Chapter 9
Data-Based Frictions in Civic Action: Trust, Technology, and Participation

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The contemporary technologies of urban experience include a range of technologies such as "smart" devices measuring traffic levels, air quality or footfall. "Smartness" as a mode of urban design and governance refers to processes through which technologies are embedded and become ubiquitous in cities. "Smartness" tends to keep pace with technological change, with "smart cities" embedding internet technology, data-driven technology and sensor systems as these have become available over time (Powell, 2021). Roche (2017) outlines that enhanced socio-spatial literacy based in practices such as using metrics, judging location, and considering scale might be the result and requirement of a smart city, and suggests that these parallel the operators available in Geographic Information Systems (GIS). This implies that citizen skills and practices should reflect or draw upon the logics and framings of smart city management technologies.

These general trends of smartness and optimization also impact on processes of civic engagement: Assumptions that citizens should engage with data, either spatially represented or otherwise, underpin contemporary processes for civic participation (Marres, 2015a; Powell, 2021) framed in terms of the local government's capacity to fulfil a duty to the citizenry of improving efficiency of services (Juvenile Ehwi, Holmes, Maslova, & Burgess, 2022). However, as Juvenile Ehwi et al. (2022) identify, a number of ethical issues emerge from the reformulating of complex issues into computable processes. "Smart cities can have a stupefying effect if decision are geared towards efficiency at the expense of expanding knowledge and

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understandings of experiences of the city" (Sennett 2018, cited in Juvenile Ehwi et al., 2022). This is particularly significant for policy issues that are complex and with broad, long-term impacts, such as responses to climate change.

This chapter examines civic engagement with policy efforts at optimizing for sustainability, looking at how "smart city" policymaking processes can generate antagonistic responses that illustrate a lack of trust in data, and an associated lack of trust in elected officials and the democratic process in general. The chapter examines oppositional citizen responses to policies aimed at lowering vehicle traffic and air pollution by creating "Low Traffic Neighbourhoods" (LTN) in inner London, UK, investigating how these responses leverage narratives of systemic inequality, distrust and lack of accountability in the face of the "smart" governance strategies. By examining discussions taking place in a Facebook group composed of residents concerned about LTN policies, the chapter reveals the slow development of antagonistic and disengaged narratives in this discussion space, suggesting that smart governance strategies may have severe shortcomings in terms of public values or inclusive planning.

Literature Review

"Smartness"

Smartness is both a technological mandate and a governance frame. "Smart" technologies are positioned as tools for more effective control and management of complex urban environments (considered as "top-down" smart urbanism) and as effective means for educating or empowering systems to participate in urban life ("bottom-up" smart urbanism). Top-down smart urbanism focuses on a city as a system (Batty, 2013) and often involves shifting urban planning and decision-making towards the embedding of technologies in order to facilitate this: examples include prescriptive analytics for public transport (Wu & Yang, 2017), and data-based monitoring of traffic, air quality, noise or congestion, which is often aggregated on urban dashboards (Kitchin, 2016). The entwining of technology and governance means that decision-making power in smart cities can be shaped by technology companies rather than municipal governments (Castelnovo, 2019; Ruhlandt, 2018). As well, the shift towards "platform-based" urban governance, which focuses on collaboration between governments, universities and companies can reposition the role of local government towards that of a "broker" or intermediary (Deakin, 2014). By contrast, "bottom-up" smart urbanism focuses on the ways that ubiquitous technology might enhance the capacity for citizens to participate in urban governance, through structures of participation enabled by platform governance as well as the affordances of digital technology.

