Chapter 9. Situating practices in datafication – from above and below

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The collection and analysis of massive amounts of data has become a significant feature of contemporary social life; what has been described as the 'datafication' of society (Mayer-Schönberger and Cukier 2013). These processes are part of a significant shift in governance, in which big data analysis is used to predict, preempt, explain and respond to a range of social issues. Yet, we still struggle to account for the ways in which different actors make use of data, and how data is changing the ways actors understand and act in relation to social and political issues. Overwhelmingly, focus has been on data as a technical artifact, abstracted from social context, and analysed in relation to its functionalist design. This has meant that discussions on big data have often neglected the *social* dimension of datafication, instead confining it to a question of technology, and - with that - not fully engaged with the *politics* of data, instead presenting it as a neutral representation of social life. As Ruppert et al. (2015) contend, emphasis needs to be placed on the social significance of big data, both in terms of its social composition (a subject's data is a product of collective relations with other subjects and technologies) as well as in terms of its social effects. From this, we can begin to explore *data politics* as the performative power *of* or *in* data that includes a concern with how data is generative of new forms of power relations and politics at different and interconnected scales (Ruppert, Isin and Bigo 2017).

Drawing on research on uses of social media data in the policing of protests and activists in the UK, this chapter outlines how researching data-driven decision-making in relation to other social practices can provide crucial insights into the dynamics of datafication and highlight significant areas of tension and struggle. A practice approach invites us to ask 'what people are doing' in relation to resources (in this case data) in the contexts in which they act (Couldry 2012: 35). It therefore provides an opportunity to *situate* data practices in *relation* to other social practices that can illuminate a much-needed focus on dynamics of power and organisational context in analyzing datafication. A practice approach thus allows us to overcome a

prominent *data centrism* in studies of big data. By focusing on practices – both at the level of those creating and/or acting on data profiles as well as the level of those subjected to such data profiles – we can begin to uncover key questions about the values and interests that pertain to data in different contexts, how citizens are reconfigured within these constellations and how, they in turn, might engage with such configurations. In this regard, a situated approach to datafication speaks to the long-standing concerns of citizen media research and practice by (re)asserting the political dimension of datafication, beyond techno-centric accounts, that, in turn, points to both the (re)construction of citizens in data systems and the emerging opportunities for citizen intervention and resistance.

A practice approach to datafication

According to Mayer-Schönberger and Cukier (2013: 8), datafication refers to 'a modern technological trend turning many aspects of our life into computerized data.' At its core, they argue, is the pursuit of predictions based on the premise that it is possible to infer probabilities by feeding systems lots of data. 'Big data is about *what*, not *why.* We don't always need to know the cause of a phenomenon; rather, we can let data speak for itself.' (Mayer-Schönberger and Cukier 2013: 14). Whilst the advancement of this 'technological trend' has at times been hailed as the onslaught of a 'new industrial revolution' (Hellerstein 2008), many have also argued that what we are witnessing with the increasing mass collection and analysis of data across our social life is the emergence of a *paradigm* (Van Dijck 2014). Grounded in what Van Dijck refers to as 'dataism', datafication is rooted in assumptions about not just (objective) data that flows through neutral technological channels, but also that there is 'a self-evident relationship between data and people, subsequently interpreting aggregated data to predict individual behaviour' (Van Dijck 2014: 199). In other words, the drive towards datafication is rooted in a belief in the capacity of data to represent social life, sometimes better or more objectively than pre-digital (human) interpretations. It is on this premise that uncertainties about the future can be rendered apparent, what McQuillan (2017) compares to the neo-platonism that informed early modern science in the work of Copernicus and Galileo: 'That is, it

resonates with a belief in a hidden mathematical order that is ontologically superior to the one available to our everyday senses.' (McQuillan 2017: 2)

