Design Technology Society

DATA PUBLICS

Public Plurality in an Era of Data Determinacy

edited by

PETER MÖRTENBÖCK and HELGE MOOSHAMMER



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Introduction

Peter Mörtenböck and Helge Mooshammer

Data is not a property but a relation

The rise of data to become a key component of encounter and interaction has profoundly changed both the way we live our daily lives and how the world operates globally. By claiming to offer a mechanism to translate every conceivable occurrence into an abstract code that can be endlessly manipulated - copied, amplified, distorted - digitally processed data has caused conventional reference systems such as proximity and distance, size and scale, which hinge on our ability to mark points of origin, to rapidly implode. If, for the postmodern subject, as famously argued by Fredric Jameson in 1991, it had become impossible to locate itself in space and time (Postmodernism: or, The Cultural Logic of Late Capitalism, p. 44), then this is even more true for 21st century citizens faced with data-driven environments that champion the disruption of existing social, economic, and political orders. Being made to believe that life today means that anything can happen anywhere anytime, feelings of confusion, agitation, and anxiety have become dominant features in the way we relate to one another and to the world around us.

With this volume we seek to respond to this experience of disorientation and fear of heteronomy by probing the social, political, and economic coordinates of data now crucial to concepts of governance and the imagination of the civic. What new ways of thinking do we need to open up to address the daunting complexity involved in defining what currently constitutes public space and political economy? The rapid expansion of non-physical spaces within the 30 years that have passed since Jameson made his prescient observation means that what now counts as extended realms of the public domain impacts both the gathering of data and a multitude of publics. Can this fundamental tension force practices of understanding to emerge that are dedicated to an expanded awareness of data as a new arena of public life?

Beyond data anxiety

We need to acknowledge the sheer forcefulness with which the acceleration of data has come to constitute one of the most powerful transformative experiences in the modern world. In many arenas of everyday life, we take advantage of the expanded possibilities and increased speed with which we can connect, exchange, and interact beyond our immediate physical environment. Yet, besides improved convenience and heightened enjoyment, one of the most dominant phenomena accompanying this change is fear. Fear of malign forces accessing our inner privacy. Fear that arbitrary interests may take control of our movements, thoughts, and choices without us ever being aware of it. At the same time, there is a widespread sense of worry about the uncontrollability of the digital sphere, whose incessant growth seems to elude every established mode of governance.

These concerns bring to mind the uncontrollable nature that Elias Canetti attributed to what he called the "open crowd", a social entity he saw emerging in 19th-century urban upheavals and in 20th-century mass societies (Canetti, 1962). Canetti's figure of the crowd has become the epitome of collective entities forming in the wake of political destabilizations and the withering away of state sovereignty in late modernity. Consequently, the crowd and its alleged aim to grow indefinitely by seizing everyone within reach have variably been subject to both contempt and political manipulation. Throughout the decades, populist movements have readily exploited the intense investment of collective desires associated with crowds, packs, hordes, mobs, gangs, and other types of politically unsettling social subjects. The radical corruption and exploitation of desire that Deleuze and Guattari placed at the root of fascism's appeal to the masses (Deleuze and Guattari, 2004), to mention just one of many examples, went hand in hand with a systematic assault on the constitution of political order. Such encroachments on the tradition of sovereignty have not only thrown into relief significant moments of overcoming what Canetti diagnosed as a profound human fear of being touched by the unknown, but also highlighted much wider ambivalences threatening the stability of the physical, psychological, and ideological boundaries of subjectivity and what constitutes a collective entity.

Forms of representation that have hitherto enabled social entities to manifest themselves in action – nation-states, political parties, regulatory authorities, professional associations, unions, etc. – are increasingly losing their traction, giving way to new forms of sociality that are not contained by traditional notions of the people or the public. Competing kinds of global social fabric seem to be emerging that are neither homogenous in terms of composition and experience nor constitutive of more even geographical development. The enthusiasm and relationships sometimes generated by such acts of becoming (or multiplicities in Deleuzian terms) (Deleuze and Guattari, 1980, trans. 1987) and the territories they constitute are challenging the old static and universalizing notion of the public, promising to provide solutions that better fit the evolving needs of populations. In the wake of this transformation, familiar conventions of government reliability have given way to a default governmentality designed to induce citizens to internalize the goals bestowed upon them.

While there is still a great deal of hope, especially with regard to digital initiatives, in the potential of democratic, participatory, and bottom-up political transformation to confront the persistence of growing global inequality, ongoing processes of neoliberalization and their effort to disrupt and dismantle existing public institutions also hinge upon the active mobilization of people in the digital realm. The dissolution of social contracts is increasingly being banked on in the corporate production of algorithmically controlled environments that regroup and aggregate dissociated singularities into value-oriented profiles for a better "user experience" and, by extension, higher profit margins. The redefinition of citizens as entrepreneurial consumers has become the ultimate objective under the spell of neoliberal rationality, with competition implemented as the defining characteristic of human relations.

It is therefore vital to discuss the quality of emerging forms of online civic cooperation not just in relation to the excitement of short-term, spontaneous, and open-ended experiments, but with regard to the gap between the modest scale of such attempts and the global crisis that they seek to address, as well as with regard to the need to stabilize these attempts in a project that requires long-term coordination, binding rules, and stable institutions (Brenner, 2017, pp. 128–146). Such multiplicities are prone to be targeted, corrupted, and exploited by powerful actors within the digital network economy, eager to build profitable "social infrastructures" in the name of a truly global society. Both the use of techniques of governmentality elaborated by Michel Foucault in Security, Territory and Population (1977-78, ed. 2007)¹ and the technological devices of data capture applied to emergent socialities via mobile devices, sensors, and digital platforms can be seen as turning the openness and connectedness of irreducible multiplicities into qualities that are responsive to political and economic valorization. Amidst these shifting imaginaries of belonging, order, and security vis-à-vis the self's social environments, our inherited notion of the public is transformed by processes of fragmentation, financialization, and datafication.

Data citizens: emerging socialities and sovereignties

While under the auspices of modernity, the public sphere was largely elaborated through spatial analogies that foreground a physically tangible division between the public and the private, between rights of ownership, control, and usage, the contemporary public sphere of data can no longer be comprehended in such terms – as a static, albeit progressively opaque, environment that we simply traverse. A universalizing order, where everyone and everything is placed in relation to one another, has been superseded by a system of dynamic management, in which socio-economic currencies such as access, belonging, and potential are folded into each other. Increasingly "user generated", today's data publics bring with them a profound blurring of the capacities, roles, and motivations of different actors. From

digital citizenship to peer-to-peer networks and from online community services to virtual support groups, there is an increasing range of sites that are data dependent or data driven and in which individual, commercial, and governmental agendas and interactions are becoming increasingly blurred. Traditional power apparatuses of national governments are confronted with the global reach of digital providers. Citizens become enlisted in the self-servicing of the social, cultural, and infrastructural fabric of societies.² And affective capital such as desire and identification, fear, and rejection turn into the most decisive currency determining the fate of new technologies and their associated economies.