Halpern and Mitchell (2022) suggest that smartness is primarily an epistemology rather than a technology. They view smartness, instantiated through a range of emerging technologies, as a mode of life. This mode of life is grounded in

data-driven logics and aimed at "optimizing" certain functions and processes. Optimization, the management or improvement of systemic outcomes within defined boundaries, is a consequence and key component of smartness (Halpern, Mitchell, & Geoghegan, 2017). Donolo and Donolo (2013) argue that governance of "smart cities" requires expanded civic knowledge and greater accessibility of urban data. In many ways, citizens are not only invited but expected to participate in urban governance by interrogating government data, collecting their own data or "providing personal subjective observations, in analysing aggregated anonymized data from their collective networks … and applying expertise from their personal local experiences" (Roche, 2017, p. 662). The expectations of civic participation and engagement with data and the concomitant development of smart city governance frameworks that rely on data at the expense of expertise might intensify inequality.

The promise of smartness has been widely critiqued, both on the grounds that the technical equipment of smart cities creates ideal conditions for intensive surveillance, both through top-down processes of sensing and monitoring and also through bottom-up practices of self-quantification including the use of individualised route planning and recommendation systems. One important critique of smartness mandates is the critique of the logic of optimization itself, which draws from computational logics to promise improvements in functionality for data-based systems.

Optimization and Its Impacts of Governance and Democratic Process

The current logic of smart city development hinges on a logic of optimization. This logic of optimization can be placed in service to different ends—efficient movement of motor vehicles, perhaps, or reduced consumption of fossil fuels within publicly-owned buildings. Many smart city propositions are therefore framed as potential ways to achieve aims associated with sustainability. Sustainability itself thus becomes the object of an optimizing process, measured against success metrics and becoming an object of investment. Critiques of optimization identify how focusing on a narrow-range of data-based indicators may exclude other forms of knowledge and may intensify power dynamics that alienate citizens.

Optimization, aiming to improve certain measurable aspects given specified constraints, necessarily presumes the capacity to define those aspects and the means of measuring them, including the definition of constraint. McKelvey and Neves (2021, p. 97) identify that optimization is a "form of calculative decision-making embedded in legitimating institutions and media that seek[s] to actualize optimal social and technical practices in real time." They identify the extent to which optimization, from its original mathematical definition as the best solution among multiple options, has expanded to operate as a mechanism of legitimation for governance decisions. As this has occurred, optimization has become a socio-technical practice that defines relationships, foregrounds certain knowledge and practice at the expense

of others, and defines power relationships. Halpern and her co-author argue that optimization works from relative, rather than normative principles, making it difficult to specify the ultimate normative aims of an optimization process. They write, "to optimize is to find the best relationship between minima and maxima performances of a system. Optimization is not a normative or absolute measure of performance but an internally referential and relative one" (Halpern et al., 2017, p. 119). Optimizing is therefore always tuned towards a relative improvement of a measurable state. Because achieving this means both measuring and defining out elements not concerned with this measurability, optimization cannot ever be complete. As McKelvey and Neves (2021, p. 102) put it, "the ends of optimization are without end." Logics of optimization can shape what kind of citizen participation is invited or legitimated (Powell, 2021), or what kind of creativity is valorised (Morris, Prey, & Nieborg, 2021). Politically speaking, optimization invites the performance of a calculative mindset which considers what information can be put to use to determine "what is 'best,' 'favourable,' or even 'better'—it not only *describes a process* (for rendering optimal) but also entails a claim (about that which is optimal, or best) … optimization necessarily articulates social, political, or other commitments as well as their ideal or maximal expression" (Stevens, Hoffmann, Florini, 2021, p. 115). As a deep structuring logic lying beneath technological equipment as well as governance procedures, optimization operationalizes smartness, prioritizing efficiency and predictable outcomes.

Governance processes within smart city logics also embed logics of optimization, seeking to streamline urban service delivery as well as civic participation by creating space for "co-creation" using smart city resources (Bolz, 2018). Co-creation also implies expanded roles for technology companies, other businesses and academic institutions, which may have different understandings of the significance of participation. Critiques of these strategies identify that co-creation may, from a citizen perspective, be tokenistic and technology-driven (Wolff, Gooch, Cavero, Rashid, & Korteum, 2019). Furthermore, these processes fundamentally operate on principles of optimization, seeking to make citizen participation legible, streamlined and predictable, from the perspective of the government as well as its partners. As Marres (2015b) argues, these modes of governance compel participation by directing it towards pre-defined ends or into times, places and communication modes that align with powerful frames.

