



DATAJUSTICE  
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WORKING PAPER

# **A conceptual framework for approaching social justice in an age of datafication**

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## Abstract

The drive to turn vast amounts of activity and human behaviour into data points that can be tracked, collected and analysed has become a significant feature of contemporary social life; what has been described as the ‘datafication’ of society. With these developments we are confronted with a significant shift in governance and a fundamental transformation of state-corporate-citizen relations. Whilst this is often hailed as ‘revolutionary’ in its potential for enhanced efficiency, security and innovation, we have also seen an increasing concern with the societal implications of these developments. In particular, a growing body of research has pointed to the multiple ways in which datafication both introduces and entrenches key questions pertaining to a broader concern with social justice, such as issues of inequality, discrimination, and exclusion. In this blog post, we want to contribute to the discussion on how to approach the relationship between data and social justice and apply it to what we understand by data justice, as part of our DATAJUSTICE project. Drawing on key literature we have discussed in our on-going project-based reading group that started in February 2018, we begin by outlining some of the rationale for privileging social justice in our discussion of datafication. We then go on to outline some central ideas about justice and what this might mean for studying and advancing data justice as a research and practice agenda. Our central understanding of data justice is to take impacted communities and social groups as our starting point for exploring existing and potential injustices, including in the form of oppression and domination, and to situate data processes within historical and on-going struggles for justice claims. We intend for this to serve as the beginning of our discussion, rather than as a definitive interpretation, and welcome comments and suggestions as we develop our ideas further over the next few years.

## Why do we care about justice in the context of data?

Whilst initial debate on the mass collection and analysis of data has centred questions of privacy and the protection of personal data as core concerns, the transformations happening across government, business and civil society in an age of datafication require a wider framework for understanding what is at stake. There has been a host of research in recent years that has illustrated this from a number of different angles and here we want to place some of this research within a conceptual framework that draws from key literature on social justice that we have been reading together over the last few months. Whilst discussions on information technologies and justice have often been contained within Rawlsian understandings of justice (as pointed out by Hoffmann 2017), we instead, and in line with Cinnamon (2017), find value in Nancy Fraser’s (2008) theory of ‘abnormal justice’ as a useful entry-point into assessing how justice claims are challenged and disrupted by core processes associated with datafication. With ‘abnormal justice’, Fraser advances a theory of justice that shifts our attention away from the dominant discussion on how goods should be distributed in a just society, and instead towards the very conditions that

underpin how justice is understood, debated and advanced. Reflecting on the advent of a 'globalising world', Fraser contends that 'not only substantive questions, but also the grammar of justice itself, are up for grabs.' She goes on to outline this in terms of three different 'nodes' of abnormality: 1) the 'what' of justice (the ontology); 2) the 'who' of justice (the scope); and 3) the 'how' of justice (the procedure).

Using this as a framework, we can usefully begin to sketch how datafication intersects these different nodes of abnormality – how datafication, in other words, disrupts the very grammar of justice (noting, as does Fraser, that abnormality has tended to be the rule rather than the exception in worldly state of affairs). Disruption here is dual: both with regards to justice in general as well as the particularities of justice in relation to data. Just to illustrate this briefly, we can consider, for example, how the shift to automation in determining what counts as social knowledge disrupts the ontology of justice – the matter of justice, the substance with which it is concerned. As Couldry (2018) has argued, in a context of datafication the very terms upon which we come to reason about *values* are transforming as choice is automated and regulated by what Karen Yeung (2017) describes as the 'hypernudge'. With regards to thinking about data, here assertions of the very meaning of a 'good' that can be subject to fair (re)distribution (as in Rawlsian theories of justice) are put into question. For example, is it appropriate to understand data as a 'resource' (as is implicit in many of its comparisons to oil or currency), that can be subject to a concrete definition of data ownership? Whilst viewing data as something that 'belongs' to individuals facilitates a way to address some of the power asymmetries that are prevalent in how data overwhelmingly travels, this conception of data also risks ignoring the inherent social nature of how data is generated and is attributed meaning. Moreover, it is unable to account for the power relations generated in and of data (Ruppert et al. 2017) through optimisation, categorisation, sorting, profiling and predicting, making it significant for questions of justice far beyond data as a distributive good. How, then, can the "what" be defined clearly and effectively within a datafied society?

Similarly, in thinking about the 'who' of justice, Fraser outlines a dislocation between the loci of decision-making and the subject of justice in a given matter. The notion of a citizenry or a bounded polity as the appropriate scope of justice is disrupted in abnormal justice and the 'who' is up for grabs. In many ways, datafication entrenches this dislocation further. The growing power asymmetry between the (not necessarily clearly distinct) three "data classes" - those who create data, those who collect data, and those who analyze data (Manovich, 2012; Andrejevic, 2014) - blurs the location, accountability and actors of decision making, whilst simultaneously widening the relationship between the data subject (the rights holders) and processes of governance. In this, it speaks to Fraser's concern with diminishing the subjects' ability to make justice claims. Not only have transnational data systems called into question the notion of sovereignty as traditionally understood in relation to nation-states (as argued by Bratton [2016] amongst others) but the continued expansion of such systems create multiple 'data doubles' of a single self, making boundaries

of the “who” ever more complex. Many of the current institutional struggles surrounding the enforcement of data protection regulation, for example, centre on conflicting framings of justice disputes and their scope. It is not clear, in this datafied society, where, and of relevance to whom, data is located, travels and impacts.