The trend is to reduce social identities, mobilities, and environments to mere data that can be managed and sorted as abstractions without a clear understanding of the embodied power relations and social effects produced by those activities (Monahan 2008, Leistert 2013). This datafication paradigm therefore relies on particular epistemological and ontological assumptions, underpinned by its own specific set of values and logics – and politics. Big data refers not only to very large data sets and the tools used to manipulate and anlyse them, but also to a 'computational turn' in thought and research (Burkholder 1992, boyd and Crawford 2012) that reinforces some lines of reasoning and argumentation over others, with significant social and political consequences (Redden 2015). However, in order to examine these in full, we need to situate this paradigm within the specific contexts where it is being played out. As Christin (2017) argues, to date, the discussion has largely focused on the instruments themselves – how algorithms are constructed and how their models operate. We are therefore familiar with *general* (largely technical) critiques of big data that highlight issues such as lack of transparency, bias and discrimination, and emerging social stratifications between data profilers and data subjects (e.g. boyd and Crawford 2012, Pasquale 2015, Barocas and Selbst 2016). We know less about the practices, representations, and imaginaries of the people who rely on data systems in their work and lives (Christin 2017). By advancing a practice approach to datafication we can move from a general critique of societal implications, to a more particular and *process*-focused analysis that 'decentres' (Couldry 2004: 117) data and algorithms. In Couldry's terms when advancing a theory of media practice, the decentering of the 'text' (algorithm) provides a way to sidestep insoluble problems over how to prove 'effects' through either a focus on the text itself or the institutional structures that produce that text, and makes us instead consider the *uses* to which data systems are put in social life. As such, it places the study of data firmly within a broader sociology of action and knowledge.

Such an approach re-situates the significance of materiality at the centre of social research, in conjunction with meanings, assumptions and representations (Stephansen and Treré, forthcoming). Moreover, it provides an avenue to combine questions of agency together with questions of political economy as the focus is on the *organizing* properties of distinct practices (Schatzki 2001) that incorporate a significant degree of *intentionality* (Couldry 2012). In line with Bourdieu, agent and social world form a relation between two dimensions of the social – a 'habitus' – rather than two separate sorts of being (Calhoun 1995: 144). Bourdieu's notion of practices attempts to delineate the practical logic of social activity in any given field as central to the constitution of power (Bourdieu 1977, 1990). That is, Bourdieu seeks to extrapolate the structural constraints and the discursive meanings that dialectically constitute the 'immanent laws' (Bourdieu 1990: 59) inscribed in the practices of a given field.

When drawing on insights from a theory of media practice, a practice approach to datafication, therefore, would go beyond a focus on the data and algorithms themselves (the text) or the institutions that produce data systems (political economy) and instead combine concerns with both these aspects to look at the uses to which data systems are put within a given context. In doing so, it seeks to understand underlying social mechanisms within that context (e.g. organizational constraints, allocation of resources, ideology) in relation to tendencies amongst agents working and living within such context (e.g. imaginaries, discretion, resistance). The aim of such an approach is not only to emphasise the social dimensions of data as a response to the predominantly technical and functionalist understandings that have prevailed in many discussions so far (Ruppert et al. 2015), but also to *situate* data in a way that can illuminate its *relation* to dominant agendas and potentials for resistance. It invites us to reject datafication as a 'natural' or 'inevitable' development, and instead see it as a continuously constructed project, shaped by multiple, converging and conflicting forces, across data life-cycles. In this, it leads us to points of contention and intervention, including by citizens, practitioners and data subjects in general. Thus, the concern is with the active *politicization* of data systems as they appear as sites of struggle in social life.

The case of predictive policing

As a way to demonstrate the value of a practice approach to datafication, I now turn to the specific case of 'predictive policing' to illustrate how data systems are situated in relation to other social practices. The focus here is particularly on policing practices, with the aim to identify how citizens 'fit' in data-driven policing, both as subjects and as potential interveners or participants; a perspective on the citizen-data nexus we might think of as 'researching up' (Feigenbaum 2016). I will therefore start with outlining the logic of 'predictive policing' as a data-driven practice, before going on to explore the way this practice is situated within specific institutional contexts, and then finally discuss what implications this has for citizens and citizen practices.

The advent of predictive policing is indicative of how promises of data-driven predictions have taken root, and how data systems are proliferating, along with their values and logics, across sectors and government agencies. Early versions were developed in the 1990s in the United States, with programmes such as 'PredPol' designed to deliver predictions about 'crime hotspots' to police on the street in real time based on amassing data from various surveillance networks relating to events, place, environmental factors and information about individuals (Mohler et al. 2011, Howard 2012, Koehn 2012, Badger 2012). Following 9/11 and attacks in Madrid in 2004 and London in 2005, the use of big data for predictive policing increased precipitously. In recent years, it has become a decisively prominent avenue for British police (Dencik, Hintz and Carey 2017). For this chapter, I draw on findings from a research project I worked on called 'Managing Threats: Uses of social media for policing domestic extremism and disorder in the UK'[1] that explored how social media data, in particular, is used to inform preemptive strategies in relation to the policing of protests and demonstrations (in the UK, this falls under the remit of the

