BEYOND ACCESS

Digital Governance and the Promise of Democratic
Accountability in Post-Pandemic India

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Beyond Access: Digital governance and the promise of accountability in post-Covid India

Abstract

In the course of the ongoing Covid-19 pandemic, public discourse around digital initiatives has focussed on access to the internet or enhancing the IT skills of citizens. But governance isn't simply an exercise in making information technology accessible but is also of making the system accountable to the governed. This also means ensuring the voice of most marginalised is heard in decision-making about welfare, even if it means stronger regulation of the pace of technology adoption. This challenge is inevitably dependent on the historical institutions that act on behalf of citizens and this article compares two set of Indian states with distinct institutional architecture to evaluate the drivers of preparedness on delivering on the promise of accountability in the post-Covid era. It finds variance both in terms of provisioning of social support as well as levels of protection from private intermediaries that have emerged alongside diverse varieties of digital capitalism. The key argument is that the variation in terms of enhancing citizens' is not simply an outcome of the IT resources or literacy among populations, but also depends in the way historical institutions mediate the process. Through this comparison, the article offers an original framework to identify pathways that lead to a more equitable and accountable governance in post-pandemic India.

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Introduction

The Covid-19 pandemic has brought into sharp relief the transformational shift brought about by the digitalisation of governance but its implications for the welfare state in India are still emerging. One broader trend that is evident is the divide between those able to use privately managed online services and those reliant on state-provisioned access to welfare to fulfil essential needs. Advocates for digitalisation, however, often confuse access to welfare with the potential of technological access, thus missing the gap that emerges in the lofty promise of digital governance and ground realities. The highly visible episodes of deprivation require us to think beyond this measure of access and focus on the challenge of retooling the welfare state in a way that technology enhances rather than degrades democratic accountability towards the most marginalised groups.

This article evaluates this key challenge and identifies pathways that can lead to a more equitable and accountable system. Moving beyond the problem of enhancing access to digital networks or lack of awareness about online services, the article frames the problem in terms of the role of mediation by private interests in the garb of interventions and draws a comparison across Indian states to evaluate the extent to which each has been able to enhance state accountability. In the digital era, the article argues, citizens not only need to be empowered to be able to go online but to demand their rights to privacy while their voice needs to be protected against the excesses of commodification by digital intermediaries which have become ever more central to the functioning of the welfare system.

While developing this framework, the article compares the politics of digitalisation in four Indian states to show that issues of trust and risk management are as important as the IT resources and strategies available to the leadership. It argues that with digitalisation, the state is leading to a fundamental shift in terms of the inclusiveness and trust in the social contract

that the state offers to various communities it governs while the economy of digitalisation has added new risks that curtail upon citizens' voice and participation. The comparison leads us to identify key variations across states in terms of digital governance and the role of institutions in reviving state accountability in the digital era.

A key finding is that even within the resource-rich states there are significant trust deficits, while the less resourceful economies are able to build strong safeguards against risks of exclusion and commodification. Discussed in terms of social support and protection from surveillance, we find that some states have rapidly adopted a high-risk and high-trust strategy and the historical institutions are not able to keep up with it. Resource-poor states like Rajasthan are faring better in building a trust-based model of digital governance while richer states such as Karnataka have faltered despite the initial head start. Using two additional case studies, Delhi and Telangana, and using examples from the Covid-19 era instance of digitalisation of welfare, the role of historical institutions and political ownership of ideas becomes clearer.

Institutions and Intermediation: Rethinking Democratic Governance After the Internet

The concern of the impact on citizenship means that the primary focus of the article is on the politics of digital *intermediation* and whether it enables a more accountable state by allowing for greater voice and participation. This concerns both sides of the modern state, one where it is constituted as communal entity with diverse groups and individuals coming together under a social contract. It also concerns the supply side of the state, where it regulates private intermediaries that channel the people's voice back into the system. In theoretical terms, the article draws on the classical ideas of voice and participation, not merely in terms of how many people click a like button on their political leaders Facebook page, but in more

substantial terms, or as Karl Polanyi argued, whether people have away to ensure that the state become an 'organ of the ruling millions' (Polanyi 1945).

Inclusion of the masses is the primary aspect we need to consider in digitalisation and consider how does technology enable its enhancement. In addition, the article also introduces themes from Popperian notions of 'open society' (Popper 1945) and thinks through the way in which technology can also enables a more democratic governance by allowing more freedom and direct participation that go beyond conventional modes of representation. In an effort to combine meaningfully the two ideas of responsive state and open society, we need to weigh on the social aspects of digital mediation in governance as well as the threats to the freedoms of citizens as they seek their rights and entitlements online.

This also chimes with Polanyi's double movement hypothesis, which at its simplest states that 'democratic states have the capacity to accommodate, dilute or repress demands for protection, while countermovements have multiple political paths to follow, including routine and contentious forms of political action.' It is in terms of a countermovement that we can imagine the role of digitalisation helping the people find their voice, at a time when conventional institutions of representation as well as the public sphere have become increasingly inadequate to make the state more accountable. Such movements need not be contentious but could emerge through active citizenship and their use of the internet to directly engage with state institutions as well as with one another through sites like Twitter and Facebook or even those developed by the state which in India's case remains the only actor able to engage the masses.

However, reliance on private intermediation or state patronage can lead to people's voices being turned into data and thus open to commodification for profit. While Popperian scholars of 'open democracy' argue (Landemore et al 2021), there is an urgent need to reinvent

democratic institutions for the digital era, commodification threatens to a degradation of citizens collective voice while feeding public opinion and individual preferences to the predatory engines of surveillance capitalism. The academic literature as well as themes in governance are increasingly seeking to incorporate the rise of digitalisation within such a framework and considering both the participatory implications as well as the negative the impact of digitalisation on the rights of the citizens.