The public of these new data publics is thus a multi-faced figure. In that it is implicated in its own generation, conventional political paradigms such as the protection of rights or the division and demarcation of powers fall short when it comes to engaging with the dynamic realities of the digital realm. The trivialization of friendship, intimate bonds and emotional attachment through social media has reshaped traditional ideas of conviviality and companionship in favor of abstract patterns of social connectivity that can be quantified, valorized, and monetized according to each user's unique performance level. And in much the same manner, work is no longer a specific place determining one's professional life but a constant demand for labor-performing tasks embedded in the development of a new social fabric. Informal organization in the form of short-lived, direct, and unstable agreements is thus coming to constitute a dominant way of life in which work, culture, education, and the social are beginning to orientate themselves to global economic interests and their mechanisms to such a degree that the market orientation of social relations Karl Polanvi saw as a corollary of the industrial and bourgeois political revolution (Polanyi, 1947)³ is becoming an all-encompassing idea.

With government agencies seeking to be riend us, tech companies in search of the next market luring us into conversations with AI-enabled chatbots, and mayerick politicians utilizing the emotional charge of popular internet memes, traditional sources of truth and belonging are being eclipsed by a new mode of public interaction, one shaped by the logics of interface technologies, instant consumption, and short-term alliances. What we are going to leave behind in one way or another are Western traditions of political thought in which the notion of the public is bound up with distinct models of democracy and the nation-state. This includes ideas of territorial belonging, the stability of political institutions, reliable rules and legislation, and other state-centered instruments that have traditionally formed the basis of the assertion of political claims through the concept of citizenship. The rise of data regimes to the forefront of civic life has highlighted a critical shift in our understanding of notions of mobility, citizenship, and land use, which are now seen as interrelated, flexible, and contingent practices rather than as defined by administrative or regulatory means. It has also shown how new modes of citizenship are being produced at the intersections of international corporate interests, the differentiated exercise of state power, and the contingent struggles of citizens themselves (Ong, 2006) and thereby extending the concept of citizenship beyond the idea of the enjoyment of territorialized rights. Along with the erosion of nationally and territorially bound citizenship and the bottom-up struggle for new forms of cultural, social, and economic participation, rendering into data all aspects of our life has brought about new kinds of public spheres that offer variegated access to a range of on-demand services (transportation, logistics, marketplaces, education, food, etc.), fusing political and economic interests with processes of subject formation.

In his unfinished 1930s novel The Man Without Qualities, Robert Musil wrote that "Before the law all citizens were equal, but not everyone, of course, was a citizen" (1953). Musil's 20th-century concept of the citizen is only applicable in modified form to the strangely unresolved hybridities confronting us today: the subject without qualities of the 21st century is characterized by the question not of whether someone counts as a citizen but of which components of citizenship are part of an individually claimable package. The life without qualities can no longer hope for stability, especially given the permanent erosion of the prospect of overcoming crisis situations by means of a decisive event. Mobility has become a fundamental constant of globalization and with it the compulsion to be constantly cognizant of the accumulation of strategic values that make one a worthy citizen. A discourse of citizenship has thus taken shape that is almost exclusively orientated to the ability of citizens to contribute to economic growth. Central to this transformation is the destabilization of previously exclusive links between nation-state territories and citizenries in favor of a "contractualization" of citizenship aligned to the guid pro quo principles of market relations (Somers, 2008) – economic viability, efficiency requirements, competitive pressures, and terms of trade. The way in which labor forces are absorbed into economically successful regions and how profit can be generated with them are increasingly shaped by neoliberal strategies seeking to implement and exploit conditions of permanent crisis (economic, social, or environmental) and exception. The creation of zones governed by various forms of sovereignty, the flexible bestowal of graduated legal titles, and the specification of immigrant contingents based on professional qualifications are some of the consequences of this development (Ong. 1999).

In addition to these factors, the situation has been exacerbated by countries contesting traditional forms of citizenship through digital residency schemes that allow citizens from one country to acquire additional transnational digital identities in another country. To expedite the increasing de-territorialization of government functions, e-residency programs are promoted along with the creation of data embassies for the storage of sovereign data, government clouds, and government-friendly cloud regions. Estonia's e-residency program is one such pathfinding digital gateway that offers entrepreneurs access to business opportunities across the European

Union by using a government-issued digital ID card to establish and manage companies online. The program sells the right to enter a market that would otherwise be closed to the buyer but does not confer to the purchaser any rights pertaining to citizenship, physical residency, or entry to a particular country. Although it is argued that the potential for public participation is enhanced (and its geographical reach expanded) by these new forms of data citizenship, the democratic qualities of public life are reduced from full citizenship based on the conviction of being equal to the rest and having the same rights and obligations to a status based on different models of entrepreneurial ecosystems, elastic enclaves focused on citizens' capacity to contribute to economic growth.

The rise and enclosure of user-generated publics

What the ongoing redefinition of citizens as users, participants, consumers, entrepreneurs, or investors demonstrates is that the way we inhabit and relate to increasingly complex spaces today, including non-physical and technologically augmented spaces, has set in motion an extended concept of the public, one that seems to be much more in sync with new forms of digital, transnational communication, with new technological knowledge and skills, with newly emerging institutional protocols, and with the flexibility of changing beliefs and persuasions. The erosion of a state-centered notion of the public, along with the explosive growth of mobile and social media, has given rise to an increasing acknowledgment of multiple, co-existing publics, hegemonic as well as marginalized ones. The way we tend to encounter the plurality of such publics today is no longer in relation to clearly defined political projects (or open-ended discursive relationships) but in terms of spatialized and embodied forms of lived experiences and everyday practices.

Many authors, including Judith Butler (2015), Noam Chomsky (2012), Michel Feher (2018), and Evgeny Morozov (2012) have pointed out how "data publics" have played a vital role in political protest movements over the last few years and how new forms of political assembly in urban centers are linked to the use of new digital communication technologies as well as to their capacity to address very specific demographics. From the Arab Spring uprisings and the struggle of the Occupy movement to the Me Too campaign and the Black Lives Matter movement, cloud-based software, social media, and mobile applications have enabled large sectors of urban populations to be part of the game. These new forms of publics have also shown that some of the digital platforms that seem instrumental in voicing public concerns are also increasingly important arenas of economic governance. Be it Facebook, Twitter, Instagram, or other social media sites – these platforms are part of one of the fastest growing markets in today's global capitalism, offering almost unfiltered access to millions of lives as well as to all the creative ideas and activities that form the basis of today's publics. In economic terms, these media and technology platforms form an unparalleled asset class that expands the existing venture-capital ecosystem by combining financial interests and purposes of governance into a heady cocktail of strategic intelligence tools.