These processes also embed aspects of what Boltanski and Chiapello (2005) describe as the "project-based" orientation towards social life, which is focused on and directed towards definable projects. A project-based logic at work in the sphere of governance, for example, drives investments in collaboration and partnerships between cities, businesses and universities (Deakin, 2014), as well as the mobilization of citizens in decision-making (Cardullo & Kitchin, 2019). This concept of governance depends upon partner networks (Pierre, 1999). These project-based or partner-led models change the enactment of working relationships and decision-making protocols (Kourtit et al., 2014). Juvenile Ehwi et al. (2022) identify that these changes in governance relationships raise important questions about how civic engagement is performed within smart governance contexts. They note that smart

governance strategies for engagement, including strategies such as "hackathons" that depend on citizen engagement with data, appear on the surface to foster inclusivity in creating solutions to urban problems but often fail to do so. These failures stem from the sense that these efforts are sometimes "imbued with predetermined outcomes which run counter to established democratic principles of urban governance" (Obeng-Odoom 2017, cited in Juvenile Ehwi et al., 2022).

The practice of democratic, participatory urban governance is often schematized as a ladder (Arnstein, 1969) or a spectrum (International Association for Public Participation, 2018) of participation or decision authority. In these schemes, increasing capacity for shared decision authority or meaningful participation ranges from the public being informed of decisions to the public being capable of collaboration or empowerment (Nabatchi, 2012). Schematizing participation can also be aligned with attempts at optimizing participation by aligning it with pre-determined goals and outcomes. The prioritization of systematic rather than holistic knowledge creates an environment that privileges forms of participation that align with the forms of knowledge already prioritized within the smart governance environment. These include digital data but also structured forms of evidence that align with perceptions of the city as a system. While keywords related to democratic governance such as "trust" and "accountability" are leveraged within smart governance processes, they are often abstracted in ways that remove experiences of territory or feelings of conflict and that create structuring effects that intensify and polarize conflicts and differences. This creates some of the conditions for populist, even antagonistic responses to smart governance projects.

This chapter examines citizen responses to low-traffic neighbourhoods, which are policy interventions seeking to reduce vehicle traffic on residential, narrow or non-major urban roads. At issue in this essay is not the policy outcome of LTNs, which is to reduce vehicle traffic and air pollution by creating barriers to entry for motorized vehicles. Rather, it is to the way that a dynamic of data-based optimization frames and shapes opportunities for citizenship, and the way that this shaping intensifies dynamics of antagonism and mistrust that undermine efforts to use participation and consultation to ensure smart governance is trustworthy and legitimate.

Low Traffic Neighbourhoods: Optimizing or Alienating?

Low-traffic neighbourhoods restrict through-traffic on some roads using barriers, permitting access by pedestrians, bicycles and other non-motorized vehicles, as well as measures that reallocate road space away from motor vehicles such as expanded pavements with seating and bicycle racks, boulevards for cycling, and removal of parking. Low-traffic neighbourhoods are considered in urban planning as one of the lowest-cost measures to address pollution, air quality, climate change, road congestion and low levels of physical fitness among urban residents.

The chapter situates the LTN introduction in the context of the smartness mandate and efforts to optimize participation, reflecting on the extent to which these

processes attempt to present value neutrality on the part of the government decision-makers (see Davidoff, 1965 presents results of a thematic analysis of online comments on a Facebook group composed of citizens concerned about the introduction of LTNs in one London borough).