For instance, the issue of exclusion features prominently in the reports on the impact of technology on welfare rights. A recent United Nations High Commission for Human Rights report argued that 'Digital welfare states thereby risk becoming Trojan Horses for neoliberal hostility towards social protection and regulation.'[1] However, in many ways, the context of neoliberalism tends to obscure the experience of the state in most parts of the world, where the impact of Big Tech increasingly combines with older forms of exclusionary, ethnic identity politics. In India, problems not only in terms of exclusion from the ambit of welfare but from the very nature of the social contract and the difficulties faced by those relying on more informal institutions of the political society to access welfare.

India: Hi-tech nation, slow in regulation

Hence before we analyse the impact of digitalisation on governance, we need to reconsider the political economy of IT and also the skewed model of 'ethnic democracy' (Jaffrelot 2021) which plays on cleavages across social identities rather than address welfare gaps across classes in the society. In such a context, the political leadership in India have the ability to use technology and social media far better than many in the West, not only to include but to

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[1] "World stumbling zombie like into a digital welfare dystopia, warns UN human rights experts" *Ohchr.org,* October, 2019. https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25156

exclude and shut down dissent. This makes the promise of digitalisation a double edge sword for governance, with entire communities *deleted* from democratic inclusion in the social contract let alone welfare, not because they lack access to the internet but because they are not favoured under the clientelistic linkages that underpin political economy of democratic governance in India.

In other words, the problem of a digital welfare state in India does not merely emerge from the possibility of false positives cases of 'welfare fraud', but also from the possibility that people are constantly excluded from citizens' rolls based on the nature of politics which varies significantly across states and also between the federal and regional levels. What this means, is that rather than *extraction* of individual data (Zuboff 2019) for profit, citizens could experience identity loss at the behest of *exclusion* by the state. The system can simply delete citizens' names from welfare rolls and this aspect makes digitalised economy and welfare a risky proposition. What we need to ask ourselves is how much more (or less) likely is it in the digital era. Afterall, it is well recognised that there is always a possibility of even democratic states 'weakening, neutralizing or destroying organized sectors of society that demand protection' (Goodwin 2018).

The national picture can evidently be quite different from the regional one, but how do we classify it, and what alternatives exist to the surveillance capitalism that seems to the outcome of 'digital by default' (Eubanks 2019) approach adopted in the Western states. To an extent until the emergence of this predatory form of digital capitalism, access remained an innocuous if somewhat mistaken idea. As observed by Saith and Vijayabasker, the key problem then becomes 'how to link, say, poor rural people to ICTs, not directly to land, nor directly to employment; access to ICTs is implicitly assumed to enable access to sustainable livelihoods' (2008: 27). But things have changed dramatically over the last decade.

At the federal level, the trend towards surveillance capitalism has intensified since the current regime took power in 2014, when visions of Digital India increasingly provided a basis for datafication of the national economy. With it came the entry of private IT firms and extractive processes which have gradually become the defining aspect of India's political economy with a preponderance of surveillance capital thriving in the absence of laws and regulations. The most evident case here is the use of biometric technology for developing a national identity database *Aadhaar*, particularly since 2016, when the Union government mandated its use for provisioning of welfare.[2]

What critics have so far overlooked is that digital interventions at the sub-national levels have perhaps an even greater implication, in particular for the issue of governance and accountability since it is at the state level that welfare rubber hits the ground. After all, *Aadhaar* and related innovations associated with the national government supported I-Spirit ecosystem, are largely oriented towards serving the interests of private businesses involved in its development, rather than the welfare related goals of the Union government. As Belorgey and Jaffrelot (2021) have argued, "it would not be an exaggeration to say that the first actor (businesses) used the second (state) to receive authorisation and the necessary help to successfully complete the Aadhaar (literally, the "foundation") project.'

However, at the sub-national and state level, the picture transforms given that local economies cannot match the economies of scale on which digital capitalism functions. Instead, most governance experiments require state intervention in developing in-house capacity and fuel for 'innovation hubs' which are in turned used by the governments to identify the most appropriate use of technology in enhancing welfare and delivering services.

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[2] "Aadhaar verdict | Supreme Court upholds validity of Aadhaar, sets conditions for use" *The Hindu,* September, 2018. https://www.thehindu.com/news/national/aadhaar-verdict-live-updates-supreme-court-to-decide-the-validity-of-aadhaar-scheme/article25044764.ece

Over the last decade, it could also be argued that while at the national level, the politics of digitalisation is driven towards surveillance capitalism, leading to a contention-based model of 'data state' (Khan 2021), at the sub-national level the digital push is often more closely tied to the process of governance reforms.

The recent pandemic has brought this gap into sharp focus, with several states resisting the push to link *Aadhaar*-based identification for welfare and instead, pushing to develop in-house state capacity, particularly in relation to the needs of the migrants who returned to their home states during the harsh lockdown imposed in the midst of a raging pandemic. In the context of the post-pandemic scenario, there is again a renewed push to reinstate the primary of such a singular governance model and build data pipelines that give the control to the Union government. At the federal level, for instance, the government has been promoting a unique National Health ID, [3] and has also backed several 'India stack' projects that claim to reform governance across domains including agriculture, labour and resource management. [4]

Most recently, the Union government is proposing to set up a completely centralised digital platform to combine the work of all its ministries, potentially opening domains such as infrastructure development that have are increasingly being managed by private interests. [5] But given its lack of capacity, such a top-down model of what the industry (and the World Bank) calls *Govtech*, [6] will continue to be trapped in the distrust and apathy cycle that affected *Aadhaar*, while private intermediaries develop architecture to simply serve their private goals rather than become competitive in the global markets. Largely driven by the priorities of the

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[3] M Sheriff Kaunain, "Explained: Unique Digital Health ID and you", *The India Express,* September, 2021. https://indianexpress.com/article/explained/ayushman-bharat-digital-mission-national-health-id-narendra-modi-7540456/

[4] Giriprakash K, "Getting India's digital frame to stack up", *BusinessLine The Hindu,* May, 2020. https://www.thehindubusinessline.com/blchangemakers/getting-indias-digital-frame-to-stack-up/article31020908.ece