Against this background, it is easy to observe how the increasing plurality of publics and their particular inclinations and activities have become a distinct form of capital, one that can be put on the market or turned into political currency the moment it emerges, by mining and clustering the data that constitute particular kinds of publics. This is where the appeal of analytical methods and decision-making tools such as predictive analytics, forecast modeling, and machine learning comes in, and explains the force with which these technologies have started to mold the values, ambitions, fantasies, fears, and desires of citizens around a new set of logics. Caught between ideas of emancipation and exploitation, new socialities are emerging that are self-generated but know little about themselves, while others seem to know a lot about how to exploit their structures, their ambitions, and their desires. Mounting calls for users of digital platforms to start policing content themselves reflect the fact that these platforms are becoming an ever more expansive force thanks to the exploitation of extra-economic components such as trust, shared assumptions, belief systems, social bonds, and emotional attachment - components that are turned into measurable practices by platform providers to ensure values really are "lived" and open up new market opportunities. Technology-enabled platforms are key to how we are enrolled in embracing the new imperative of being good and productive digital citizens. They have become a widely adopted means of enclosure utilized to manage and manipulate the complexities involved in the constitution of data publics.

For all these reasons, our collective ambition needs to go well beyond conventional arguments centering on data appropriation and data refusal. We need to challenge the understanding of data as contested entities that can be adequately settled by concepts of ownership and control, especially in light of political initiatives aiming to establish new frameworks for data governance. Most government responses attempting to conquer rising fears of data among the populace have so far focused on measures relating to the distribution and enforcement of rights attached to data that can be defined as the property of someone or something. Most notable in this context, at the time of editing this volume, have been the actions of the European Commission and Parliament around the implementation of the so-called "General Data Protection Regulation" (GDPR). In force since May 2018, the GDPR's main intentions are stated as "people having more control over their personal data" and "businesses benefitting from a level playing field" (European Commission, 2018).4 Throughout the regulation, the GDPR keeps linking references to the fundamental rights and freedoms of natural persons with an insistence on ensuring an unrestricted flow of personal data within the EU internal market (EU Regulation, 2016).⁵ This dual objective is clearly no coincidence but ensues directly from a growth-oriented economic assessment, in which the spread of data fear (i.e., an increasing reluctance to engage in data-generating and processing situations, whether these arise through contact with public authorities such as hospital trusts or with private businesses) is recognized as a significant obstacle hampering the "strengthening and the convergence of the economies within the internal market". 6 Hence, the repeatedly reiterated emphasis on a strong and coherent data protection framework, backed by strong enforcement, in order to create "the trust that will allow the digital economy to develop across the internal market" 7

In everyday reality, the application of the GDPR has triggered the birth of a whole new market of service providers offering fee-based data management to public and institutional bodies, including universities, hospitals, local housing authorities, and infrastructure providers, as well as to private companies, who are all anxious to minimize their exposure to the new legal and potentially severe financial risks. Similarly, rather than feeling they have gained rights through the establishment of the GDPR, most individuals primarily see it as exposing them to further responsibilities on top of their existing tasks as dutiful economic subjects. This sense of being overwhelmed, of lacking the necessary tools and being forced to surrender supposedly personal rights to profit-seeking consultancies points not only to practical flaws in these efforts, but also to significant effects engendered by the definition of data applied in this context. Prevalent neoliberal policy approaches, which perceive publicized fears of technological change as an economic hindrance, are directed toward curbing and reining in such uncertainties through actions of control and demarcation. The underlying bias toward seeing economic growth as irrevocably founded on the expansion of trade⁸ propels a stubborn vision of data as a form of property.

These views are prioritized for obvious reasons. Irrespective of the use of the adjective "personal", the framing of data as property is designed to pave the way for a neat and frictionless transition of data into a tradable commodity with a monetary value. From the perspective of the market, the conception of property as a characteristic is just a short step away from the conception of property as a commodity. Both conceptions indicate a particular relationship of belonging, a process stabilized through legal, cultural, ideological, and economic conventions. However, it is this step from property being contingent on numerous variables, which help describe its character, to property being contingent solely on its exchange value that allows for the packaging of complex social and political tasks into abstract tradable entities. Here, the artifice of approaching data regulation as a combined legal matter of citizens and markets creates an operational terrain in which obligations to protect the fundamental rights of natural persons can be brought into line with demands for unhindered market flows. As a result, data fear becomes an issue of risk management, facilitating as well as being facilitated by the business of an unrestricted market.

Dispossessing data

The blurred distinction between the rights of social subjects and the rights of private property has long been at the heart of struggles that confront the ideological bias of modern legal theory toward conceiving every aspect of the human subject as property owned by the individual (Hardt and Negri, 2004). These struggles have intensified in recent years, rallying against the softening of boundaries between human needs and property demands advanced by the enclosure of data as property. To counter the idea of "possessive individualism" (Macpherson, 1962), a different relation between the One and the Many has been advanced over recent decades, one that is based neither on the idea of (subjective and material) property owned by the individual nor on state control, but on the idea of the commons. Acknowledging the irreducible multiplicity of movements, networks, and socialities that are emerging in activist, bottom-up initiatives on- and offline, this model is based on the concept of multiple forms of commonality constituting the foundation of the singularity of social subjectivities (Hardt and Negri, 2004, p. 202). When thinking about ways of counteracting the ongoing dynamics of data enclosure, we can take our clue from the concept of the commons and reframe the notion of data in a way such that data is not understood as property but as a relation – a fairly simple proposition, but one that has far-reaching ramifications.

As a mode of meaning-making, data comes into being only in a situation of exchange, in an encounter with an element outside ourselves, with something or someone "other". Data is constituted in that moment of encounter as a means of expressing, describing, and navigating this transitory situation. To put it differently, rather than being a piece of property, data is both a way and a form of articulating a relation. What is therefore at stake is not so much the question of what value we put on data but how we value the relations that underpin the generation of data. That is to say, what matters is not what price we demand for our personal data but how we care for our relations unfolding in the social sphere. If we accept that data is not at all a form of personal property, something that belongs exclusively to us, but is the result of a collective effort, we can start to think about different forms of care and about different forms of institution that can take care of these relations. 10 Rather than treating data as a stimulant of the neoliberal market economy, we might then begin to understand it as the intermediation of a new type of commons, as something that is collectively generated, managed, and cared for.