Finally, to draw on Fraser’s third node of abnormality, datafication furthers disruption to any shared notion of the criteria or decision procedure by which disputes about the ‘what’ and ‘who’ should be resolved. At one level, we are confronted with this as a continuation of the shifting boundaries of sovereignty, moving from what Pasquale (2017) has described as territorial sovereignty to functional sovereignty in which technology companies increasingly take on governance functions previously associated with the state. Along with that, criteria for resolving disputes become obscured and fractured. How should errors or bias in data-driven governance be resolved, for example? What is the avenue to uphold justice claims relating to infringements of rights in a datafied society? This uncertainty about the ‘how’ of justice has become particularly pertinent in debates on the extent to which disputes pertaining to data can be resolved with technological measures, such as suggestions of using computational criteria for ‘fairness’ as an appropriate authority. Others have questioned the relevance of traditional institutional avenues, such as governments or courts, to adequately uphold justice claims in a context where the process of data-driven decision-making is obscured and sometimes unknown, even to those who design or use such technologies. Insofar as social problems are posited to have either technological or legal solutions, the ‘how’ of justice in a context of datafication is very much up for grabs.

These are just some suggestions for how we can think about the ways the advent of data processes interweaves with the very core of what we are talking about when we are talking about justice, who we are seeking to address, and how we might pursue it. In drawing on Fraser’s framework for thinking about these issues, we want to highlight the continuity of these disruptions and to stress how data processes are part of long-standing struggles that have often been side-lined or ignored in justice debates by assuming the stability of these ‘nodes’ relating to the ontology, scope and procedure of justice.

## **How do we approach justice in the context of data?**

In recognizing the implications of datafication for understandings of social justice, we therefore move from an explicit concern with ideal theory that aims to outline a unique set of ‘principles of justice’ towards a concern with existing social conditions. As Amartya Sen (2005, 2009) has argued, theories of justice have tended to concentrate almost exclusively on the ideal of ‘just institutions’ at the expense of an assessment of justice rooted in the actual lives that people are able to lead. In his ‘capability perspective’ on justice, Sen’s focus is on the opportunity to ‘achieve valuable combinations of human functionings – what a person is able to do or be’, which will be dependent on certain circumstances

(including a lack of alternative possibilities). Whilst Sen's contribution allows us to engage our justice concerns in social conditions and lived experiences, we have found particular value in critical social theory and the work of Iris Marion Young (1990, 2011) to advance a more explicitly politicized approach to social justice that we think is appropriate for the current datafication paradigm.

In rooting our approach in critical social theory and critical social science, we commit to the pursuit of research that exposes and explains power structures and relationships with the view to alleviate unnecessary and unwanted suffering (Fay, 1987). Yet, as proposed by Young, rather than a top-down diagnosis of social life with a knowing initiator, a sense of justice in this context arises not from looking, but from listening (we find this particularly pertinent as many critiques of data-driven decision-making rest fundamentally on big data's promise to govern *without listening* to citizens). Taking her cue from the rise of post-1968 'new social movements', Young advances a theory of justice that goes beyond what she describes as the 'distributive paradigm' and towards a concern with conditions of domination and oppression, as expressed by social groups. The point here is to highlight the social structure and institutional context that often help determine distributive patterns. In particular, issues of decision-making, power and procedures, division of labour, and culture. Whilst Young acknowledges that distributive issues become part of injustices, the scope of justice must be more than that. It must not, she argues, ignore the less tangible and physical elements of justice, which include the political, structural and relational elements of rights (rather than rights as possessions) that are contingent upon institutionally defined rules.

The focus on social groups, and on the politics of difference, is particularly pertinent for thinking about social justice in an age of datafication. Social groups are a way in which people's identities are constructed, enabling them to understand who belongs to them, and how one relates to other individuals. Oppression of social groups on the basis of the groups' shared commonalities enables a systematic exclusion of individuals from participation in social life. As has been highlighted by several colleagues working on the intersection between data and social justice, the politics of categorisation and classification that is inherent to datafication creates new forms of oppression through the abstraction of identities into algorithmic processes, and the formation of group commonalities that are fundamentally alien to individuals and social groups themselves. We can think of this here in terms of what Terranova (2004) has referred to as a struggle between 'macrostates' (categories of identity that we normally think of as politically owned by us, like gender, race, and citizenship) and 'microstates' (the nonlinear connection of identities to an endless array of algorithmic meaning, like web use and behaviour data). Importantly, these struggles are embedded in a political economy underpinning the advent of datafication that leaves the data subject with little or no agency over group identification, the construction of groups, or how group profiles enable or disable their participation in politics and life.