[5] Sharma Aman, "The New India Stack: Modi's Gatishakti Brings 16 Depts to one Digital Platform for Better Synergy", *News18,* October, 2021 https://www.news18.com/news/india/narendra-modi-to-unveil-mega-gatishakti-master-plan-on-oct-13-big-digital-platform-ready-to-bring-together-projects-of-16-central-depts-till-2025-4303823.html
[6] https://www.worldbank.org/en/programs/govtech

Union government, several private firms now function as national level brokers for global
Internet firms like Google, linking citizens' data to surveillance capitalism since the former
are often unable to enter the governance domain laterally. These also include civic-minded
NGOs and voluntary networks which engage in helping large corporations run ground
operations, the *Saathi* program run by Google or the now-shelved 'Free Basic' model used by
Facebook, which relied on local intermediaries that have become essential to the Indian
variety of digital capitalism.[7]

However, below the federal level, we see a distinct terrain emerging which is more inclined
to use technology for governance related reforms. In a country where rights are increasingly
becoming compartmentalised and instrumentalised to serve a neoliberal orthodoxy that aims
to focus on efficiency (Prakash 2021), the role of historical and social institutions is perhaps
far more significant than the national government in terms of ensuring expansive ideal of
welfare and inclusion of marginalised groups and their participation in decision-making. At
the formal level, these institutions build party leadership and sustain unions, while at the
more informal levels they link the economy to the social and political currents in political
society. How these institutions respond to the national push towards surveillance capitalism,
becomes a key question for our research. It is critical to study their response since they hold
the key not only to revive the social contract that underpins the modern state but also
provides opportunities for societal learning and resolving contentions, in turn enhancing
state's capacity for coordination and public management of risks associated with
digitalisation.

Hence, as Union government ministries push towards datafication, it is important to analyse
how the historical institutions at the state-level are coping with it, particularly in terms of

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[7] https://about.google/values-in-action/internet-saathi/

strengthening principles of democratic governance. Can they enhance the civic muscle at the local level and support the investments necessary for building social support and introduce regulation for the protection of citizens' data from becoming fodder for private intermediaries. The focus on institutions helps more contextually about the challenges individuals and communities face in dealing with the state and help us take the discussion on digitalisation beyond the 'last mile' problems in access.[8]

Research design, selection of case studies and methodology

Using the framework developed earlier in the article, and the context of variations in historical institutions discussed above, we can now evaluate the impact of the digital push in governance across states in India. In designing the research, a key aspect to consider was the existing institutional framework in the state and level of resources available within the states. Some governments, typically those looking to shift gears in their economic strategy or states that have been carved out recently, are more likely to push digitalisation as a way to leapfrog in development. Others, states with legacy institutions might also have fewer incentives to switch or support the 'incubation' of new capabilities in the domain.

In most instances, governments everywhere try to do both, relying on existing institutions while also encouraging some degree of governance entrepreneurship depending on the realities of technology resources as well as available economic and cultural resources. What is important is to find out the extent to which the states under review here have, firstly, adopted strategies that are aimed at inclusion of marginalised groups and strengthening their voice online, not just in superficial efforts such as building fancy web interfaces but in

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[8] Sharma Lakshmee, Natarajan Sarayu, Udhayakumar Kanimozhi, "Last Mile Access Study: Building offline architectures to enable better access to the state" *Aapti Institute,* February, 2021 https://www.aapti.in/blog/last-mile-access-to-urban-governance

promising rights to digital inclusion and expanding access in a way that protects them through regulation.

Towards this, we selected two sets of a pair of states, each pair sharing similar historical institutions but one of them having high resources in the IT sector. Over the years, as a researcher, I have had the opportunity to visit Rajasthan, Telangana, Delhi and Karnataka, and engage with political advisors and bureaucrats contributing to the process of reforms in governance and digital innovations. In the course of this research, beginning with a survey of the political economies of these states to identify crucial issues, we then proceeded to question officials as well as non-governmental workers involved in implementing digital initiatives in these states. A bulk of the information in this report comes from the informal parleys I have had since 2013, when I first began studying digitalisation as a doctoral student.

In addition, for the post-Pandemic scenario, we also conducted a dozen interviews across the four states with senior advisors to the state government and these were conducted via phone, between August – September 2021. The questions we asked were open ended and based on the argument that we developed by reading state-wise reports on digital governance initiatives. Below we present empirical findings from both sources, including our review of the official reports tabled in state assemblies as well as social audits prepared by journalists and activists and secondary sources are cited throughout the report while primary data is cited as quotes without attribution since these interviews were conducted based on a promise of maintaining source anonymity and mostly used only for interpretative purpose.

I. States with stable party systems and economies
Rajasthan

Rajasthan may seem like an unlikely state to select when thinking about digital governance given the fact that the bulk of India's IT resources and businesses are based much further

south. However, there are reasons why the state is picked first, and it is the way in which the state has developed innovations in digital governance that offer very important lessons for using technology to enhance democratic accountability. It is in Rajasthan that we find today an extraordinary shift in the way the state encourages people to use online services not only to access welfare but also to hold state agencies accountable and raise their voices. Many of these innovations have been developed in the course of the pandemic and could become a benchmark in the years to come.

Consider the case of the public information website *Jan Soochna Portal* (jansoochna.rajasthan.go.in) and the *Jan Aadhar* scheme which were launched in 2019 and are now becoming the digital arm of the state.[9] Besides the fact that the state is opening up its agencies to be digitally monitored by the public, the portal also aims to integrate the internet closely with various welfare schemes and state officials are increasingly layering issues of access to the internet on top of existing institutions of welfare. In our research, we found a serious effort underway to also build capacity within the civil society through 'digital dialogue' between the key stakeholders, and involvement of public in decision-making about the nature of technologies being used and the interface developed for digital governance.

What explains these efforts and why has a state that is otherwise unlikely to compete in terms of attracting IT talent from southern states be interested in such projects. The primary reason, based on our research is the willingness of the political leadership to use digital space as a means to enhance the historical institutions that also made Rajasthan the first state to initiate a Right to Information for its citizens in the late 1990s. It is the legacy of that movement that is now being deployed to add digitalisation to existing welfare services, with the emphasis

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[9] As of writing of this article, the portal has more than 9.5 crore visitors which makes it the most visited public website in the state and perhaps any other such website in the country. The URL for it is https://jansoochna.rajasthan.gov.in/CMS/Aboutus

not only on IT but also the need to invest in in-house capacity to engage the citizens in public decision-making both in the use of digital technologies as well as in deployment.