The city of London, through decision-making by the citywide transport authority Transport for London and local borough governments, instituted 101 low-traffic neighbourhood schemes during 2020 and 2021. These were introduced as experimental pilots during the first coronavirus restrictions, with public consultations beginning in 2021. The broader political-economic background to these schemes involves not only the increasing levels of vehicle traffic on London's roads, the Greater London Authority's commitment to Net Zero and broad public support for reductions in traffic but also a decade of funding cuts to local governments and a number of policies restricting the capacity for local governments to raise funds themselves for these schemes, leading to a dependence on the central state as well as establishment of alternative ways of generating revenue in order to support their public services—including parking and traffic fines.

The introduction in 2020 and 2021 of Low Traffic Neighbourhoods is an example of prescriptive smart governance—it attempts to nudge or strongly encourage shifts in individual and collective behaviour. It is data-based in policy terms since the zones defined as being suitable for LTNs are defined based on air pollution readings and the density of particular types of roads, and is enforced through "smart regulation" consisting of the use of automatic licence plate cameras that automatically deliver fixed penalty notices to drivers who enter them—a feature which is more inclusive than physical roadblocks but which is also viewed as a mechanism for local governments to generate revenue from these schemes. The schemes are also embedded within data-driven, spatially-oriented frameworks for participation: decisions about which roads to close have been, in some London boroughs, undertaken through participatory online mapping exercises undertaken with cycling and active transport organisations and extended to the public in the early phases. In all schemes, maps and published data (including air quality data, numbers of vehicles on major roads and statistics on the approval of various design options) are distributed, and participation from citizens is encouraged to occur online, through surveys, map annotations and online meetings.

Despite incredibly broad agreement across the UK that climate change is a serious issue (a recent poll suggests 80% of voters are concerned about climate change), and activist and media attention to the poor quality of the city's air, opposition to LTN schemes has been substantial, leading two London boroughs to abandon their proposed plans. Of course, any urban planning scheme inevitably attracts dissenting voices: the question here relates to how these dissenting voices engage with three key aspects of smart governance: the use of data, the generation of trust and accountability, and the overall legitimacy of the planning decisions. The qualities of dissent in this case and in particular the ways that smart governance displaces particular forms of knowledge and hence creates the conditions for divisive politics driven and intensifying difference and inequality.

Methods

The findings discussed here are based on a thematic analysis of Facebook postings made between June 2021 and June 2022. The thematic analysis identified three key themes relevant to the processes of smart governance: a critique of data-driven decision-making, a sense of these policies as socially divisive, and are critique of the legitimacy of local government, which led over time to a shift in the group's discourse towards expressions of populist dissent and, in the run-up to local elections, emerging advocacy for right-wing political parties.

The posts discussed here were posted in a publicly-accessible Facebook group between June 2021 and April 2022. This group has 2500 people and is described as "a diverse group of [borough] residents adversely affected and deeply concerned by the impact of LTN schemes." As this is a closed Facebook group and only accessible to people who express interest in LTNs it is not representative of a range of views. In presenting data here I have tried to represent the range of concerns while protecting the identities of the contributors, who are posting online in they may perceive as private space. This is especially important because the group is a space where I observed shared feeling, especially as it circulates in a quasi-anonymous online space, raises issues of feeling that include feelings of displacement, mistrust, and alienation. The thematic areas discussed here appeared frequently within group discussions. In line with responsible research ethics, I have not included any direct quotations from group members but have instead provided paraphrases of comments that I collected and analysed. Paraphrasing tries to reflect as much as possible the style and tone of original postings while removing any identifying information that would permit the re-identification of anyone participating in the group. Geographical information is also removed.

The analysis of the discussions in the group follows the broad tradition of discourse analysis, with a focus on interpreting how "the concrete, situated actions people perform with particular mediational means (such as written texts, computers, mobile phones) … enact membership in particular social groups" (Jones, Chik, & Hafner, 2015, p. 2). Discourse analysis focuses on text, contexts, interactions and power. As such, the themes identified and discussed here connect with one another and illustrate how the anti-LTN discussion moved from critiques of smart governance strategies, including reliance on and use of data to communicate how policy decisions are made as well as the use of consultation as a validation exercise, towards more evocative, affective and antagonistic statements about alienation, government greed and the lack of legitimacy of the LTN schemes. The thematic analysis is set within a framework examining not only what is written and how shared meanings are generated through comment and interaction, but also the social order that this creates and the power dynamics it represents (Chouliaraki & Fairclough, 1999).