Continuing this line of thought, we can also discern that for data to come into being requires some kind of interface that records and acknowledges our interactions with someone or something else. This interface can take on many forms, ranging from our individual memory to the reference systems of cultural norms and values, and from artistic interpretations to globe-spanning recording machines. As a differentiating relation, data is generated at the intersection of a moment of encounter and an interface recognizing

and seeking to delineate the elements involved in this encounter. Such critical encounters enable those involved to continuously constitute and reconstitute themselves, examining one another's perspectives and reflecting oneself in or as another. What we want to propose here is that it is these moments of encounter, the moments of interaction and recognition, in which we can locate the constitution of "data publics".

For this sphere to emerge, we need some kind of framework that provides the background against which a particular set of data – socially, temporally, and spatially contingent processes – can be exposed and recognized. Contemporary cities, for instance, function as such interfaces, requiring us to ask how they are set up to produce and deliver particular forms of recognition and, by extension, particular sets of data. Are the workings of our cities biased to (re)produce such forms of recognition that render us legitimate or illegitimate through particular modes of categorization such as racializing data practices. Are the institutional metabolisms of our cities geared toward specific sets of interests? Are they, for instance, skewed toward imperatives of productivity, prioritizing forms of recognition in which only our capacities to work matter? How fast can we move from A to B; how readily can we become available as a work force?

If we want to argue for the proposition of data as relation and not as property, it is crucial to reflect upon the structures and terms of recognition that are in place in cities and other environments, the performativity of data and its potential to yield different kinds of subjectivities as well as the character of relations recognized by data-mining techniques. In this context, it might prove fruitful to go beyond the immediate, digital technologyaided sites of recognition - electronic cameras, embedded sensors, signal processing devices, etc. - within the urban fabric as such and raise more fundamental questions about the persistent desire and need for the recognition of emerging data publics and their struggle against the conditions of data capture that cause certain groupings, movements, or socialities to be advantaged and others disadvantaged. This is a struggle that puts the finger on what Judith Butler has aptly described as the hegemony of an unequal distribution of recognizability: i.e., the relations of power that determine the structure and "realness" of data by recognizing particular relations as valuable while disregarding others. This kind of recognition, Butler suggests, "becomes a problem for those who have been excluded from the structures of political representation, and who will be denied access to such structures" (Willig, 2012). Indeed, many new technologies of data capture, analytics, and reporting impose schemes of recognition that determine our individual recognizability and hence limit the possibilities for many lives and relations to be recognized as real. They produce the norms and conventions that make human beings recognizable and exploit the vulnerabilities that enable recognition in the first place.

While in Butler's terms the subject is never generating data outside of the boundaries that determine what can become an object of recognition, since the scene of recognition is always preconfigured by powers and norms preexisting interpersonal encounters, the power of subversive resignification lies precisely in the expropriability of the dominant discourse (including the discourse that renders data itself as property), in its failure to give a full account of who we are (Butler, 2005). And while there is a need to insist on a fundamental opacity, impenetrability, and shared blindness about ourselves and on the impossibility of absolute and complete recognition (Butler, 2010), there is simultaneously no way to deny that generating data in performative acts of relating to one another has a "plastic action" (Wittig, 1985) upon the real, provoking conditions of plasticity that are subject to alteration through continuous communicative practice. The relationality that lies at the core of data is both reinforcing and undermining who we are and what we know about ourselves. But it cannot be sustained in its invariable plurality if there is no movement beyond the logic of owning and disowning, movement that engenders an unbiased and equal distribution of recognizability.

The schemes of recognition that are currently in place in everyday interpretative frameworks in the form of data capture infrastructures do little to acknowledge the intrinsic demand formulated by this plurality. Determining the usefulness and uselessness of data by deciding who or what is worthy of recognition, whose relations are recommended to be endorsed, and whose communications are irrelevant to the further development of digital environments, prevailing apparatuses of data capture tend to reinforce the norms and conventions that support existing operations of power. For a more democratic and pluralistic vision of cohabitation to emerge, it is therefore vital to challenge the politics underpinning the current schemes that regulate and distribute recognizability and to shift the debate from questions of appropriation to the quality of relations created in our encounters. In this shift, taking care of data ceases to be a question of enclosure, ownership, and control but a process in which alterity and its sphere of becoming can be understood as the commons of multiple data publics. It is this struggle for and against recognition that lies at the heart of emerging data publics. This struggle manifests our involvement in political processes that seek to redefine practices of engaging with the unbounded diversity of ourselves and our encounters. It helps us think through the various natures of these relations: how they come into being, what propels their development, and how they are embedded in flows of affect and desire, as well as in the logics of speculative economies.

Dataism and the legitimacy of claims

An important part of the motivation behind compiling this volume is the heightened awareness of the way in which the algorithmic strategies of today's global techno-capitalism are intervening in the fabric of our every-day experience, and of how they are tying the management of future life so closely to computation and digital media. Day after day, we are seeing

the emergence of new forms of data analytics, dataveillance, and algorithmic governance, and these technologies are bringing into focus the complex links between digital companies, platforms, intermediaries, governments, and users. While there is still a considerable lack of transparency about how these links are forged through distinct sets of operations, through the creation of hybrid data environments, new governmental techniques, and new technological devices, their impacts are becoming ever more tangible and pronounced: we are living in a time when not only has a global market orientation taken hold of everything we do, but an all-encompassing *data mentality* has become an imperative for the new citizen. A kind of "dataism" seems to be emerging as the new religion that one needs to embrace in order to be part of the production and accumulation of value, whether in terms of new modes of environmental data gathering, the development of political constituencies, or the mining and quantifying of previously unquantifiable categories such as trust, appreciation, and attitude.

In response to this situation, it is necessary not only to shed light on newly emerging routines and protocols in the context of a global-data and communication economy, but also to develop new perspectives on what constitutes "public awareness", "the public domain", and "the public interest" in an increasingly post-institutional world. What is therefore vital when attempting to retain the term "public" in some way is to stress the plurality and data dependency of new social entities arising in this context. Rather than universalizing, harmonizing, and homogenizing these pluralities, it is necessary to highlight the conflicts embedded in this process as well as the new forms of sovereign power that are beginning to stake their claims on the future.

