3 Translation of the title by MK. The video of the lecture can be accessed through the following link: <https://electure-ms.studiumdigitale.uni-frankfurt.de/vod/clips/zuXoEQken5/html5.html>.

1962. When I tried to access the book for the preparation of my inaugural lecture, I came across the originally analogue paper index card of the book, which has been digitized for the online catalogue of the university library. Even though I used the 'digital tunnel' to access the library's online system, I would have needed to order the book itself in physical form from the Goethe University library, which has no digital copy. This was not possible as I was working from home in another city due to the pandemic. However, I wrote a quick text message on my smartphone to a friend who, although also working from home, was able to use another digital tunnel to another university library, enabling him to access the fully digitized version of the book, which he then made accessible to me via a download service. The core point of my little 'search history' here is that digitization is never simply a smooth technical process but, in practice, involves gaps and workarounds and, indeed, requires labor to navigate successfully, by me, my friend, the librarians, technical assistants, scanning devices, bibliographic systems, and so on. It is a truism in science and technology studies and anthropology by now that infrastructures usually remain invisible upon breakdown (Bowker/Star 1999; Star/Ruhleder 1996). What the story of me trying to access the book reveals, however, is that we can also grasp the only 'partial connections' of digital infrastructures if we remain sensitive to the many gaps and glitches with which we are constantly confronted, and the labor required to work with and around such infrastructures. One reason I was so eager to access the book was to trace a Levi-Strauss quotation used as its epigraph: "... the fundamental requirement of anthropology is that it begin with a personal relation and end with a personal experience, but ... in between there is room for plenty of computers" (cited in Hymes 1965).

It is unclear when or in what context Levi-Strauss wrote or said this sentence,⁴ but considering my use of digital tunnels, smartphones and online library systems in attempting to trace it, I would say that his words effectively capture my own search for the quotation. There was not only room but a necessity for plenty of computers and other digital devices to carry out this search. I first came across the quotation in a chapter from another volume on digital ethnography (Hjorth et al. 2016), published half a century after *The Use of Computers in Anthropology*. Levi-Strauss's words are discussed by three renowned anthropologists – Mike Fortun, Kim Fortun and Georges Marcus – in their text *Computers in/and anthropology: The poetics and politics of digitization* (Fortun et al. 2016). Noting the lack of metadata available for the quotation by Levi-Strauss, they further discuss the necessity and difficulty of digitally archiving ethnographic data and metadata, even (in 2016) "at this very different infrastructural moment" (Fortun et al. 2016: 12). The interest in digitization primarily as a methodological challenge and a tool for ethnographic archiving continues debates which were already central in

4 For a more thorough discussion of the use of computers in anthropology (which also starts with the quotation by Levi-Strauss), see the guest blog by Nick Seaver on the blog formerly called "savageminds": <https://savageminds.org/2014/05/19/computers-and-sociocultural-anthropology/#fn-11026-1>.

the 1965 companion. From an early point in anthropological study, the use of computers was considered less as an empirical target of an anthropological subdiscipline than as a starting point to address digitality as both a methodological challenge and potential for anthropology in general. Fortun, Fortun and Marcus state that “[t]he critical and experimental promise of digital anthropology [...] lies largely in the potential to enable more collaborative and open-ended ethnographic work/writing – across time, space, generations, and ‘cultures’” (Fortun et al. 2016: 13). They explicate this experimental promise by presenting their work on an open-source digital platform, the Platform for Experimental Collaborative Ethnography (PECE).⁵ The platform invites users not only to archive ethnographic data but, more importantly, also enables analytical collaboration between researchers. Through their experiments with archiving and interpreting ethnographic material in digital form, the authors explain that they have learned about the limitations of collaborative digital data infrastructures – but also about the potential of these infrastructures to produce what they call an “explanatory pluralism” (Fortun et al. 2016: 17). While I share their interest in collaboration – or co-laboration (Bieler et al. 2021; Niewöhner 2016) – within and beyond anthropology, I want to highlight here another learning outcome of their practical experiments to develop a platform for ethnographic data: the valuation of noise. The authors remind us of the methodological signature of anthropology as defined by Marilyn Strathern, the “deliberate attempt to generate more data than the investigator is aware of at the time of collection” (Strathern 2004: 4–5). This excess of ethnographic data, both in quantity and, more importantly, in generating various relations and interpretations, is, however, at odds with the digital form, which “tends primarily to reduce or filter out the ‘noise’ from which all information systems want to extract the ‘signal’ of truth and established meaning” (Fortun et al. 2016: 19). Experimenting with digital data infrastructures ourselves reminds us of the high demands of formatting, simplifying and standardizing data that is used in digitization processes, as well as that which is left aside, the noise. At the same time, the PECE experiment demonstrates the potential for the digital form to forge new forms of connectivity and collaborative work that remain mostly uncommon in anthropology. Overall, we, as anthropologists, need to remain sensitive to the specific logics built into digital infrastructures and their impact on data sharing and joint analysis – on our own work and that of our partners in the fields we study.