The anti-LTN Facebook group provides space for frustration and dissent, while also building up, over time, a discourse and social context that de-legitimizes both the practice of smart governance and the notion of participatory (or even socially legitimate) planning. This poses challenges for the local government, which comes

from the Labour party, traditionally associated—especially in London—with radical, inclusive, socially just planning, as well as with the maintenance of democracy. Despite not being tightly organized, consistent messages especially those posed by a small number of regular writers—reinforced a sense of alienation and a weakening of the legitimacy of the local government. In particular, a few of these contributors strongly framed connections between the data used to justify the policy decision, the sense of marginalization expressed by others, and the political ideology of the Conservative party, which had traditionally not had much electoral success in the local area and which had been explicitly leveraging a newly populist identity in the local context. This identity included Conservative party electoral material that explicitly suggested that LTNs encroached on individual freedom and suggested voting Conservative in order to secure freedom from government control. This echoed posts from one of the core contributors to the Facebook group that positioned LTN policies as exacerbating a sense of alienation and inequality.

The group discussion included discussions of other forms of collective action, including the crowdfunding of a legal challenge to the LTNs on the grounds of a failure to comply with equalities legislation, and the printing and distribution of large signs opposing the schemes. Group members described donating money to the legal appeal, and purchased signs and placards for themselves and also for "donation" to other group members living on main roads or areas with high visibility. One frequent contributor (the same one who made political statements) photographed one of their relatives installing the road signs in different locations around the neighbourhood. The group also shared and commented on news—local, regional and national—with relevance to LTNs or to local politics. Many news articles shared in the group come from the Taxi News Network, a taxi drivers' lobbying organization.

Findings

The three main themes reiterated over the discussion are: a critique of data-based smart governance, a claim that LTNs exacerbate inequality, and a broader questioning of the local government's legitimacy. These unfold in relation to the text, contexts, interactions and power that make them influential for a discussion of smart governance. Specifically, the broader framings of power create a space for populist political discussion.

Critiques of Data-Based Smart Governance

From the perspective of the smart governance context, the anti-LTN discussions respond both to policy-making based on principles of data-based optimization and to the conventional considerations of consultation and how consultation data is employed within smart governance. Some regular contributors to the group,

especially during the early phases of observation, commented on the use of particular forms of data to legitimate the creation of LTNS: This included air quality measurements as well as appeals to COVID legislation requiring increased space on roads. Texts on the sources of data quickly began to include critiques of the intentions of the planners or the exclusion of citizen voice, and the interactions between people posting and commenting moved towards speculation on the motives of the local government. This thread illustrates how the texts and interactions move from data, through concerns about legitimacy and towards evocations of alienation and inequality. This paraphrased conversation thread is illustrative of the role of the group's interaction in positioning data and smart governance:

GG: I looked through the comments and they talk about 'rat running' making roads dangerous. My neighbours left comments but I can't see them. I don't trust these surveys.

AL: There is a pro-LTNer in the area of that map. I am sure he has been adding lots of his points as soon as he could.

BP: The usual. Saying they don't feel safe cycling. Worried about rat running. Bullshit.

MM: This is nothing less than evil doings on people's life creating false reports to make money from fines and from European green parties in grants and bonuses. They are all corrupt.

EP: Vote them out.

MM: Yes, but they are all corrupt can't trust them and I'm sickened that Khan got back in—who voted for him? Pensioners are locked in and loss use of their legs no understanding of the internet.

Participants also critiqued the use of participatory mapping as a consultation strategy, suggesting that the use of these participatory tools was performative rather than consultative:

GG: On these maps you can post more than one comment. It's not clear that's how it works and obviously some people are taking it as far as they can.