Of central importance here is the decay of truth as a key parameter of our cultural condition, evidenced by the rise of "fake news" and "alternative facts" as part of a fast-spreading post-truth culture. This development has enormous implications for our sense of a shared reality and our ability to communicate across social and cultural divides. Most recently, we have been confronted by a number of events that make it almost mandatory to address the profound sense of ambiguity, if not anxiety, about contemporary publics that is emerging today: if we think of the growing strength of populist movements across the globe since the 2007–2008 financial crisis – for instance, if we think of Trump's ascent to the US presidency and the mistruths swirling around Britain's Brexit vote or if we think of the selection of "post-truth" as 2016's international word of the year - all these instances and the debates they have provoked seem to suggest that the notion of the public has become less stable, less predictable, and less trustworthy than it once was. The bourgeois fear of the masses appears to have given way to an elitist fear of the public. Contemporary notions of the public have become entangled with a sense of manipulation that is seen as linked to an increasingly computational world and especially to unprecedented levels of data collection, analysis, and dissemination by private as well as governmental entities. The ubiquitous and often obscure character of these processes has raised substantial doubts regarding the relationship between our becoming embedded in data environments and the computational shaping of new public spheres.

What is missing in this situation are new analytical tools and forms of critical engagement capable of transgressing the suffocating binary of either demanding control of data or fearing how endemic it has become to the operation of today's public realms. The development of such means will require a broader conversation about how the acceleration of data is undermining conventional political paradigms of citizen rights and civic participation, about how we can face these new challenges, and about how new forms of publics might emerge beyond the techno-capitalist vision of an information society. The increasing sense of manipulation associated with today's data publics has already led to game-changing effects: we can see how the lingering feeling of distrust by the public toward their political institutions has turned into a distrust of the public and its opinions. This change has tremendous repercussions for the entire political system, for its foundation in the articulation of a public will. It seems that under the aegis of data capitalism, this *public* can no longer be trusted. What is at stake is no longer the political representation of the public but the legitimacy of claims being made through (rather than in the name of) it – which is in the end a fundamentally political question, but one that now seems to be escaping and overruling established political institutions in favor of new models of political and economic leadership.

In critically examining the conceptual potentialities and limits of emerging data publics, together with their empirical performance, the edited collection Data Publics seeks to provide a significant and original intervention into critical data studies and to advance understandings of the operation of digital life and the interconnections between contemporary social, cultural, and media theory. In this context, the fundamental aim of our authors is to provide crucial evidence for nothing less than a new understanding of civic participation within the algorithmic estate. The 12 chapters that comprise this collection boldly investigate the political implications of hybridized data environments, chart the emergence of data capitalism, experiment with new visual and cultural modes of transgressing the digital public realm, and speculate about new models of governance in the context of self-generating data publics. All these topics are approached from very different perspectives, but they together help to fashion a common framework for understanding emerging data publics through the lens of multiple scales that extend from the body to its locality, from urban habitats to global flows, and beyond to the cosmos.

Politics, environments, platforms

Section I (Politics) of this book offers insights into the political economy of data capitalism and the political potential of techno-logics that go beyond today's polarized views on data appropriation and data refusal. Contributing

to an examination of the growing interlinkages between the technological and governmental paradigms shaping contemporary life, Matthew Fuller's opening chapter, "In praise of plasticity", explores the notion of "plasticity", the capacity to reformat parameters of operation through processes of experimentation and learning. In recent years, the corresponding concept of perpetually integrating feedback loops into the coded grammar of machine systems has encroached on many areas of daily life through the principle of algorithmic optimization. Increasingly, new technologies are being employed to imprint plastic actions on the real in order to serve particular economic gains and political ends, as seen, for instance, in the spread of "flexible" on-demand work arrangements such as zero-hour contracts, which allow for an externalization of economic risk into the social. On the other hand, the idea of advancement through "plastic" structural adaptation has also become a highly influential leitmotiv in contrasting visions of socio-political transformation.

Echoing the "plastic" workings of this school of thinking itself, Fuller explores and traces its ontology across three different contexts: Gordon Pask's work on cybernetics, the field of machine learning, and the political disposition of anarchism. The latter, in Fuller's analysis, is understood as "a political approach that emphasizes flows of information, not merely as a means of equitable distribution and democratic access, but as a process also of transformation". From early anarchist voices onward, this ethics of action and struggle has been articulated as the necessity to continuously reappraise every aspect of political protocol. Yet in practical terms, the complex textures and granularities of everyday realities pose multiple difficulties for upholding a truly egalitarian political structure in progress, producing and engendered by constitutive publics.

How, for instance, can self-initiated operations maintain manageable work arrangements; how can they grow and expand without reproducing limiting and self-defeating structures? And perhaps most crucially, how can a form of organization be devised that ensures a capacity to truly recognize a problem in all its dimensions rather than simply dealing with representations or mediations of it. Interested in the affinities between the different fields of cybernetics, machine learning, and anarchism, Fuller identifies an emphasis on "under-specification" as one possible way of learning how to face these dilemmas. Drawing on Pask's work on un-preprogrammed technologies, as articulated, for instance, in his collaboration on Cedric Price and Joan Littlewood's Fun Palace project – a responsive architecture attuned to users' changing needs and desires - Fuller argues that under-specification opposes mere functionalism and points instead to maximally open structures and minimally predetermined forms. As problems continuously mutate, it becomes imperative to maintain the "widest degree of redundancy or requisite variety in decision-making". Such an orientation toward a conversational perspective, Fuller suggests, can open up ways of resisting instrumentalizing forms of plasticity, unleashing instead the creative energies of plastic becomings as they impact and reflect on both processes of individuation and collective expression.

Luciana Parisi and Ezekiel Dixon-Román's chapter, "Data capitalism, sociogenic prediction, and recursive indeterminacies", resonates with Fuller's interest in machine learning. Interrogating the naturalizing effects of a data-centric worldview championing the predictive intelligence of machines, Parisi and Dixon-Román direct their inquiry toward the radical transformations inflicted by data capitalism. At the core of these attempts to self-pose capital as ontology, they detect "a new mode of machinic production that preserves within itself the future value of data". Yet this shift from data to algorithmic modeling not only heralds a new computational sovereignty, but also serves to reaffirm a heuristic regeneration of power, thus perpetuating regimes of sociogenic coding and racialization of the world.

In their quest for potential openings to challenge data capitalism's epistemological project, Parisi and Dixon-Román delve deeply into the modalities of recursive thinking by machines. By way of suggesting that automation can include both contingency and chance, they raise the question of whether "automated systems can be taken to act against the anthropomorphic biases of modeling".

Is there scope for "including wider margins of indeterminacy and ultimately overturning sociogenic programming all together"? Or have learning systems of intelligence already absorbed within themselves the horizon of the unthought and unknown, essentially eradicating all possibilities to reach beyond the planet's colonization by Western man? Parisi and Dixon-Román warn against a fatalistic viewpoint of an all-overriding techno-determinism. Instead, they argue for a more nuanced approach that at once engages the transformative scope of incomputables in redefining what a machine can do whilst also addressing the implicatedness of automated systems in the ontopower of data capital.