Before I continue with more empirical insights in the second part of this article, let me briefly sum up what I consider to be the main outline for a ‘more-than-digital anthropology.’ First of all, such an anthropological approach to digitality takes the technically induced differentiations and binary character underlying all processes of digitization and datafication seriously. Without understanding the workings of the ‘digital format’, we will not be able to scrutinize the powerful impact of the promised

5 <https://worldpece.org/>.

technological fixes for problems facing contemporary societies. However, being rooted in the tradition of a relational, practice-oriented anthropology, such an endeavor does not end at the technical moment of differentiating between zeros and ones. Rather, we need to attend to the manifold processes wherein the digits embedded in infrastructures gain a certain meaning through their integration in more-than-digital systems of value, and, thus, in new forms of relations and connectivity. Secondly, following the many translations along manifold interfaces is but one part of the story. As we learn, especially from our own experiences with digitization, for example, in response to the increasing demand to archive ethnographic data for potential reuse, we must remain attentive to the noise, the everyday mess that is difficult or impossible to translate into the digital form. We, as anthropologists and ethnographers, are and should be especially sensitive to this problem. From such a perspective, digitization is always already about the more-than-digital.

A More-than-digital FfM

To empirically investigate processes of digitization, I consider it crucial to attend to not only digital infrastructures and their world-making capacities but also mundane ways of doing ‘the digital’ in the context of specific lifeworlds. In order to link these two research interests, and following a long tradition in European ethnology which addresses urban spaces as laboratories of and for a civil society (Kaschuba 2015), I propose to use the city of Frankfurt as an example to center empirically on ways of ‘digitally seeing like a city’ – both from the viewpoint of the municipality and its citizen and civil society organizations – and to investigate how ways of knowing and living in the city are reconfigured by digital information infrastructures. In the following, I will outline two threads of ethnographic research, one addressing the digitalization of public administration and another focusing on citizen participation on and beyond online platforms.

Legibility of/in Municipal Administration

Public administration has been faced in recent years with demands to digitize its internal processes and its citizen services. Legal regulations, such as the online access act (*Onlinezugangsgesetz*) and the E-Government Act (*EGovG*), obliges public administration to digitize to a high degree, often flanked by calls for a data-driven or smart government. Municipal administration could be expected to be a highly fertile ground for digitization and datafication given the long-established tendency of public administration to generate large amounts of data regarding populations and territories, and the manifold administrative practices of categorizing, standardizing, processing, storing and sharing such data. However, the digitization of public administration remains a complicated and challenging process in Germany, to say the least. By the same token, the inherent challenges make it a particularly interesting case to study from the perspective of a more-than-digital anthropology, to understand digitization’s potentials

and challenges, continuities and transformations, and to ask how an integration of digital technologies, infrastructures and the digital processing of administrative data has consequences for the governance of the common good.