MR: Dont' they only count one if it's from the same name?

GG: That's not what I have been told. They just make up the rules, changing it all the time.

GG: The [area] map was considered 'unrepresentative' by councillors when that consultation closed, just because it was clear that most of the entries were critical of the LTN project.

Consultation is notoriously difficult. However, the tension between the perceived necessity of participation to validate policy decisions and the generation of data for analysis is clearly obvious to the LTN group participants. Through their comments on the map, they suggested that the local government's data were unrepresentative, and that comments or opposition were being ignored. The mapping platform being used required a two-step online registration. Commenters claimed that these maps did not strongly involve people and were not representing dissent (or if they were, that dissent was dismissed). Group members responded by collecting their own data—largely in the form of photos or videos of gridlock where there hadn't been any previously. These videos and photos were usually accompanied with comments like the one paraphrased above, discussing the speed of car trips taken in the past and how much longer they were taking now. Some videos taken from upper-story windows appeared to show long lines of cars near a primary school.

Another set of posts reported on a volunteer effort to "staff" a newly introduced automatic number plate camera in order to engage the public in critiques of LTNs as well as to help drivers avoid fines. Through a thread on the group, eight volunteers, led by the politically outspoken commentator, were organized to spend 2 h each standing under a camera at the edge of an LTN zone. The volunteers approached each motorist coming towards the zone and explained that there was a camera installed there that would trigger a fine. The volunteers logged each interaction and reported back all of the conversations to the Facebook group. Most of the interactions were reported as being short and resulting in the cars turning around (often with thanks for helping the drivers avoid a fine) while some were reported as longer conversations about the impact drivers felt about the LTN, resulting in some drivers joining the Facebook group. This intervention demonstrated that the group held the capacity to empower participation (Nabatchi, 2012; Arnstein, 1969) in opposition to, rather than support of smart governance policies.

Alienation and Inequality

Opposition to Low Traffic Neighbourhoods leverages concerns about a range of inequalities. In September 2021 one of the members of the LTN group undertook legal proceedings against the local government, arguing that the rollout of LTNs using emergency COVID legislation violated their rights as a disabled person. While a judicial review ruled that no specific violations of the rights applying to "protected categories" of persons (which includes disability), the judge's comments suggest that impacts of LTNs have not necessarily been able to fully include issues of inequality—including not only "protected categories" but other bases for discrimination.

In Summer 2021 the Facebook group discussed this case in detail, and in the period following many posts focused on themes of inequality and discrimination, especially a perceived discrimination against poorer people who (it was argued) were more likely to live on main roads and "boundary roads" at the edges of LTNs and therefore not gain the benefit of reduced traffic. While this claim is not supported by demographic, traffic or air quality data, the sense of having been overlooked, discriminated against and being on the losing end of urban improvement policies was a consistent theme, expressed well in the hashtag #londonisruined used within the group. This sense of the city having been "ruined" by changes to the way vehicle traffic circulate were connected with critiques of class-based inequalities, suggesting that reductions in vehicle through-traffic on residential roads was part of an effort to force ethnic minorities and poor people out of inner-city neighbourhoods. This paraphrased excerpt illustrates this theme:

> I completed a consultation saying that there was a lack of consultation for disabled, carers and traders. These schemes only benefit those without a heavily timetabled work life if they have one at all, who wants silence with their morning coffee.

Contributors to the group also shared a documentary film trailer produced by a filmmaker from another area, whose themes focus particularly on inequality and perceived community division as a result of the LTN schemes. Shots in the film trailer linger on the physical infrastructure of the scheme, including planters and bollards, with voiceovers saying "they have created a border: there is us over here, and them over there" and "the council is trying to create a division between what they call the 'million-pound house people' on one side and the council residents on the other." This language and visual imagery of the film was celebrated and discussed in terms of the financial benefit of LTN schemes to the local government.