[1] This project was funded by the Media Democracy Fund, Ford Foundation and Open Society Foundations. The full project report can be accessed here: http://www.dcssproject.net/files/2015/12/Managing-Threats-Project-Report.pdf

National Domestic Extremism and Disorder Intelligence Unit [NDEDIU]). For this we interviewed leading police officers in the UK working in the area of digital intelligence and engagement, and examined uses of 'socmint' (social media intelligence) in the form of big data in the lead-up and during protests.

Predictive policing is a significant example of the ways in which datafication is permeating the contours of established understandings of citizenship and the nature of state-citizen relations (Hintz, Dencik and Wahl-Jorgensen 2018). Partly, as Lyon (2015) suggests, data-driven decision-making is a continuation of the bureaucratization that has been long-standing in public administration. But used in conjunction with an onus on anticipation, it also seeks to place more weight on managing consequences rather than seeking to understand underlying causes of social ills – as noted above, the focus is on the 'what' and not the 'why'. Indeed, for Andrejevic (2017) the shift that has become emblematic with predictive policing is one from prevention to preemption, a shift that also undermines how we have previously understood the democratic process. With preemption we a confronted with the 'rapid shrinking of the space and time for deliberation – a diminution heralded by automated forms of sorting, decision making, and response that promise (or threaten) eventually to subtract the human element altogether.' (Andrejevic 2017: 879) Insofar as politics is a site of both struggle and deliberation, the logic of data-based preemption comes to appear as decidedly 'postpolitical' (Andrejevic 2017).

Yet when situated in the context of existing institutional and organizational practices, it becomes apparent how data systems in policing are also continuously negotiated, repurposed, advanced and resisted in the face of alternative logics, (re)humanization, resource-constraints, and wider political culture. In British 'domestic extremism and disorder' policing, social media became a core focus following the 'riots' that took place in a number of English cities (most notably London) in the summer of 2011. Reports have suggested that since 2012 a dedicated team working specifically with social media intelligence has been established (Wright 2013). Police collect social media data leading up to any event, such as a protest or

demonstration, and monitor social media activity during the event. Social media data informs therefore both preemptive as well as real-time police strategies. However, our research indicated that the organizational culture of policing is not one that is immediately receptive to the integration of digital technologies and one interviewee expressed that the use of social media data has been a 'learning curve' amongst a workforce that has not 'grown up' with social media. Yet the further integration of these technological systems has been reasoned partly as a way to practice intelligence-gathering in a way that is seen as having more 'legitimacy' amongst the public than other intelligence-gathering tactics (e.g. infiltration and undercover policing, which has received a lot of criticism) as well as a more efficient way of garnering 'situation awareness' for any protest or event. At the same time, there is recognition amongst some of the police we spoke with that the nature of the data that is collected blurs the lines between what is public and what is private information, creating some hesitations as to how it is or should be used specifically for policing.

Beyond these broader questions of workforce and political culture, data practices are anchored in policing by other social practices that are manifest in organizational dynamics and institutional structures. By taking a practice approach we can begin to distinguish (crudely) how data practices are situated within different contexts and get a better grip on the distinctive types of *social process* enacted *through* data-related practices (Couldry 2012: 44). This speaks to Swidler's (2001) suggestion to consider the *hierarchy* of practices in a given context, and how some practices organize, anchor, or constrain others. Data systems themselves can be thought to enact 'constitutive rules' that acquire power 'to structure related discourses and patterns of activity because they implicitly define the basic entities or agents in the relevant domain of social action.' (Swidler 2001: 95) As Couldry (2004) has argued in relation to the media, we might think of media practices as having a *privileged* role in anchoring other types of practice because of the privileged circulation of media representations and images of the social world. We can extend this argument to big data as well. As noted above, datafication strives to order the social world in particular ways through the reduction of environments into data points for the

purposes of classification, categorization, sorting and profiling. Data practices might therefore be seen as part of a hierarchy between data practices and other sorts of practice as they have consequences for how other practices are defined and ordered (Couldry 2004).