Municipal governance relies on data as the basis for planning and managing diverse public functions. A central function of municipal governments is the provision of 'services of general interest' (*'gemeinwohlorientierte Daseinsvorsorge'*). The history of the term 'municipal services of general interest' is linked to the rise of the social constitutional state in the late nineteenth century due to industrialization and urbanization. These were among the driving forces that led to a recognition of the state's responsibility to provide forms of communal welfare to the populace (or rather, to those who counted as citizens at that time), mainly through the provision of communal infrastructures, such as waste management and public transport systems. Developing and maintaining public infrastructures, and thereby generating data, has been the task of the state for much longer than this, and is inextricably bound to the rise of the nation-state and the production of knowledge regarding its population and territories. The anthropologist and political scientist James Scott has given a detailed description of some of these processes in the twentieth century, which inspired his phrase "seeing like a state". In his book *Seeing Like a State: How Certain Schemes for Improving the Human Condition Have Failed* (1998), Scott sets out a broad account of the recurring patterns of failure of central planning and social engineering by the state. He details how modernist states developed alongside large, standardized information systems, which produced knowledge to govern the population. Two points of his analysis are important: Firstly, he argues that representations of societal issues produced by large-scale information systems are always simplifications of local lived complexity. He likens these acts of representation to the creation of maps: A map can never create a 1:1 image of the territory it represents but, instead, creates an abstraction of that lived space. Secondly, Scott emphasizes that these simplifications, similar to a map or statistics (and I would add digitally produced datasets), are performative, in the sense that the state is acting upon phenomena according to how such phenomena are rendered legible. This legibility is instrumental in intervening in local practices with tangible effects. The point here is that data are instrumental in not only knowing but also intervening in and enacting public affairs, and, thereby, in constructing society as a particular object of governance.

The term "seeing like" has since been adapted to various other domains (Dourish 2007; Ferguson 2005; Law 2009; Seaver 2021; Tréguer 2019) and is in keeping with the focus on issues of legibility and standardization through infrastructuring in science and technology studies and anthropology (Bowker/Star 2000; Lampland/Star 2009). Approaches which complement Scott's analysis and adapt it specifically to the urban context, thus, "seeing like a city" are of particular interest here (Amin/Thrift 2017; Valverde 2011). Common to the framing of seeing like a city is a focus on the dynamic, patchy, and sometimes contradictory political, infrastructural and legal composition of

cities. The sociolegal scholar Mariana Valverde (2011), for example, argues that urban governance is less uniform and homogenous than seeing like a state. Cities are more like patchworks of related but not quite consonant areas of regulation and management. She states that, consequently, unity is a less pronounced feature of urban ordering, and there is more space for heterogeneous orderings, negotiations and responsibilities, which also involve premodern ways of seeing. What we encounter in cities is fragmentation, in both terms of scale and the nature of the municipality's affairs. This compositional quality of seeing like a city has been further developed by the geographers Ash Amin and Nigel Thrift (2017), who, in their version of seeing like a city, center on the infrastructural becoming of cities. Their main point is that cities are composed of multiple layers of infrastructures, and this compositional character of urban infrastructures is crucial to understanding the politics of seeing like a city.

Drawing from this body of work, I want to stress two key features in investigating digitally seeing like a city: Firstly, investigating the digitization of urban knowledge-production and governance must start with the highly fragmented quality of urban governance and the historically patchy character of municipalities and their infrastructures. In Germany, municipalities are divided into several administrative and political subunits. These units are politically and legally equipped with a high degree of autonomy and have developed their own data architectures, with the result that they aggregate data in different formats and on different scales to form a complex and patchy urban data assemblage. Secondly, what comes to the fore here is less an issue of homogenization and standardization than of creating forms of interoperability and recombination across data patches of only partially connected infrastructures. This leads potentially toward new compositions of knowledge production in and of the city. Such issues of interoperability and recombination are also crucial to the wider questions of digitization, reaching beyond the city and its administration.

Digitally Seeing Like FfM

Against this backdrop, I want to take a closer look at the digitization efforts of public administration in Frankfurt. The administrative unit coordinating Frankfurt's digitization (*Stabsstelle Digitalisierung*) presented a "city-wide digitization strategy paper" titled "Smart City FfM" (Stadt Frankfurt am Main 2020) to the public in 2020. In one of the introductory sections, the paper states the benefits of digital transformation for the provision of services of general interest:

"The digital transformation offers numerous opportunities, particularly in the area of services of general interest, to address the structural problems of municipalities with the support of digital solutions. Today's services, processes and technologies, which are often still analogue, can be comprehensively put to the test for the first time and reshaped in terms of efficiency, resource minimization, service expectations, networking and sustainability." (Stadt Frankfurt am Main 2020: 14)