Ignacio Valero shares this dual objective of, on the one hand, insisting on a thorough analysis of the evolving nature of contemporary capitalism and, on the other, pushing for ways to make alternatives thinkable. Driven by this spirit of not wanting to concede to established boundaries, Valero's chapter, "Emotariat accelerationism and the republic of data", embarks on a highly sensitive exploration of what it is that makes us participate in the spreading of new forms of capitalist exploitation and destruction. To this end, the chapter opens with a crucial examination of the mobilizing effect of desire, both as the "raw material" targeted by today's rapidly proliferating passion economy and as an entry point for resurrecting the virtues of communality and solidarity. With regard to the former, further elaborating his concept of the "emotariat", Valero alerts us to how at the heart of contemporary wealth accumulation lies the ability to control and exploit the labor of emotional investment. Data technologies are key to this, offering boundless flexibility for the willful manipulation of the supply and demand of libidinal energies. As Valero reminds us, quoting Srnicek, today's "dividualized algorithms act as libidinal enclosure platforms. Their erotic, libidinal repression lights up a torch which like climate-induced wildfires threatens to engulf the entire body organic and body politic of the planet".

Whilst explicitly addressing the widening repertoire of instruments being deployed to enslave contemporary subjectivities, Valero is equally eager to tease out the more fundamental tensions underlying people's conceptions of their relation to the cosmos, its creation, and their place within it. Only when recognizing the mythological engine at work in liberal, capitalist modernity can we truly engage with our complex and contradictory libidinal involvement in it and channel analysis into a vision of change. Laying out potential pathways toward imaging alternative futures, Valero, too, calls upon the incomputable and unaccountable. Rallying a roster of critical voices, he makes clear that new technologies can reach well beyond their appropriation as tools of domination and are imbued with a decisive democratic potential to become socially innovative and politically disruptive. Indeed, looking at the plethora of movements emerging from outside Western epicenters, Valero encourages us to acknowledge, cherish, and learn from other desires already vigorously emergent that are informing both alternative concepts and practical realities, all the while steadily enriching a glocalized *EcoDomic* aesthetic(s) of the common(s).

Section II of this book (Environments) extends this debate by anchoring the often intangible worlds of data in questions of visual, spatial, and geographical organization. It connects these discussions with a closer analysis of emergent ways of life and the environments that sustain them. The widespread invisibility of data and associated technologies plays a significant role in casting their impact as benign and as merely another logical step in the gradual science-led improvement of our daily lives, which we have become accustomed to over a century marked by the advance of the mass consumergoods market. A case in point is the growing number of satellites orbiting in space, which, being so far out of sight, are hardly ever considered to be part of everyday life. As Stephen Graham's chapter, "Unearthly domain: the enigmatic data publics of satellites", reminds us, this is rather paradoxical, given that so much of "valuable" human activity on Earth is now measured, guided, and implemented via satellite-controlled GPS data. What this blindness obscures is the steady erasure of established conventions. Far beyond an increased convenience in the execution of daily routines, the spheres opened up by novel global navigation and communication systems are causing fundamental shifts in economic, social, political, and spatial paradigms, triggering seismic ruptures in humans' understanding and organization of life on Earth, changes we have yet to become conscious of.

A key transformation in this context, and one that is taking place under the radar, as it were, relates to the way we locate ourselves as human beings in space. This, in turn, is heavily dependent on our perception of space itself, of the manifestation of space along a particular perspective and sets of clear and stable coordinates. Stephen Graham identifies a number of realignments at work in contemporary visual cultures, which are being reinforced by what is assumed to be the infinite technological capacity of new means of reconnaissance such as drones and satellites and which deserve our increased attention. One such realignment has to do with recalibrating the weight of horizontal and vertical vectors of space when it comes to determining the possession of power, a shift of focus from the land-bound parameters of nation-states to the time-dependent reach of orbital infrastructures, many of them linked to the operations of different sections of the global military-industrial complex. When these activities are brought into the realm of public visibility, the pretense of a god-like vision from above afforded by this vast data-scape of sensing and imaging is called upon to turn every occurrence on Earth into a targetable object of satellite-led intervention. Through a detailed study of the proliferating grip of this vertical view on our lives today, from the dawning weaponization of inner space to its commodification through Google Earth, Graham not only lays bare the military bias of this imperial gaze from above but also, importantly, decodes the inherent constructedness of data-based omniscience.

Descending from Graham's analysis of "above", Jennifer Gabrys's chapter, "Sensing air and creaturing data", grounds its analysis on a critical study of the role data plays in our knowledge and experience of the Earth's atmosphere. While Graham's chapter focuses on new alliances appropriating mastery of the vertical, which affect how we as humans locate ourselves in space, Gabrys reorients this sense of the vertical to explore how data technologies are transforming the logics of relational scales but, in her case, the relationship between individual data collection and spaces of data interpretation. She explores the disjunctive relation between the individual body experiencing data and the spaces where this data gets stored, processed, and shaped into communicable bits, whether as news stories, scientific reports, or data sets steering algorithmic operations in a wide range of contexts, from financial markets to on-demand services and social media platforms. As a consequence of this gap between data collection and data interpretation, a majority of data – although directly related to everyday experiences such as the environmental pollution of concrete locations, an example that provides the context for Gabrys's analysis - is rendered inactionable, not least for individual citizens. In response, an increasing number of initiatives have sprung up which seek to challenge this discrepancy between immediate experience and the availability of accountable information. So-called "citizen sensing" movements point the way to a strategy of shifting practices of data production and interpretation from the monopole sphere of scientific and policy experts to spaces with infinite numbers of participants. The crucial question here is whether this intervention can constitute more than merely the replacement of one group of stakeholders by another and whether, as a change of practice, it could herald the arrival of an entirely new quality with regard to the scope and meaning of data.

On the one hand, citizen sensing clearly expands the horizon of data recording. More than just a complementary add-on, citizen data has the capacity to change the makeup of data-scapes from within, shifting what is understood as center and periphery. On the other hand, rather than simply detecting what is already out there, Gabrys suggests, citizen sensing needs to be recognized as acts of creation that can alter the perception and experience of environments. Gabrys uses the term "creaturing data" to describe how citizens' engagement with computational-sensing technologies is bound up with the generation of new milieus, relations, entities, occasions, and interpretive registers of sensing. This notion of "creatured data" highlights how, beyond the accumulation of more or different data, citizen data can become a decisive factor in the creation of environments of relevance. By giving rise to new entities and perspectives, "creatured data" actualizes our world(s) precisely as a process of experience. Analyzing the implications of such practices of co-production in relation to concrete research experiments, Gabrys's chapter provides a crucial contribution to one of the main objectives of this volume: namely, to begin to comprehend how data is constituted and engendered through moments of encounter and what momentum such encounters can generate.