Whilst considering such a hierarchy adds to the complexity of how data practices can be understood on a large scale, we can also identify specific practices internal to a given institutional context that are central or more determinative than others for understanding how data systems are situated. Here I briefly mention two forms of anchoring practices from my case study on predictive policing as a way of illustration: integration and out-sourcing. Firstly, in the institutional structure of NDEDIU, big data analysis sits alongside other forms of intelligence-gathering practices. In what is described as an 'all source hub', big data is integrated into police strategies together with human intelligence and existing databases; a context police described as a form of 'cross-checking' of big data. This is significant as it suggests that protests and actions are never *solely* understood through data systems, but that social media data is, in the words of a chief police officer, 'just one tool in the box of many.' Secondly, the systems that are implemented for data analytics in policing are not developed in-house. Rather, the design, development and training of software used for protest policing come predominantly, if not exclusively, from private companies. That means that the software police rely on for data analysis is developed externally, either in the form of 'off-the-shelf' tools developed by different companies that police then use or in the form of procuring specific systems through contracts with private companies. There is some scope for police to make suggestions for changes and amendments to these systems to better suit their needs, but there is no active involvement in the design or development of the actual software. Developers or private 'accredited training companies' train police in using the software, as well as in how to use social media data more generally. Therefore, the police do not necessarily have any knowledge or understanding of the algorithms they employ for collecting and analyzing social media data. As one member of police put it, police only know that they are 'looking for A if it's associated with B and also has C in it (…) the actual algorithm [that] sits behind it [is] beyond us.' As many of the

already-available tools police employ are commercially developed, they are overwhelmingly marketing-driven, repurposed for policing.

Both the emphasis on integration and the out-sourcing of data systems to external (commercial) actors are significant in understanding the social processes of predictive policing and how citizenship is (re)constructed within this mode of governance. We see this in the different (sub-) data practices that all form part of the practice of data-driven policing. In our research we identified five prominent set of practices in police uses of social media data: i) identification of 'threat words' with a view to 'filter the noise' and focus on particular (potential) activities; ii) risk assessment and resourcing outlining who ('risk' individuals or groups) and how many people are likely to attend an event; iii) identification of organisers and 'influencers'; iv) sentimental analysis to gauge the 'mood' of people, particularly in relation to feelings about the police; and v) location analysis of potential crowds through geo-location data.

Whilst these (sub-) data practices are intended to aid what police refer to as 'situation awareness' for any protest or event, they also indicate a significant reliance on marketing-driven discourses and non-technical information and knowledge. The outsourcing of data systems to commercial actors, either through procurement or off-the-shelf tools, becomes manifest in the focus on marketing-driven categories such as 'influencers' and positive or negative 'sentiment', which have migrated into policing and by extension into the configuration of the 'threatening', 'bad' or 'criminal' citizen. Furthermore, the identification of keywords and threat words or 'risky' individuals and groups rely significantly on pre-existing or external knowledge gathered from sources outside data analytics. This illustrates a continued dependence on institutional memory and non-data narratives to inform and attribute meaning to data practices and the configuration of citizens as they become visible through data points. Indeed, the assertion of such knowledge is translated into a privileging of professionalism that occasionally spills over into a level of skepticism towards data-driven policing. In our research, this was in some cases based on concerns with the technology itself not being developed enough yet

(e.g. for geo-location data to detect crowds and for language detection to inform sentiment analysis), whilst in other cases it was rooted in a lack of experience or intuition in data systems that is otherwise perceived as being key to the professionalism of police officers. That is, an assessment of genuine risk requires knowledge and expertise that cannot be learnt by computers.

Outlining and distinguishing these (sub) data practices in data-driven policing therefore suggests a complex interaction between what we might think of as discretion and quantification. On the one hand, the emphasis on integration in uses of data analytics in combination with a prevalent perception of professionalization significantly shapes any interpretation of results and suggests an important space for human-centered agency. At the same time, data analysis introduces particular forms of knowledge that shifts the terrain for what might be interpreted as 'risk' based on the productions of categories and networks, driven by 'measurable' activity and communication. In this way, therefore, understanding the *practice* of predictive policing entails a necessary emphasis on *negotiation* with regards to the *relation* of data practices to other social practices. Such negotiation points to a political dimension in data practices in which data systems not only prefigure but are also *embedded* within a set of interests and agendas that shape their uses and significance in policing.