A central paradigm for a digital transformation of services of general interest is the availability of data on the issues concerned. “Good data”, states another policy paper, is the basis for “good administration” (Polyteia 2020). The notion that is invoked in such policy papers is the idea of evidence-based policy-making and governance. This kind of data-driven urbanism (Kitchin 2017) stresses the potential of data to enable a seemingly neutral, apolitical, evidence-based form of responsive urban governance; however, as especially those critical studies in the social sciences with a focus on smart cities demonstrate (Dourish 2016; Marvin et al. 2016), data are produced by people and technologies embedded within socio-material relations situated within time and space. They are the result of data practices and modes of data governance operating within specific data cultures. The crucial question for a more-than-digital anthropology is: How do these promises of efficiency and transparency through data and connectivity play out in practice, when they are confronted with the conditions of a fragmented or decentralized city, as described by the concept of seeing like a city?

What usually remains uncommented on in policy papers and political visions of digitizing public services and administrative processes is the actual “data labour” (Amelang/Bauer 2019; Nadim 2016): the labor required to generate data, to render the latter interoperable across different domains and to provide them in a way that enables ‘smart’ analytics. I will provide some examples from the existing open data platform for Frankfurt⁶ to attend to the actual practices of “data labour” in the city’s municipality. The vision for the future is to develop this open data platform into a more encompassing urban data platform as part of the Smart City FFM concept. I interviewed members of the Stabsstelle Digitalisierung and also from other administrative units together with students of my classes at the Institute of Cultural Anthropology and European Ethnology at Goethe University.⁷ When we interviewed the person responsible for the city’s open data platform, we learned that the first step in opening up data consists of finding data. We were told that the problem is not the lack of data. In fact, public administration generates massive amounts of data; there are “*Datenschätze*” (data treasures) everywhere, waiting to be discovered. The problem is rather that, due to the decentralized architecture of public administration and its information systems, there is no shared register or data bank where one can see what data is available; instead, the person in charge must spend time finding data. As the interviewee explained to us, he periodically scrolls through the official web portal of the City of Frankfurt and the various websites of the departments to see if there are any mentions of new data; if he is lucky, he “accidentally” stumbles over data. In the next step, the operator of the data portal approaches the “owners of that data”, asking whether he can receive

6 <https://www.offenedaten.frankfurt.de/>.

7 I want to thank the students of the courses “On the Imaginaries, Infrastructures, and Practices of Openness” (MA STS) and “Digital Urban Society” (BA KAEE) for preparing and conducting the interviews together.

the datasets; if the data is available, he must make sure the data is “raw enough” and machine-readable; data sometimes come in a suitable format already, but often it is necessary to tinker with it, for example, by copy-pasting data into excel sheets. When the data is in a suitable form, he can make it available via the open data platform: to do so, data has to be classified under certain categories, which are partly preset by the actual data providers; furthermore, data is organized into certain “data groups”, which follow the preset metadata structure of the German national open data platform,⁸ which itself follows the specifications of a European Union working group. We obviously encountered on the platform what the geographer Ola Söderström and his co-authors (2021) have called the more-than-local references shaping the workings of smart urban governance. Taking a closer look at the datasets currently available on the platform, we find an interesting dominance of datasets from certain administrative departments, such as the “Citizen’s Office, Statistics and Elections” or the “Land Registry Office”; and also an obvious absence of data from other departments, for example, data related to environmental issues (e.g. noise, air pollution, temperature rises) which are not available here. This is especially striking as the environmental office is probably the most advanced when it comes to the datafication and digitization of its affairs. This particular absence is due to the fact that Frankfurt’s environmental data is gathered mostly by the environmental office of the state of Hesse, and there is no direct data link between this office and the open data portal in Frankfurt. As these examples indicate, ‘being open’ and ‘becoming smart’ require significant labor and depend upon particular social and organizational relations, forming part of a complex system of value exchange. As the computer scientist (and ethnographer) Paul Dourish has pointed out, smart cities do not usually develop according to a master plan but rather through an incremental and uneven process, and they should, therefore, be described as “accidentally smart cities” (Dourish 2016: 36). An ethnographic, practice-oriented approach to data-driven governance sheds light on not only the digital but also the more-than-digital workings of data sharing, and on the digital and more-than-digital contexts of smart urban governance.