Like Sen and Young our starting point is therefore that the ideal notion of justice (particularly in terms of distributive means) is not enough to question

the implications of obscure, unaccountable and interwoven decision making created by datafication. The value of an approach which identifies actual injustices is that it foregrounds the need to understand where claims of injustice come from, instead of what justice should look like. Our entry point is therefore to situate systematic domination and oppression imbued in datafication by exploring practices whilst 'listening' to the lived experiences of marginalised groups within society; low waged workers, refugee and asylum seekers, and minorities targeted by law enforcement (which are groups in social contexts that have been highlighted as particularly relevant for understanding developments in datafication and are the focus of our project). Specifically, through identifying and exposing how data systems are affecting marginalized communities' potential for cultural and political participation, life chances and access to fundamental rights we aim to (re)politicize data and demonstrate its relevance to social justice issues and advocates. This requires an explicit connection between the questions raised by the condition of abnormal justice and the particular social context of actual injustices in people's lives.

Such an approach to justice is useful to us in the context of data as it provides an avenue for situating data within existing social justice agendas and as part of understanding conditions of domination and oppression. Currently, developments in data are often siloed as being primarily a technical concern or a digital rights concern focused on privacy and data protection. Previous research has highlighted a prevalent 'disconnect' amongst activists and social movements between technology/data concerns and social justice concerns (Aouragh et al. 2015; Dencik et al. 2016). Highlighting the extent to which data processes and their political economy have reinforced or shifted existing power structures, strengthening the interest of a few and leaving the burden of datafication to be borne by marginalized groups (O'Neill, 2016; Taylor, 2017; Eubanks, 2018) directly connects different justice concerns and situates data in relation to power.

## **What do we mean by data justice?**

Fundamentally, it is this (re)framing of data as a social justice concern that is at the core of many discussions and practices relating to data justice. However, often, the approach to data justice has taken the technology or the data process itself as the entry-point for highlighting social justice issues (such as questions of discrimination and bias in machine learning; or a focus on over-representation in data-sets or asymmetries in interpretations of data). As is now increasingly pointed out (e.g. Crawford 2018), taking such an entry-point risks neutralising issues of social justice to questions of technology, effectively promising technological solutions to social problems. Moreover, by outlining universalists criteria and principles of justice in assertions of data justice, we often risk bypassing more fundamental concerns with how data processes relate to historical and on-going struggles over power dynamics and the organisation of society. What we are presenting is an approach to studying datafication that

privileges the social conditions and lived experiences of those who are subject to domination and oppression in contemporary society. At its most basic, this involves an entry-point into the debate on data justice that does not necessarily start with the data system itself, but instead the dynamics upon which data processes are contingent in terms of their development, implementation, use and impact.

Through this lens, datafication is not a revolution that is drastically changing the structural power and political economy of modern society, but an extension of conditions that have resulted in grievances and injustices towards historically marginalised and politically sculpted targets. Similarly, the asymmetries and stratifications of 'haves' and 'have nots' between different data classes that are inherent to current advancements of datafication (Citron and Pasquale, 2014) are seen as an expression of concentration of power and related to a wider trend of privatization and deregulation, along with a shift in decision-making away from the public realm.

Therefore, previous theories of justice continue to be relevant and must be applied so as to better identify and understand the continuation and furthering of existing injustices through datafication, in a hope that by doing so we can begin to formulate ideas of how to battle these injustices and move towards a means of empowering those made most vulnerable, those most marginalised and those most excluded in society today. In other words, engaging with data justice requires political engagement, rather than merely technological, technocratic or even moral engagement (e.g. algorithmic accountability measures or ethical guidelines), and involves the active collaboration between different groups and movements that combine economic, social, cultural, ecological and technological dimensions in articulating both problems and solutions. Such an approach, we hope, will enable the identification of historical patterns of oppressions, and also illustrate how data driven processes are agents of particular on-going political projects. This will not only enable us to expose systemic injustices borne unequally by marginalized and resource-poor groups, it will also allow us to apply more structural analysis to datafication in terms of decision-making, division of labour, and culture.

In other words, data justice is a lens through which we can understand the relationship between data and social justice, to critique the political agenda that governs datafication and allows us to understand how data contributes to structural conditions that continue or create new injustices. Our starting point, understanding technology in relation to practices and lived experiences that pertain to marginalised and resource-poor communities, not only aims to expose systemic injustices in an age of datafication but, importantly, strives to provide a framework that breaks the silos and situates data as a concern for broader social justice groups and movements. This invites more voices to participate in articulating injustices and facilitates critical reflection of where and how governance and agency reside, questioning the boundaries of the investor, engineer, policy-maker, case-worker, and citizen. We hope to engage in many such debates and practices.

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