In our interactions with those involved in envisaging the enhancing of in-house capacity, we found a great cordiality between the state's IT bureaucracy and members of the political class as well as the organised cadre from social movements such as those leading the RTI movement in the state. The latter are being provided with the opportunities to be heard and their suggestions taken on board by the former and it is largely due to these interactions that now promises to take the resource-poor state into an era of digital welfare. Over the last decade, beginning with diverse IT functionaries, today there is a unified department in-charge of all IT and communications needs within the state government, with a strength of more than 6000 officials and workers making it the largest such enterprise in any of the state. Along with formally employed workers, we also found many local volunteer networks also engaged in building the much-needed civic muscle required to make the digitalisation process more inclusive and responsive on the ground.

Moreover, besides social mediation in terms of protecting the citizens' voice from becoming subdued the state also has developed on-ground regulatory controls where volunteers provide a layer of protection for the citizens in the state that has one of the lowest education levels in the country. For instance, at the village level, access to the websites like *Jan Soochna* Portal is provided through the state recognised 'e-mitra' kiosks which are to function as a network providing both the connectivity as well as offering information and knowledge about the relevant welfare schemes, with rates for access to such information and service fixed by the state.

However, the critical factor here is the ability to sustain such networks without political bias and also ensure that local intermediaries do not begin to exploit customers for monetary

gains. This issue has been raised by the *Jan Soochna* Advisory Group, a dedicated body dedicated to ensuring the inclusion of citizens' voices and supported through DoIT&C. A provision to inclusion of local municipal level functionaries alongside ministry and state IT officials in the advisory group also embeds democratic accountability further in the decision-making. By bringing even the political society in the system, it is also possible that the process of social mediation and regulation will get stronger, and the state officials are now aiming to turn entrepreneurial ventures primarily for profit into *Jan Soochna kiosks* which would further institutionalise the basis for the active citizenship and accountable state.

Perhaps the most important challenge for Rajasthan, which became more evident during the Covid-19 phase, is for the political leadership to take ownership of the risks. So far, there are few efforts by the current government to develop a similar interest in institutionalising local employment programs for digital governance, such as the S*athin* program,[10] as it had done with the NREGA and to some extent with the *Aanganwadi* program. In small districts like Alwar, we found that many of the volunteers active in providing digital support were not yet permanent employees of the state as yet and in many cases, monies are instead spent on hardware, such as machines that promise to work as ATM for welfare news. This indicates that there are limits to what a resource-poor state can achieve, but a promise to link digital services as a domain for public employment could still provide a means to further institutionalise the mechanisms that have allowed the state to sail through the digital transition.

Karnataka

In comparison to Rajasthan, it is quite likely that the southern-Indian state of Karnataka would be quite well placed to push ahead in digital governance given that it is also home to

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[10] https://wcd.rajasthan.gov.in/content/wcd-cms/en_in/dwe-home-page/schemes-and-services/sathin.html

the IT capital of Bangalore. However, at the very onset one encounters a sharp distinction, such as the recent effort to introduce a similar web interface like the *Jan Soochna* portal in Rajasthan. If we compare the two, we find that the Kannada website *Mahiti Kanaja*, while developed in local language by the Department of Personnel Administration, remains largely unknown to the local IT administration let alone the internet users in the state. The website which seeks to become a 'one-stop-shop for all information related to the various welfare schemes of the government' remains obscure and the numbers of citizens using it can't match the statistics of the portal in Rajasthan.[11]

The fact that the state's capital Bangalore often draws comparison to the Silicon Valley in the US stands in sharp contrast to the realities on the ground as far as the provision for social support is concerned, let alone provision for protection from predatory intermediaries. A key issue is the absence of historical institutions which can link the political economy of the IT sector in the state, to the local context. At least since the early 2000s, this has meant that the growth of internet in the state has also been driven to cater to the outsourcing needs of the IT industry rather than the requirements of local users. While the state was amongst the first to start, with the launch of the Center for E-governance in 2003, the absence of institutions such as a Right to Information movement has meant that economic elites and the local IT firms remain cut off from the political society.

Moreover, with the rise of the *Hindutva* politics of ethnic identity the state is also an outlier in the Southern region where sub-nationalist and linguistic currents often bring greater cohesion in the political society and vibrant economic landscape. Such an approach has been taken up in the neighbouring region of Telangana and Andhra Pradesh, but in Karnataka, there is an absence of either a basic framework of inclusive governance with most

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[11] As of writing of this article, September 2021, the portal barely had any traffic, with just around 100,000 visits to the site. The URL for the website is https://mahitikanaja.karnataka.gov.in/

entrepreneurial, venture capital-driven businesses preferring to contribute to the national technology innovation ecosystem rather than invest in social mediation. As one consultant in the IT sector put it, social values only seem to matter when the profit motive is not adversely affected.

Perhaps the most obvious result of this gap in institutional linkages between the IT interests and political society became clearer during the Covid-19 phase with the launch of local surveillance-based applications by the state government to track and trace the pandemic. Driven largely by the private IT experts, it neither convinced citizens as being trustworthy nor did it appeal to the local bureaucracy with only the private businesses deploying the application without even protecting the basic details about potential Covid-19 patients.[12] Another remarkable aspect was that in spite of being home to several Big Tech and multinational IT corporations, the Covid-19 era interventions suffered constant technical glitches, with citizens' rights groups highlighting the opacity in the way the applications were developed with WhatsApp groups being formed by local IT sector to develop a new application with little regulatory oversight by the state government.[13]

As a consultant who has worked with the state government on implementing such schemes, told us, there is increasingly a fear among workers using these applications of being monitored and targeted. This is particularly true for the rural sectors, and there is a possibility of contentions arising if citizens data is converted into market-driven models. As a consultant involved in developing the projects argued, there are rising concerns about the creation of

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[12] Menezes Naveen, "Corona watch to check the spread", *Bangalore Mirror,* March, 2020. https://bangaloremirror.indiatimes.com/bangalore/others/corona-watch-to-check-the-spread/articleshow/74837052.cms

[13] Shenoy Jaideep, "Now an app for real-time monitoring of CAOVID-19 home quarantined people", *The Times of India,* March, 2020. https://timesofindia.indiatimes.com/city/mangaluru/now-an-app-for-real-time-monitoring-of-covid-19-home-quarantined-people/articleshow/74888551.cms

'correlatable' (sic) datasets, arguing that it could happen that when a farmer applies to avail loan schemes, their data is (also) shared with banks which then use it to sell them their products.