Formatting Participation

Starting from administrative ways of digitally seeing like a city provides an entry point into larger research concerns about how digital infrastructures and platforms might re-assemble forms of democratic participation and accountability. Digital infrastructures have the potential to involve and align (new) civic actors and concerned groups in governance issues. Based on my previous research experience with participation procedures in policy-making in Berlin’s administration (Klausner 2021), I am particularly

8 <https://www.govdata.de/>.

interested in the way digital infrastructures may enable or disable the inclusion of different concerns and issues, other ways of seeing and living in the city.

Participation is one of the buzzwords frequently used across various academic fields, but also in politics, design, art, public health, social media, museums, and so on – often in fields that were until recently the exclusive preserve of experts (Chilvers/Kearnes 2020; Fish et al. 2011; Lengwiler 2008; Marres/Lezaun 2011). This participatory turn (Bherer et al. 2016) can be read as a redistribution of expertise and an attempt to incorporate a range of alternative actors and knowledge into processes of technological decision-making. As is common at such junctures, participation is sometimes celebrated as a solution to societal problems, at other times criticized as a way of co-opting and levelling political conflicts. The anthropologist Christopher Kelty, who has carried out substantial research on participation in recent years, summarizes this situation as follows: “[O]n one day, participation is the solution to our most practical concerns or even an ethical calling; on the next day it is a containment strategy designed to keep us chillingly in place or to extract data and money from us at every turn” (Kelty 2017: 77). He proposes that we attend closely to the specific forms and practices of participation, rather than a priori judge the actual enactments of participation. The framing of participation and the publics involved as emergent and fluid, rather than the assumption of a ready-to-participate public is key to such studies (Marres 2007). Jason Chilvers and Mathew Kearnes, for example, call for a rethinking of participation as a relational phenomenon, encompassing “multiple, diverse, entangled and interrelating collectives of public involvement within particular political constitutions, systems or issue spaces” (Chilvers/Kearnes 2015: 16). We need to attend to the specifics of the actual practices in various settings to provide an analysis of such relational ecologies of participation. The crucial questions are: How is participation formatted and pursued and what are the consequences in practice? These questions are particularly important for digital forms of participation. The Internet was welcomed as providing a whole new ‘architecture of participation’. Such a one-sided celebration of the democratic potential of the Internet has been heavily criticized and countered by highlighting the growing digital divide (Murthy 2008), the potential increase of surveillance (Bauman et al. 2014), and, more generally, the abandonment of ideals of participation and democratic values by mainly profit-driven manipulative digital services (Faßler 2020). Placing practices of participation in a wider, more-than-digital context is crucial to escape a techno-deterministic view of any sort.

Following up on the proposed analytics to investigate participation, I would, however, shift the focus slightly in two ways: Firstly, despite the declared necessary shift away from the very events and degrees of participation towards “ecologies of participation” (Chilvers/Kearnes 2015: 51), the focus of most studies remains on those participating – on the figure of what Kelty calls the “Participant” (Kelty 2019). A crucial finding in my previous research into the practices of participation in Berlin’s administration

was that we need to consider the hinterland and infrastructures of participation, especially in projects that embed public participation in the affairs of the municipality. Participation is often scrutinized as an issue of degree: Are citizens merely informed, asked to agree or actually invited to participate in planning and decision-making? This normative framing is regularly evoked by the so-called “ladder of citizen participation” first developed by Sherry Arnstein (1969), which has dominated participation research for several decades. What became a pressing question in my research in Berlin, however, was this: What is the ladder positioned against? A closer look at the wider context of participation reveals how factors that shape the conditions of participation fundamentally were actually decided at other times and other sites. Degrees of participation are not simply the result of an intentional decision; instead, they are influenced by factors such as complex organizational structures, legal regulations and, again, more-than-local references. To link this to my earlier discussion on seeing like a city: Where and how is participation embedded in digitally seeing like a city? A second point relates to the hinterland of those participating and their resourcefulness in engaging with politics in various ways. One of the most interesting lines of conceptual work in recent years emphasizes the dual, experimental character of participation. Participation is both an object of investigation and tightly linked to our own methodology, as studies in anthropology and science and technology studies have shown (Chilvers/Kearnes 2020; Lezaun et al. 2016). Just think about anthropology’s traditional method: We consider ourselves as observing participants in the fields we study. In recent years (and this is especially true for science and technology studies), participation has also become an explicit experimental tool for intervening in the fields we study. Scholars such as Nortje Marres (2015) and others (Bellamy et al. 2017) propose that we look at participation as an experiment, and also pay close attention to the devices and materials employed. One of the aspects Marres and others highlight is the inventive force of staging participation as part of our own research agenda. Engaging in experiments of participation as part of our research then enables us, as scholars, to learn and reflect on the very constitution of participation, the “grammar of participation”, as Kelty (2017) has called it. And this is similar as we reflect on the digital form through our own use of computers. I consider this learning effect crucial, but I would expand this idea of a ‘reflexive’ use of the grammar of participation to those participating. As I will show, such a focus brings about unintended ways of questioning, experimenting with or countering proposed forms of engagement on the part of the participants.