Benjamin Gerdes's chapter, "Offsite: data, migration, landscape, materiality", engages with the generative capacity of moments of encounter to aid our understanding of data constitution and the politics this constitution conveys and engenders. This chapter, experimental in its approach, interweaves paratactic research notes for a film essay about Gerdes's opportunity to tour two data centers in the Stockholm region of Sweden. Moving between narrative modes of research notes, video description, and acute analysis, Gerdes juxtaposes three recently developed phenomena in Sweden: the state-sponsored opening of several world-class data centers in rural parts of Northern Sweden, the recent restrictions to refugee resettlement and overall migration procedures, and the growth of informal recruitment of migrant labor in the berry-picking industry. He gradually unfolds, through juxtaposition, how these three phenomena link to and iterate from one another. Through his encounters with these concepts, Gerdes proposes questions of "selective migration" and the political mechanisms of Sweden's cherished concept of allemansrätten ("freedom to roam" or "right of public passage"). He considers which groups have priority within this freedom to roam, what kinds of exclusions exist at the heart of this "freedom", and who builds and controls the environments that are to be "roamed". He considers policies that restrict refugee resettlement alongside the placement of the entire country of Sweden on Airbnb, proposing that despite seeming paradoxical, they are instead two sides of the same coin, shaping how we understand the politics of access, environmental construction, and data relation. Openarmed policies toward companies like Facebook developing massive data centers in rural areas of Sweden and people treating rural areas of Sweden as their personal Airbnb bookings - rural areas that, in their remoteness, were once tactically opened to refugees – become monuments to a regime of oppressive, selective "open-ness". The style and structure of Gerdes's chapter embody the themes indicated by the situations he makes visible for intentionally multifaceted interpretation. Aiming to challenge a "site-by-site mode of inquiry" typical of academic approaches to studying data, borders, infrastructural privatization, and built environment, Gerdes instead "questions the contours" of each of these phenomena by describing them alongside one another, moving between scalar modes to indicate what these issues of data, migration, and built environment say about the disoriented scalar system in which we presently situate ourselves as subjects.

In his chapter, "Fracking sociality: real estate and the new urban architecture of the internet", Louis Moreno connects the question of how data production actively shapes environments with the key site of contemporary economic development - the city. Tracking the sometimes blurry architectural traces in the genesis of computational technologies, Moreno sets out to explore what urban systems the new global players of data capitalism like Google, Facebook, and WeWork are beginning to develop in order to implement particular kinds of ecologies. Described by their masterminds as "environments that . . . make ideas happen and go out into the world", the flip side of these supposedly socially embracing spaces catering holistically to our guest for a rich and fulfilled life is an ever more advanced furnishing of urban space with surveillance devices programmed to sense, track, and mine every move and behavior of a carefully chosen and monitored population. Moreno sees this new type of urban space as more than a mere representation of digital capitalism and seeks to identify and critique those "architectonic practices that bind the accumulation of capital in space to the communication of information in time (and vice versa)".

To this end, he juxtaposes a long-growing cultural unease about the dissolution of once familiar spatially marked orders, such as the distinction between private and public, with the need of capital to build environments through and in which its operations can become naturalized. The rise of real estate to both a hyper-performing asset class and determinant urban planning tool exemplifies this alignment of everyday life with the logics of financial capital. At the heart of this transformation, Moreno argues, lies the task of optimizing and synchronizing the circulation of people, labor, information, capital, profit, and so forth, but in a way that renders much of this circulation opaque, camouflaging it with a veneer of altruistic aesthetics. What we are witnessing now, he argues, is the readjustment of these alignments to the new possibilities of capital accumulation afforded by data technologies that can direct, filter, and absorb circulations in space in entirely new ways. With computational capacities now extending to the recognition and quantification of and predictions about not only material events but all sorts of immaterial aspects, such as social preferences, cultural tendencies, and individual and collective behaviors, it is no longer just the built environment as such but urban life in all its forms and expressions which gets traded 20

and fetishized on speculative auction markets. However, as Moreno reminds us, this is not a purely technologically determined and thus "already lost" process; rather, what these developments call for is a comprehensive critique of the (transformative) moral and aesthetic systems that underpin capitalist appropriation by design.

Section III of this book (Platforms) concludes this debate by locating it in a variety of empirical contexts and by exploring the current challenges of data publics through influential platforms in the social media economy today. Mörtenböck and Mooshammer, expanding on the opaque circulations of the city as described by Moreno, turn their attention to new structures of supposedly porous relationalities within the city. The claim to break down debilitating hierarchies of outmoded forms of social and economic organization by allowing for unhindered, direct, relational interaction is frequently promoted as a primary selling point of the rapidly expanding breed of platform-based enterprises. Following the idealized model of "disruptive technologies", which prioritizes the simple fact of change itself over longterm values, many of these investor-backed so-called start-ups are targeting key components of urban life – from transport infrastructures to the organization of work and from the realignment of government-citizen relations to numerous services that have to do with taking care of oneself, such as housing, food, and leisure.

Mörtenböck and Mooshammer embed their analysis of this kind of "platform urbanism" in a wider genealogy of the role of urban development within the evolution of capitalism. They point out how over the last decades speculation with the building blocks of urban societies has been surpassed by forms of city-making purposely designed for speculative markets, of which platform urbanism can be seen as one of the latest incarnations. Under these conditions, which are deeply entrenched in the competitive mind-sets of financial markets, urban spaces, and the social practices unfolding within and through them, are perceived not just as asset classes but as variables within a larger set of parameters that need to be managed in such a way as to achieve whatever is deemed "best performance" in the eyes of investors. Reflecting on the urban typologies employed in the recent wave of largescale campuses erected by the ruling tech giants in California's Silicon Valley, Mörtenböck and Mooshammer detect two significant trends through which platform mentalities imprint themselves on urban space: first, a collapse of scale, in which the imaginary of personal happiness is interpolated with a technological, corporate, and governmental restructuring of urban environments of vast dimensions, and second, orchestrated moves to cement these transformations through the modeling of all-encompassing worlds, in which one company takes care of each and every need. Any visions challenging these monopole cities, Mörtenböck and Mooshammer argue, would have to start with reconsidering the structural logics of platforms. If platforms' key assets are the provision and control of access, then what is at stake is the question of how to organize access to access.