Besides the fact that marginalised groups are becoming wary of data-driven governance initiatives, efforts to institutionalise digital governance have put a question mark on the willingness of the state to make welfare more inclusive. Already, migrant and minority communities are being targeted through exclusionary data drives, most notoriously under the National Register for Citizens (NRC) where Karnataka was the only Southern Indian state to prepare to undertake such an exercise.[14] Moreover, the entire edifice of the state and its ability to regulate market forces is becoming a subject of growing public unrest with several IT firms being accused of relying on the surveillance capitalist model of governance.

II. States with changing economic and political stakes

Delhi

If Rajasthan and Karnataka both have had stable legacy institutions and economic strategies, the scenario remains distinct in states that have either been created more recently or have had an overhaul of their administrative and political systems. Amongst the latter is Delhi, technically it is a Union Territory that remains in an institutional limbo as far as getting statehood is concerned. In the former category falls Telangana which became an independent political entity after its separation from Andhra Pradesh in 2013. In both instances, these territories have formal state governments that have been led by new parties that promised to overhaul systems of governance and given their late arrival their chances of generating

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[14] "NRC in Karnataka, drive to identify illegal immigrants in UP", *Sabrang,* October, 2019
https://sabrangindia.in/article/nrc-karnataka-drive-identify-illegal-immigrants

radical reforms in governance via digitalisation seemed relatively better than those states which had legacy institutions.

Once again, the nature of resources varied, with Delhi late in starting the development of its domestic IT sector. However, over the last decade and particularly since 2015, when the Aam Aadmi Party (AAP) was elected, the promise of an overhaul in governance has remained largely unfulfilled with only superficial changes often introduced to enable the most well-off residents or as the local press calls them *Delhiites* to have an 'easier life'.[15] Since winning power on the corruption plank around which its core leadership organised and led a successful mass mobilisation since the early 2010s, the possibility of reforms has also seen the party take up and eventually drop the campaign for full-statehood with the capital continuing its career as a Union Territory as of writing of the report.[16]

How do we evaluate the impact on accountability then? To begin with, we can see that the effort to expand the coverage of welfare has not yet become a key priority under the digitalisation agenda, with AAP promising to challenge the *clientelistic* approach but unable to actually find an alternative leading to a surprising compromise even on the core demand for full-statehood. Another telling instance in the gap between the vision and execution is evident in the declining capacity of the welfare system to manage the needs of the city's marginalised communities, particularly it's migrant communities which had to pack and leave over the course of the Covid-19 pandemic as promise to deliver welfare via digital e-coupon to the working-class population fell short soon after it was launched in April, 2020.

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[15] "'NDMC311' mobile app to ease life of Delhiites" E*gov. Eletsonline,* March, 2016 https://egov.eletsonline.com/2016/03/ndmc-launches-mobile-app-ndmc311/

[16] Yadav Nicholas Puneet, "GNCTD Act: Centre Took Away All His Delhi Powers; But Why Is Kejriwal So Silent?", *Outlook,* April, 2021 https://www.outlookindia.com/website/story/opinion-gnctd-act-why-so-silent-mr-kejriwal/379069

In terms of enhancing social support for digitally accessing health facilities, once again the capital faltered as hospitals turned away patients for the want to identity documents. When a second wave of Covid-19 cases swept across the city, a majority of citizens could not even find information about beds and medical supplies even as the state tried to implement real-time information applications.[17] The fact remains that on-ground welfare needs of the citizens have not improved with a change in political regime, and parties like AAP have relied on promises of free water and electricity supply and even 'free Wi-Fi' when the elections are around the corner.[18]

There is as yet no digital single window or online application portfolio where citizens can access welfare services, nor are there plans to regulate private intermediaries to protect citizens who rely on private network providers to access government services. A populist promise to build a 'free Wi-Fi' network only made such regulation ever more unlikely (Khan and Ullah 2019), although eventually advisors to the state government could not even move this goal forward. We learnt that owing to public antipathy the government was left to fend for itself, in the process dropping the Wi-Fi project as layers of authorities and private interests pushed against any kind of reform.[19]

The populist stance has also led the leadership to avoid taking responsibility for failure, and Delhi continues to struggle to find avenues through which the government to direct the development of public facing technology development. That fact that the biggest IT hub in north-India is in Gurgaon which is also the city's suburb has made no difference. AAP remains a marginal force in the suburb and the rise of *Hindutva* politics in Haryana where it

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[17] Lalwani Vijayta, "Two weeks into the second wave in Delhi, patients continue to scramble for beds. Why?" *scroll.in* May, 2021. https://scroll.in/article/993766/two-weeks-into-the-second-wave-in-delhi-patients-continue-to-scramble-for-beds-why
[18] Lalchandani Neha, "Kejriwal: Vote for AAP, get free water and power", *The Times of India,* April, 2021. https://timesofindia.indiatimes.com/city/lucknow/kejriwal-vote-for-aap-get-free-water-power/articleshow/82056787.cms
[19] Jain Pankaj, "Signal drops on Kejriwal's free WiFi promise, AAP blames bureaucratic hurdles, logistical issues", *India Today,* May, 2018 https://www.indiatoday.in/india/story/signal-drops-on-kejriwal-s-free-wifi-promise-aap-blames-bureaucratic-hurdles-logistical-issues-1224490-2018-05-01

geographically located has not helped in addressing the gap that has emerged between the IT needs of the capital. Gurgaon remains politically, culturally and economically out of bounds of the Delhi's political and administrative system. In the last election, Delhi's dominant political face of AAP and its charismatic Chief Minister could not even campaign in the elections reflecting this institutional gap.[20]