Frankfurt’s Grammar of Participation

In order to exemplify this shift, I will take a closer look at another of Frankfurt’s online platforms, www.ffm.de (*Frankfurt Fragt Mich* – Frankfurt Asks Me), the city’s central online platform that aims to “involve the citizens of Frankfurt in decision-making pro-

cesses to help shape their living and working environments”.⁹ It functions as a portal to all pending participation processes in the city – from the planning of new urban quarters to projects addressing the participation of young people or immigrants. The core of the platform is the so-called “Platform of Ideas.” Citizens are asked to place an idea on the platform and gather support for it. If an idea finds at least 200 supporters, the city council promises to examine the proposal and report the result on the website. There are twenty categories for ideas, such as traffic, energy and environment. Again, my students and I had the opportunity to interview two members of the team responsible for the ffm platform. We gained insights into how the “ideas” of Frankfurt’s citizens are processed in the administrative hinterland (e.g. we learned that there are actually up to sixteen offices involved in issues of waste management), and the actual formatting of participation through what our interviewees described as a toolbox for participation underpinning the platform. This ‘toolboxing’ or platformization of politics and participation implements a specific form of digitally seeing like a city: It simplifies and represents complex concerns and issues, and, thereby, intervenes in how problems raised by citizens are considered legitimate and relevant for decision-making processes. In addition, it invites citizens to participate in this simplification and intervention – to digitally see like a city.

When scrolling through the numerous ideas and exchanges on the platform, we find a considerable number of examples that play and interfere with the very idea of participation. In some cases, ideas proposed want to intervene in the very setup of the platform, demanding new categories or questioning the seriousness of the participation allowed. We find users cross-referencing other ideas, comparing their own number of supporters with others. In several cases, idea providers use the platform not just to gain support and publicity for their cause but also as an element in a network of protest and citizen engagement activities. As part of a much wider ecology of participation, the platform serves not only as a contact zone for direct negotiation with the municipality but also as a link to other sites and issues. This decenters the platform and locates it within “a-more-than-digital politics”, as Ignacio Farías and Sara Widmer (2017) framed a similar finding of forms of participation in their work on citizen-engagement in smart city projects in Munich.

I want to focus on one example from the platform, an idea posted by the citizen initiative Riederwald in May 2015, to explain this reflexive use of the grammar of participation: “Finally protect the people of Riederwald! No exceeding of the limit values for pollutants and noise during the construction and operation of the Riederwald tunnel!” The focus of their concern and protest is the construction of a tunnel which is causing great disturbance to the residents in the area. In the description of the idea, the initiative describes the massive negative impact of noise and air pollution during the first