In the following chapter, "The aesthetic society: or how I edit my Instagram", Lev Manovich explores how these platform technologies have had a profound impact on the emergence of global visual cultures. Due to their ability to level certain restrictions of space and time, these devices of connectivity have opened the door to a collectively produced visual iconography of hitherto unknown dimensions. In this context, Manovich is concerned with the specific case of Instagram, the way it has given rise to a particular form of popular photography, which he calls Instagramism, and how this mode of cultural expression sits within a hegemonic genealogy of social norms, political orders, and artistic styles. In Manovich's interrogation of the democratic potential of such a mass movement, the key questions become: what visions of the world are offered by this new phenomenon of Instagramism, and how can such globally shared modalities of production be conceptualized vis-a-vis widely attested monopole strategies of highly capitalized tech corporations? With regard to the latter, Manovich proposes the terms aesthetic society and aesthetic worker in order to grasp the coalescence of social and economic values operative in the promotion of 21st century lifestyle subjectivities.

At the heart of Instagramism, Manovich locates a global digital youth class traversing ever-changing landscapes of structured cultures, wherein different aesthetics are often characterized in opposition to each other, employed as a means of expressing tribal aspirations and belonging. The purpose of designed Instagram photos, then, is to act as evidence of "immersion in life": a life that is meaningful and satisfying. Hence, a demonstration of "being in the scene" has become key to the composition of Instagram aesthetics. Manovich identifies a range of different strata, which overlap and blur in these demonstrations of real life, ranging from a preference for mood and atmosphere over concrete events to an emphasis on improvisation and strategies of defamiliarization. What most of them have in common is a break with long-standing conventions of binary orders such as natural/artificial, high/low culture, etc. In doing so, Instagramism follows in the footsteps of many other new digitally enabled, disruptive spheres, happily ignoring long-standing rules or obligations associated with context while unashamedly raiding its environments for whatever might be of interest at the moment. This attitude fuels an obsession with capturing the here and now that needs to be constantly replenished. Echoing the concern of many other authors in this volume about time as the increasingly all-determining factor for "survival" in today's rapidly evolving data-scapes, Manovich alerts us to how in contemporary visual aesthetics, too, as exemplified by Instagram feeds, content (i.e., the substance and meaning of singular events) is increasingly losing traction compared to the relevance of the sequence (i.e., how things occur in relation to an endless mass of other things). Grappling with the implications of this disjuncture matters if we truly want to understand how contemporary realities, in which not just millions of fashion-hungry young people, as on Instagram, but everybody participates, are shaped simultaneously by the techno-logics of new communicative infrastructures and the ever evolving ways in which they are used.

Ravi Sundaram's concluding chapter, "Publics or post-publics? Contemporary expression after the mobile phone", acts as a pertinent reminder of the global impact of and seismic shift of power tectonics engendered/ provoked by the rapid spread of mobile media devices. As capacities to generate, share, and circulate audio-visual captures and representations of public events expand from the monopole of so-called legitimate bodies (government agencies, established news outlets, etc.) to unlimited numbers of individuals who happen to be at a certain place at a particular time, long-standing orders of authority over the distribution of information, the interpretation of right and wrong, and the certification of truth are also called into question. Crucially, Sundaram focuses his analysis of these transformative processes on the impulses driving individuals' participation in the creation of such new strata of collective engagement. As he points out, throughout modernity, concepts of collective formation have often been torn between opposing assertions of violent, uncontrollable, inherently illogical aggregations of anarchic masses on the one hand and a lulled passive public kept apathetic in their private spaces by manipulative consumer media on the other. Yet today, against the backdrop of increasingly sensor-equipped environments geared toward feeding calculative infrastructures and operations, these concepts fail to grasp the complex interaction and simultaneous segregation of content and process/performance at work in contemporary media-oriented theaters of power.

As Sundaram highlights, what we are confronted with today is a situation of blurred boundaries and hierarchies, in which public affect is no longer manageable through top-down governance but has turned into a fiercely contested marketplace of atmospheric media, which in turn is heavily reliant on generating and maintaining forms of multifaceted attachment both through infrastructural means and socio-aesthetic enmeshments. Being particularly concerned with the post-colonial context of countries like India, Sundaram examines recent tendencies to "informalize" modes of governance by way of appropriating third-party media channels for the dissemination of strategically and tactically placed messages. This interaction between structures of power and social media platforms controlled by global corporations, Sundaram stresses, does not just illustrate another step in the advancement of neoliberalism but heralds a significant paradigm shift in the relationship between representation and order. In an environment in which the value of experience is given precedence over everything else, the search for constant updates, a default setting of continuous circulation in which the present is rendered as a series of disruptive events, begins to override everything else. In this state of indeterminacy, spheres of intimate and public life become blurred, concepts of truth are suspended, and the closure of representation is deferred indefinitely. Similarly, collective attachment is no longer structured around pre-constituted entities but unfolds through splintered moments of experience. These developments pose fundamental challenges when it comes to the conceptualization of notions of

public in our era of personalized mobile media: when private messaging groups become the primary source of information "every action is now potentially public", giving rise to new forms of "post-public" agglomerations. However, as Sundaram, referencing Miriam Hansen, suggests, this crisis condition of new media might also trigger groundbreaking ideas for a new "political ecology of the senses".

Notes

- 1 In a Foucauldian sense, the term "techniques of governmentality" refers to processes through which populations shape their own conduct according to particular aims and expectations. More often than not, these processes are not directly initiated by governments but relayed within the guise of intermediaries and institutions.
- 2 For further reading, see Lilly Irani's Chasing Innovation: Making Entrepreneurial Citizens in Modern India (2019).
- 3 Reprinted in Dalton, Primitive Archaic and Modern Economies (1968).
- 4 Aiming to make Europe fit for the digital age, the European Commission's official website describes the regulation as "an essential step to strengthen individuals' fundamental rights in the digital age and facilitate business by clarifying rules for companies and public bodies in the digital single market". European Commission, "Data Protection in the EU".
- 5 "The proper functioning of the internal market requires that the free movement of personal data within the Union is not restricted or prohibited for reasons connected with the protection of natural persons with regard to the processing of personal data". REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIA-MENT AND OF THE COUNCIL, L 119/1.
- 6 Ibid, article (2), L 119/1.
- 7 Ibid, article (7), L 119/2.
- 8 Evidenced, for instance, in the GDPR's stipulation that "flows of personal data . . . are necessary for the expansion of international trade". Ibid, article (101), L 119/19.
- 9 In his contribution to modern liberal democratic theory C. B. Macpherson introduced the term "possessive individualism" to point out how in a society ruled by the market, social bonds are rendered as a network of exchange between proprietors.
- 10 Other data scholars have offered critical studies of data, illuminating its "constructedness" (Drucker), its materiality (Dourish, Blanchette), and its site specificity (Loukissas). See Graphesis (Drucker, 2014), The Stuff of Bits (Dourish, 2017), 'A Material History of Bits' (Blanchette, 2011), and All Data Are Local (Loukissas, 2019).

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