Other posts made claims (in contrast to officially collected data), that traffic reductions only benefit residents of side streets and displace pollution on to main roads, and one reported reading that real estate listings had begun to include the phrase "inside one of London's exclusive low traffic neighbourhoods" to advertise expensive property. These claims connect with a deeply held frustration about who "sustainable, smart" cities are meant to benefit.

This theme also illustrated the limitations that participants encountered as they attempted to use the formal mechanisms of consultation and legal challenge to foreground their knowledge. In this oppositional, antagonistic mode of governance the knowledge and experience of people need to be positioned in relation to the legal frames and regulatory opportunities provided in contexts where participation is constructed more narrowly. The legal challenge proceeded through the courts through 2021 and 2022, finally to be rejected by the Supreme Court.

Erosion of Trust and Entry into Open Political Space

A third cross-cutting theme builds from the previous two, assembling what appears to be a logical connection between dismissive consultation, pervasive inequality and widespread corruption within local government, opening a space where populist perspectives can be perceived as legitimate. By presenting comments on these three themes in succession, members of the group collectively suggest a causality, or relationship between the themes. This is reinforced by the way that group members can add reactions to posts, validating the feelings or sentiment behind them. The most emotive and heavily commented threads within the group focused on elected representatives, including London mayor Sadiq Khan and one of the local councillors. People making posts used creative as well as dismissive language, manipulating the name of the local area using variations of "scam/scum", and modifying the name of the local councillor to include the word "scary". This language play creates the sense of a trusted "insider" culture within the group, operating against the encroaching "outsiders" who might change the way their neighbourhoods' function. Sometimes, this insider/outsider dynamic specifically referred to the LTN projects as "gentrification", contextualizing these projects as forms or aspects of inequality. Another example is this comment:

> This could be a life or death issue, so why? So as the so called representative can impose
> their will on the rest of us! I mean the cycle lobby who believes only themselves are con-
> cerned about air quality, using false criteria while relying on delivery services using motor-
> ized transport and air travel for their holidays!!!!!

The theme of "life and death" reoccurred frequently, as commentators suggested that the creation and maintenance of LTN schemes were displacing traffic in ways that would "send us to an early grave" as one commentator wrote. This emotive discourse leveraged the idea of survival and inequality as well as the separation between "us" local residents and "them"—an imagined urban elite comprised of bicycle-riding local government members or "young professionals"—wealthy, incoming and disconnected from the existing community, who frequently mention disability, poverty, and long relationships with the local area in their comments.

Contributors to the group were hyper-vigilant about the behaviour of elected officials and attentive to any potential hypocrisy. When the London mayor apparently drove through a different LTN, furious comments suggested that he could not have possibly legitimately won his most recent election. Commentators also consistently suggested that local government officials were corrupt, at one point publishing a diagram with lines drawn between the elected officials and cycling advocacy organizations. In November 2021 one of the group members posted a poll asking how members would vote in the next election—with most people unsurprisingly reporting that they would not vote for the incumbent centre-left party. The traffic restrictions, combined with frustration about restrictions on everyday life as a result of COVID-19 provoked a politicization of group members. This paraphrased post indicates the strength of feeling:

> These lies about roads, covid and pollution are false and push an agenda that a few use to
> better their lives. While the rest suffer. Never would I have complained about road issues
> until these LTNs came in. This says it all.

Together, the expressions of alienation and the affective and interpersonal quality of the conversation begin to frame the planning process as inevitable, exclusionary and arbitrary (that is, from the perspective of commentators). This creates space for an affective response to the LTN policies, which began to be addressed through sharing political material from the Conservative party. In this area of London, Conservative politicians have never previously been elected, since the electorate, composed of a large number of people in relative poverty or in what was considered the English "working class" did not find ideological common cause with Conservatives. However, in the anti-LTN group, participants argued that the Conservatives would be better equipped to address the area's systemic inequalities.