In addition to the inability to forge a political consensus, Delhi is also struggling to remain a liberal, inclusive space for the diverse communities that have migrated and have added to the welfare burden on the state. The mass exodus of migrants during Covid-19 lockdown further added to the decline in the ability of the state to find a common vision or platform for dialogue. Efforts to institutionalise a digital channel between citizens, social groups and the state administration have increasingly become dependent on policing and surveillance, with the city replacing the southern Indian metropolis Hyderabad as having the second-highest number of CCTV cameras installed per square fit.[21]

Telangana

The last in our survey of states and their governance initiatives in light of ongoing digitalisation is Telangana, which presents a contrast to the Delhi model. Not only does it have a highly intensive model of IT deployment in governance but also a very high-risk version which nonetheless retains its appeal among the masses. What sets the state apart from Delhi, is not only the extent to which private capital investment from the IT hub of Hyderabad is deployed far beyond the city limits, but also in the way the political leadership has taken ownership of all initiatives. The contrast is important considering that both the

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[20] Pati Ipsita, "Arvind Kejriwal may not campaign for AAP's candidate in Haryana assembly elections", *Times of India, September, 2019.* https://timesofindia.indiatimes.com/city/gurgaon/kejriwal-may-not-campaign-for-aaps-candidates-in-haryana/articleshow/71283478.cms

[21] Sur Aihik, "Hyderabad second most surveilled city in world, beats New York, London" *The New Indian Express,* January, 2021 https://www.newindianexpress.com/cities/hyderabad/2021/jan/06/hyderabad-second-most-surveilled-city-in-world-beats-new-york-london-2246124.html

states have had a break in their institutional history and had ample resources to be able to invest them in developing welfare access, digital infrastructure as well as new regulations to jump start reforms in governance.

Like Delhi, Telangana had a chance to start all over again, in 2013, but in their case, the political leadership has since tried much more to embed in its digital economy within the local welfare state. The state also inherited Hyderabad's historical role as the capital of a major part of the Deccan region, so there was more scope for deploying IT resources and in the process re-establish the capital as a regional power hub. However, despite stellar growth in IT sector since the 1990s, poverty was rampant and marginalisation of communities continued alongside the rise of glistening IT hubs in and around the capital city. For instance, risks of deletion remain ever-present for the marginalised communities, not just in the rural areas but within the peripheries of Hyderabad (Gururani, Kennedy et al. 2020).

However, unlike Delhi, the state retains a strong undercurrent of cultural and social solidarity, with the movement of statehood bridging over existing divisions while engaging the citizens since the birth of the state. The robust set of historical institutions that emerged out of its long struggle for statehood is perhaps unique given that it was the first-ever state to be created bifurcating a linguistic unit (Tillin 2014). The pivot for this politics is the pro-statehood party Telangana Rajya Samiti (TRS) that benefitted politically from the success of the statehood movement has tried to use ownership in terms of shaping the discourse and practice of digital governance.

The results are reflected in the use of personal appeal by TRS leadership to promote IT strategies in governance both among the economic elites as well as in the wider political society. However, the terms under which the state is expanding its reach through IT, cannot be said to be liberal democratic in any way. Instead, the politics is closer to the legacy of

modernisation where IT has become only the latest phase in many innovations introduced over its history. Unlike the neighbouring state of Karnataka, where Bangalore has remained aloof from its hinterland, Hyderabad has revived its institutions to link it closer to the least developed districts of the state.

The T in its name has become a brand of sorts, used everywhere by the government, from ambitious infrastructure schemes such as T-fibre project to the state-support IT innovation T-Hub. This represents a contrasting vision from Delhi where there no equivalent D institutions as yet. Moreover, there is a high-investment strategy that aims to bind the geography of the region politically closer to the metropolis of Hyderabad, unlike the divide that exists between Delhi and its two IT suburbs of NOIDA and Gurgaon. The TRS has worked hard to revive older institutional linkages that once existed in the Nizam era Hyderabad state and has built a political settlement that isn't dependent on the coastal elites as was evident in the post-colonial era.

It is this return to history, rather than simply a vision of future, which allows the TRS to navigate the challenge of using IT in governance as a political strategy while incorporating existing projects envisioned by its rival Telegu sub-nationalist Telegu Desam Party (TDP) under its "T" branded initiatives. To back this new social contract, it falls back on the mass mobilisation in the political society that allows the state's leaders to manage emerging risks, with the consensus reflected in the ease with which the government has been able to introduce top-down reforms without much resistance from the ground. As one consultant working on digitalisation in Telangana told us, many of the local civil society members who were involved in the statehood movement have been brought within the ambit of governance reforms, including the use of digital technologies.

These formal and informal linkages allow the state to legitimise the IT investments over the years, while also containing 'informational politics' (Kennedy, Sood et al 2020) which could have become a hurdle in establishing trust in the digital systems. The new state factor is central here, trust in the digital regime will eventually be put to test when the next party takes power. On the one hand, the TRS leadership enjoys public goodwill and on the other hand, it has invested heavily in localising the IT ecosystem so as to build permanent interests in the emergent digital economy. As an IT advisor, himself a former activist associated with the statehood movement put it, the localisation of the IT infrastructure has also allowed the local government to bargain more effectively with the Union government hence using it as a means to achieve political goals. Like Rajasthan, the state has initiated *Jan Soochna* and *Jan Aadhaar* like projects while also utilising these innovations to expand its welfare schemes to new constituencies.[22]

Here, the ability to take ownership of risks by the political elites is important, particularly K T Rama Rao (popular known as KTR) who is the son of K Chandrashekhar Rao (popularly known as KCR) and also the state's IT development minister is pivotal. Together, the father and son are driving all major IT initiatives and, in the process, are linking the IT economy closer to the state. Sometimes this creates very high risks, such as their effort to link Aadhaar with local voter election rolls, potentially disenfranchising some of the weakest groups from democratic processes. On the other hand, their efforts to layer digitalisation on top of ongoing welfare programs, as is the case with the Rythu Bandhu scheme, has meant that digitalisation is no longer an elite agenda but of interest to farmers in the state.