9 Taken from the website: www.ffm.de – translation by MK.

phase of construction of the new tunnel; they describe the specific effects on people and places in the neighborhood, including on retirement homes, schools and kindergartens; they refer to existing legally defined limit values which were exceeded; and they propose specific measures to compensate for the impact of the construction. Their crucial aim is to bring together environmental and health data and demand that the municipality act upon this. This successful idea, which gained 600 supporters, prompted a statement from the administration explaining certain legal norms, and referring to other responsible political stakeholders, such as the state of Hesse. This statement then received a response from the citizen initiative in the form of an open letter, which again resulted in a statement from the administration. Throughout this exchange, the initiative also directly addressed the promises of participation offered by the platform, citing the stated intentions of ffm, and comparing their issue to other ideas to illustrate their high degree of support. Furthermore, they countered certain interpretations regarding limit values, challenged the referral of responsibility to other political bodies, and referenced studies correlating air pollution and health hazards, especially among children and senior citizens. The initiative was clearly operating here within the acknowledged system of communal politics and the logics of governance. The anthropologist Hanna Knox has described such forms of activist engagement in official politics and administrative workings as “propositional politics” (Knox 2020: 230 ff.), which operate within the logics provided by official political institutions. Such propositional politics mimic and experiment with rather than openly oppose conventional political decision-making and planning procedures.

To interpret such practices of participation simply as instances of co-optation and manipulation by official politics would negate their generative force in not only challenging those offering participation, but also generating publicity and cultivating networks across different sites. A closer look at the Riederwald initiative, and many other examples on the platform, shows how the platform has become only one element in a wider set of digital and more-than-digital forms of protests and activities, which are resourcefully used by the initiative to pressure the administration to take their concerns seriously. As I am writing this article, more than six years after the initiative posted their idea on the platform, the tunnel is not yet completed and many issues remain the same. However, today, the initiative is part of a much larger alliance of initiatives and actors which together aim to intervene in urban traffic planning and climate change mitigation in a much broader and more fundamental way.

What these insights into some practices of online participation have hopefully demonstrated is the need to decenter our analytical focus from the activities of online participation to the wider digital and more-than-digital contexts of these practices. The digital form undoubtedly shapes politics and public engagement in many ways and can potentially reinforce the power imbalance between the municipality and its citizens. However, seeing such practices of participation as part of a wider, more-than-digital

ecology enables us to sidestep the dominant techno-deterministic framing of digitality as something that either liberates or manipulates users. Rather – and this will be a key part of my research in the future – a more-than-digital anthropological account of participation and administration remains open to the often unexpected ‘looping effects’ of both participation and digitality.

Concluding Remarks

The call for a more-than-digital anthropology, as outlined in the first part of the article, functions foremost as a ‘decentering device’: while remaining aware of the impact of digitization on urban politics, participation and governance (and beyond), it, nevertheless, positions anthropological research on ‘the digital’ against any *a priori* essentializing assumptions about the digital and the analogue, fostering instead an analytics that is interested in illuminating the manifold relations and transitions that enact ‘the digital’ in different ways. Sharing some resemblance with other ‘more-than’ prefix uses, it signals the consequential and problematic narrowing following conventional conceptual bifurcations: of human, nonhuman and/or more-than-human actors, of physical vs. virtual worlds, the social and natural as distinct domains of the sciences, and a differentiation of the impact of culture and technology in more or less deterministic ways. ‘More-than’ redirects our theoretical and ethnographic focus on the ongoing transitions, translations but also gaps and glitches we encounter when we focus on practice as our core analytic unit (Beck 1997). Such a theoretical and ethnographic decentering also enables us to remain attentive to both historic continuities and emergent conjunctures when we engage with digitization efforts and its potential effects. And, as I have demonstrated throughout the article, it particularly gains insights from our own engagement with ‘the digital format’ – with collaborative platforms, data sharing infrastructures, and experiments in participation, or with digital methods in general, in a co-laborative manner. It is my conviction that widening our focus in this way enables us to genuinely learn more about digitality, its intended and unintended effects, and its potentials and limitations.

With my explorative empirical insights, I have added some empirical flesh to these abstract ideas and demonstrated how such an approach shifts our attention to the wider contexts of smart urban governance and citizen participation: to the labor involved to work with only partially connected infrastructures and the wider networks of more-than-digital politics of citizen engagement. I see many promising avenues to follow further: from the platforms presented to the hinterland and more-than-local scales of policy-making and governance; the actual devices measuring air pollution at a construction site; the processing of such data within but also across different administrative and political bodies, or by other agents of expertise; the experiments to create new convergences and recombinations of such data; and last but not least, the ways in

which citizens use the digital form to negotiate and contest official politics, and their efforts to create new public issue spaces.

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