Discussion

Practices of democratic governance like the ones in place in cities in the Global North depend on participation from citizens. This has been infrastructured (see Marres, 2015a) into participation through a variety of modes: through

data-extraction in the service of optimizing urban processes, as discussed above, as well as participation in consultation processes. Increasingly, such consultation processes are also digitally-mediated and digitally structured. Such processes of consultation structure participation towards particular ends—not only the generation of data but the validation of optimizing processes begun through technocratic effort. As DiSalvo (2022) explores in their discussions of involving publics in the development of community services, it is possible to create strategies for participation that capture affective aspects of participation: the feeling of belonging.

For proponents of "smart city" processes involving data-based policy decisions and data-driven modes of consultation, citizen involvement validates and supports these policy decisions, becoming a social infrastructure that also sustains the policy infrastructure, sustaining its potential claims to democratic or public relevance of decisions. In the case of the anti-LTN group, the processes of consultation appear as a fait accompli, with civic action positions either as validating data-driven decisions or, if this fails, employing formal and oppositional mechanisms.

Knowledge Asymmetries

LTN opponents question the foundations of data and question the relationship between abstract spatial planning and lived experience of territory, which includes habits such as driving as well as driving as a response to disability or work. These habits are associated and aligned with an experience of the particular places in which they work and live, and with the ways that they understand and express their political positions.

Smart governance prioritizes efficiency, yet all governance strategies depend on trust and accountability. The trajectory of discussion in the anti-LTN Facebook group suggests that when trust and accountability are reduced to publication of data, and consultation to the performance of requests for comment, a discursive space opens that holds the potential for appropriation by new political forces.

This chapter has discussed how shifts in the exercise of democratic participation intersect with asymmetries in information between different actors, including local governments but also groups of citizens. It suggests that asymmetries in information, and different standards for data and evidence production between powerful and less powerful actors play into dynamics that intensify *antagonistic* rather than *agonistic* frictions surrounding data, weakening the legitimacy of smart governance strategies and opening up space for populist positions. In turn, these antagonistic frictions reinforce the use of prescriptive approaches, including the expansion of the use of "trace" data where consent is not possible. This suggests a need to reposition "smart governance" development in ways that might mitigate these asymmetries and introduce the potential for a broader range of knowledge to become part of governance discussions. This might be particularly relevant for governance structures seeking to create deep involvement in decision-making, beyond the merely consultative. As some work on participatory data governance has illustrated (Micheli, Ponti, Craglia, & Berti Suman, 2020), this can be possible in a data-driven

context. This could include foregrounding opportunities for citizens to define which data are most significant for their knowledge of the city, opportunities for data to be gathered in commons and placed in conversation with data collected in other ways, and for renewed attention to the necessary conflicts that also underpin representational democracy.

Conclusion

Embedding data-based technology into prescriptive policy processes reinforces inequalities and unequal dynamics of power, by limiting reciprocity and therefore intensifying strong feelings—like alienation—that can't be expressed. Without space for strong feelings to become part of a socially validated process, these harden into antagonism and animosity. In the case of the LTN online discussion group, strong feelings motivated citizens to tell stories about their own observations, rendering these more legitimate than officially-collected data. Since reciprocity was not considered either through the data-driven policy-making process nor through any other parts of the LTN process, opportunities for agonistic disagreement hardened into distrust. This chapter provides one example of what risks to democratic practice might proceed from a narrow focus on data-driven, prescriptive planning alongside a failure to provide opportunities for reciprocity. In addition, other aspects of holistic technology development may need to be combined with opportunities for reciprocity—such as the capacity to reverse decisions, the capacity to consider the interests with which technological decisions are made, and the temporalities of these decisions. The current and accelerating climate and public health emergency requires new organizational approaches and a significant amount of social change. Potential for social change should be centred around the capacity to tolerate friction—to acknowledge and accommodate feeling rather than seeking to optimize at all costs. It should also value a wide range of forms of knowledge, practice and experience while also seeking to communicate information that cannot be intuited, in order to reduce the creation of new domains of ignorance. Such reciprocity is required in order to capture the enthusiasm and vibrancy of politics.

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