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[22] The popular *meeseva* (at your service) portal provides a unified source for all welfare schemes. Details available here: https://www.telangana.gov.in/services/meeseva

With the launch of the T-folio, a single window for citizens to access welfare schemes online means that the state can also monitor individuals at an unprecedented level of granularity. Moreover, efforts to build a local digital economy means that the state has promoted often untested tech like facial recognition and drone-based mapping, promising to deploy it in governance as a first-customer for local start-ups. This adds yet more risk to the privacy of its citizens even as it is likely to be less exclusive than the biometric technologies used in *Aadhaar*.[23] Similarly, the effort to use drones to map its agricultural landscape and similar invasive technologies can be beneficial in making land transactions more transparent but it could easily slip into 24/7 surveillance.

This trend is also evident in the continuation of ideas like real-time governance, which incidentally was first institutionalised under a TDP-led government before the state had been come into existence.[24] More recently, the Real-Time Governance Society (RTGS) has partnered with MIT to evaluate the impact on levels of corruption in service delivery. The overall trend still reflects a top-down ownership model but new partnerships indicate that gradually there is shift towards not only efficiency but also strengthening of the state's bureaucratic apparatus as well as maturing of the political society with valuable outcomes in terms of enhancing democratic accountability in the state.[25]

Analysis: When and how institutions matter

This comparison across states shows that a shift in governance has indeed taken place, but it but while it has made the state more open, it has also allowed personal data of citizens into a

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[23] Reuters Report "Telangana tests facial recognition in local polls as privacy fears mount", *The Hindu*, January, 2020https://www.thehindu.com/sci-tech/technology/telangana-tests-facial-recognition-in-local-polls-as-privacy-fears-mount/article30623453.ece

[24] For details regarding the RTGS Act: https://www.rtgs.ap.gov.in/RFP_FieldOperationsFinalv4.0.pdf

[25] Maitreyi Melly M.L, "Most cheques are for less than ₹20,000: survey", *The Hindu*, June, 2018 https://www.thehindu.com/news/national/telangana/most-cheques-are-for-less-than-20000-survey/article24074179.ece

'fictitious commodity,' to use a Polanyian idea. However, unlike the model at the national level, where personal data from communication and networking platforms has served the expansion of surveillance capitalism, the story at sub-national levels is different. In contrast to the scenario of Big Tech dominated economy, in Indian states, digitalisation involves a host of local actors. Our findings are consistent with the idea that the state-led processes of data collection and digitalisation are giving rise to new varieties of digital capitalism but the emergent contentions surrounding even the traditional modes of collecting citizens' data at the national level (Khan 2021) aren't evident at the regional and state levels.

In India, what we find is that besides the federal model, there are more local, state-sponsored models involving a variety of intermediaries that act as a crucial channel for civic practice and activism. Here, we need to take account of the role of medium-size internet and telecom service providers as well as their local franchise providing internet access, both governmental organisations and NGOs which are involved in reviving the social contract as well as linking large Internet corporations, local economy and governance machinery. These also include local 'start-ups' and data brokers involved in local governance, with some states faring better in enhancing welfare through their social mediation, while others like Karnataka are more inclined towards building data pipelines for global firms down to the last mile.

Much like its political society, the political economy of digitalisation in India involves a range of public and private intermediaries who could be argued to be 'commodifying from below' what the Big Tech does from above. Moreover, rather than data extraction that drives the engines of surveillance capitalism, which has powered the rise of Google and Facebook worldwide, the scenario in India is more complex because the scope for welfare in many states is closely tied to the problem of exclusion on the basis of political considerations including the role of political parties as well as social movements. As a result, in a state like

Telangana, the use of biometric identification, drone-based surveys, machine learning-based models of decision-making and facial recognition systems are being rolled out without much debate, while welfare beneficiaries in Delhi are increasingly restive and see the use of CCTVs as part of the failure to reinstate a social contract across communities in the city.