Situating data practices in context

The research on uses of social media data in predictive policing highlights the importance of moving beyond a *data-centric* analysis of how the advance of datafication is shifting the governance of citizens. It is certainly the case that big data and the perceptions around the 'epistemic capabilities of algorithms' (Aradou and Blanke 2015: 6) that underpins the datafication paradigm, is premised on particular logics that have significant implications for citizenship in and of themselves. The representationalism that is assumed in the relationship between data and people allows for a version of citizenship that is rooted in a 'digital doppelgänger logic' in search of our data double (Harcourt 2015). This suggests a mode of governance that relies on decision-making informed by 'measurable-type' categories (Cheney-Lippold

2017) about what people *like* us *tend* to do. These predictions seek to bypass any intentionality in the constitution of both the data profiler and the data subject. That is, citizenship becomes an assertion of quantified calculations based on a series of data points. What this means is not that citizens are governed according to new risks necessarily, but rather, as Amoore (2013) argues, that the calculus of risk is new. She goes on to argue that we see a shift in practices of authorization that enable software engineering (and other agents of data science) to flourish as expert knowledges, to act as though they were 'sovereign'. The advent of predictive policing is emblematic of this shift.

Yet at the same time, our research also suggests that a significant power dynamic plays out in the assertion of technical authority in relation to the professionalism of the police. This power dynamic is shaped by a combination of structural constraints and discursive meanings within the field of policing. Importantly, as Couldry (2012: 37) points out, a key question that emerges with a practice approach is how people's media (or data)-related practice is, in turn, related to their wider agency. In this context, we need to consider how the organizing properties of distinct policing practices stand in both tension and alignment with the datafication paradigm. Whilst in some instances the spaces for discretion, interpretation, and cross-checking of data might lead to hesitation towards or rejection of algorithmic decision-making, in other cases algorithms provide an avenue for extending institutional logics and desire to expand intelligence-gathering for preemptive strategies.

In her ethnographic study of uses of algorithms in the fields of criminal justice and journalism, Christin (2017) similarly found instances where the vision 'from top' in implementing data systems is 'decoupled' from practices 'on the ground'. She contends that the 'algorithmic imaginary' meaning 'ways of thinking about what algorithms are, what they should be and how they function' (Bucher 2016) differs within fields, depending on questions of profit concerns (and, we might add, the stability of resources within the organization more broadly), level of professionalization, and the immersion in technological innovation historically in that field (Christin 2017). As discussed above, some of these questions are also pertinent

to the field of policing. Thus, the significance of data systems in policing cannot be understood purely through the nature of the data systems themselves, but only in relation to their situated context.

Approaching datafication in this way is significant in several respects. By moving beyond an analysis of the algorithms and data sources we are confronted with a broader understanding of data politics. As Ruppert, Isin and Bigo (2017) have pointed out, the performative power *of* or *in* data is hugely significant in explaining the transformation of the social fabric that emerges with datafication. Similarly, Couldry and Hepp (2017) have stressed the altering social ontology that occurs in a context where what comes to pass for social knowledge is held not by persons but by automated processing. As they go on to argue, 'when governments' actions, *whatever* their democratic intent, become routinely dependent on processes of automated categorization, a dislocation is threatened between citizens' experience and the data trajectory on the basis of which they are judged.' (Couldry and Hepp 2017: 212) But the politics of data can also be found in the way these processes of automated categorization are situated in different contexts. That is, we have to consider the political dimension of data also in how data practices *relate* to other social practices, including people's wider agency. Here we have considered it in the practices of protest policing, where data systems are integrated in a way that both extends and transforms the governance of citizens. The nature of this integration is a *political* question, embedded in existing and emerging power relations.

In 'researching up' the focus in this chapter has so far been on the ways in which law enforcement and citizenship is (re)configured through emerging data practices and how 'risky' citizens are constructed through a combination of complex socio-technical systems, institutional structures and forms of discretion that creates a distinctly political abstraction of citizens into algorithmic processes (despite post-political promises/threats). This, in turn, introduces a significant question as to how this form of (data) politics comes to implicate citizen practices 'from below' and the potential for intervention and resistance. As noted above, despite the logic of representationalism between data and people that permeates the datafication

paradigm, automated categorization is threatened by a dislocation between citizens' lived experience and their perceived data double. The politics of data, in this sense, emerges in what we might think of as the 'distance' (Goriunova 2016) between a citizen and its constructed data subject, the human and the digital. The extent to which citizens are able to challenge, avoid or mediate their data double - that is, the *relation* between data practices and other social practices – becomes a key political question of our time. The aggregation of combined data produces correlations of group traits and in turn informs predictions about the individual, making tracing any data life-cycle, let alone identifying direct impact, very difficult. This is further convoluted by the state-corporate nature of many data systems and the fact that the algorithmic means by which profiling, sorting, categorizing, and scoring citizens are carried out are predominantly proprietary entities. Such power asymmetries suggest a dislocation that is fundamentally stifling to citizen agency and intervention.

At the same time, the 'distance' between a citizen and its data projection is also suggestive of a productive space where (new) forms of citizen practices may emerge. Whilst this often remains confined to those who have the resources or expertise and can be limited in the long-term, here we might think of forms of data activism (Milan and Van der Velden 2016) that seek to minimize citizen-generated data points such as using anonymisation tools or alternative platforms that make citizens less 'visible' to corporate and state actors. Or, alternatively, we can think of forms of activism that aims to obfuscate (Brunton and Nissenbaum 2015) the production of data doubles and actively undermine the logic of representationalism, such as mass solidarity 'check-ins' on social media in certain location as we saw in the case of the Standing Rock protest camp on Facebook. This action was presented as a direct response to knowledge that police used such location data to identify and arrest activists. We can also consider the subversion of dominant data profilers-data subjects relations as part of this productive space of intervention, such as citizens profiling police activity using similar data-driven practices (e.g. https://mappingpoliceviolence.org).

These are just a few examples of how we might consider how data-driven policing might interplay with citizen data practices, in both restrictive and productive ways. More broadly, however, situating datafication within a practice approach shifts the focus away from data as the entry point for citizen intervention and resistance. Whilst such data practices may form part of revealing the capacity for citizen agency, a practice approach points to the importance of understanding data practices in relation to other social practices and suggests that struggles – and interventions – also emerge in the negotiations that permeate different institutional contexts with regards to data. Indeed, it suggests a need to look to the interests and agendas in which data systems are embedded as the basis for any analysis of citizenship in relation to data-driven governance and the datafication paradigm in general. This is the crux of situating practices in datafication from both above and below and for getting to grips with data politics as it plays out across social life.

Conclusion – beyond data centrism

In situating practices in debates on datafication, we can begin to have a better understanding of the actual transformations that are emerging in the governance of citizens. Discussions on datafication have often been limited by focusing the analysis on the algorithms and collection of data in order to understand social shifts. There is no question that the 'computational turn' (Burkholder 1992) raises important political questions in itself, and that the current datafication paradigm is premised on a particular belief system with ideological ramifications. The reduction of social life to mere data that can be managed and sorted as abstractions is a trend embedded in particular epistemological and ontological assumptions that have profound implications for society. Yet the nature of these implications require us to look beyond data as our entry-point, and to focus, instead, on data practices in relation to other social practices. For example, by approaching pertinent issues such as the way data systems perpetuate or introduce social inequalities and forms of discrimination through the lens of algorithms and data systems, there is an implicit danger that we begin to understand social injustice as a technical matter – and, by extension, one that has a 'technical fix'. Instead, by 'decentring' data, and moving beyond data centrism in our investigation of how data relates to questions of social

justice, we are forced to actively politicize data processes and outline how they are situated in relation to interests, power relations, and particular agendas.

This chapter has illustrated the relevance of a practice approach by briefly outlining how data systems are integrated in protest policing in the UK. This case study highlights how the mass collection of social media data fits with an agenda to move from a 'reactive' to a more 'proactive' form of governance that places an onus on preemptive strategies, and that facilitates more extensive intelligence-gathering without necessarily jeopardizing perceived legitimacy. At the same time, uses of social media data are informed by external commercial logics that interact with a particular algorithmic imaginary rooted in a high level of professionalization, a historical hesitation towards technological innovation, and a considerable prevalence of other forms of knowledge and narratives. The advent of predictive policing is a significant development in shifting notions of citizenship, and these negotiations between different forces and actors play a pertinent part of this context. These negotiations are important not only for a more nuanced understanding of how citizens are governed through data systems, but a practice approach also raises crucial questions about the potentials for citizens to enact agency, mediation, and resistance in relation to such data systems through different points of intervention. As the datafication paradigm continues to manifest itself across our social life, this becomes a key question for our time.

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