Eventually, what we find is that the key to driving digitalisation and its impact on governance is not simply dependent on resources. The framework that emerges, leads us to consider two dimensions of digital governance, firstly, it matters how states regulate intermediaries but also provision for social support for inclusion and secondly, there is a divergence in how fat each state goes in resisting the national model while incubating local enterprise and regulating private intermediaries to protect the citizens from commodification of their voice. The following metric allows us to map these dimensions and identify the models of digital governance that have emerged across states.
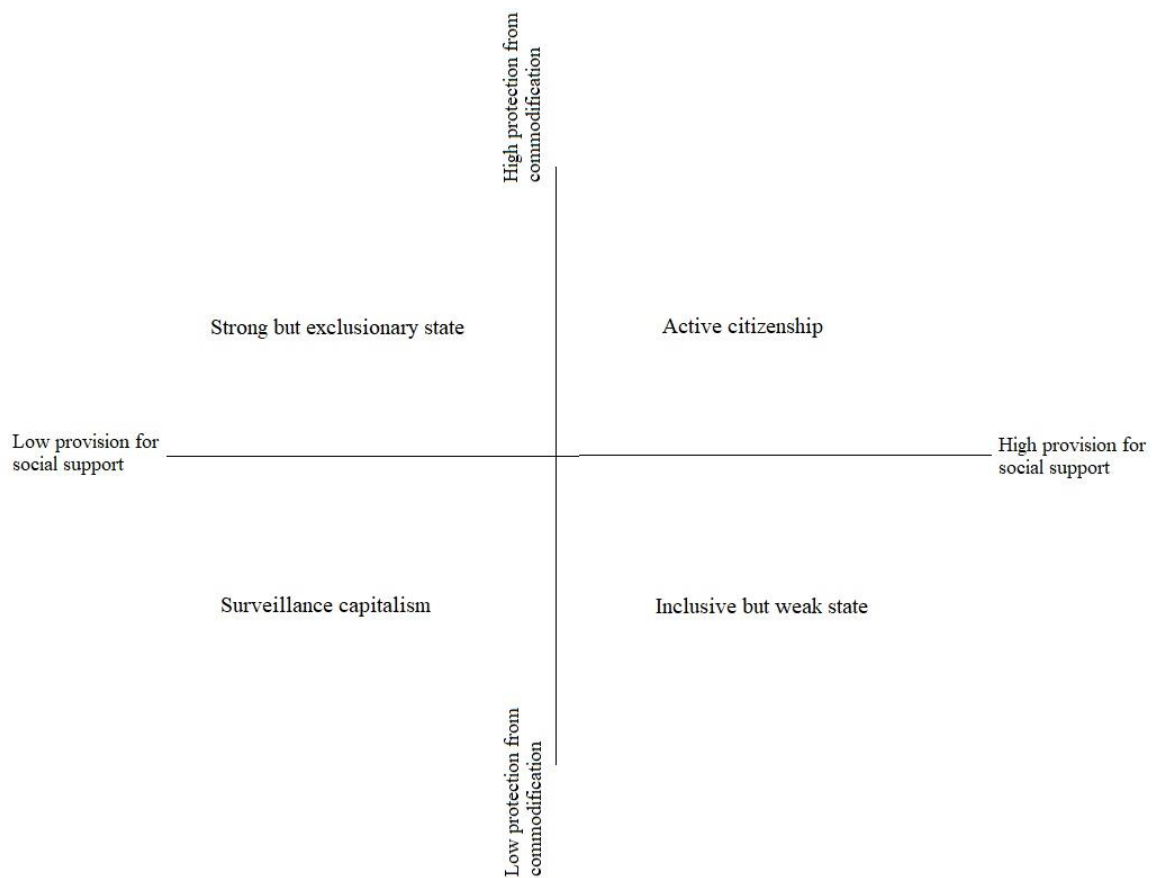
Such a framework is useful to map state-level governance models not only in terms of resource availability but in terms of being more (or less) inclusive and being able (or not) to manage high-risks that come with the commodification of personal data. Telangana's digitalisation program for instance, has a deeper penetration in society, but also high levels of commodification which will put the system to test in the coming years. In comparison to other states, particularly Delhi, so far it seems to have been more successful largely because there hasn't yet been a pushback by society. In contrast, as an advisor to the Delhi government's IT policy put it, the red tape within the administration proved too hard to cut for the AAP government. But it is in this very process, of creating political autonomy for IT development that TRS succeeded, not by disallowing politics but by creating opportunities to build stakes for itself and the political society at large.

Such a high-risk model can sometimes also lead to disastrous consequences as it happened recently wherein efforts to link voter ID with *Aadhaar* led to a deletion of several lac citizens.[26] But the TRS leadership has shown its ability to take ownership of such risks and engage quite systematically with local institutions, and resisting the temptation to simply use the national innovation system in domestic governance. In contrast, Karnataka clearly belongs to the quadrant of being less inclusive of marginalised populace given its export-oriented IT sector which dates back to the 1990s, and a weak state since it has not nurtured a local system that can resist the national commodifying model of surveillance capitalism.

Among all the states, Karnataka still has the best access to IT resources, but it is perhaps more likely to end up worse because of its weak institutions that allow private developers to run the show with little or no regulation. This happened in the case of Covid-19 tracking applications and would like to happen again in post-Pandemic in India. It is also important to note that the state has also witnessed a sharp turn towards hate-speech online,[27] and growing instances of moral policing by *Hindutva* vigilantes who monitor their targets online, indicate that the political society remains cut off from IT interests reflecting on the weakness in state level institutions or cohesive sub-nationalism which have led to distinct outcome in its neighbouring states like Telangana.

Perhaps the sunshine state here is Rajasthan, a resource-poor state which has endorsed demands of the local civil society and its political leadership and has invested capital in building local 'advisory groups' and supporting the grassroots workforce to support the inclusion of marginalised groups. It belongs to the quadrant that refers to active citizenship

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[26] Bhatnagar Vivek Gaurav, "Lakhs of Voters Deleted Without Proper Verification in Andhra, Telangana" *The Wire,* February, 2019 https://thewire.in/rights/lakhs-of-voters-deleted-without-proper-verification-in-andhra-telangana

[27] Local civic society groups have mobilised to resist the rise in hate speech in the state, but the government has yet to an active interest in regulation. For details: https://globalfreedomofexpression.columbia.edu/cases/campaign-against-hate-speech-v-state-of-karnataka/

model of digital governance, providing social support but unlike Telangana it doesn't yet have any larger than life figures dominating the ecosystem with local officials holding on to the reins of digitalisation. As yet, it also lacks any local IT economy or a T-brand equivalent as has happened in the newer states like Telangana, but with time this could also change. What matters is not the branding, but to stay the course of providing social support and protection of citizens' voice even as digitalisation becomes ever more important aspect in its governance vision.

Conclusion

In contrast to the national political economy of digitalisation, we find that local governments are actively enhancing social support and public infrastructure to support civic participation of the marginalised groups, some even promoting models that correspond with the active citizenship variety identified in the framework above. Quite often this involves appointing local and grassroots workers to support citizens to access not only the technology but also learn about welfare services. Alongside the role of social movements and political parties also matter, since it involves budgeting for in-house capacity enhancement as well as regulating private contractors who mediate in intricate ways in the welfare system.

In our review, we developed a model to evaluate these changes and examined processes that lead to the government agencies becoming sensitive about issues of exclusion and participation. Even in terms of their economic outlook, unlike the national picture, which increasingly is oriented towards the surveillance capitalist model, we developed alternative versions where local governments often encourage social mediation and aim to incubate in-house capacity to regulate private intermediaries. We focussed on the role of historical institutions and political leadership, and in future, we can further explore how grassroots level IT workers both within the state machinery as well as in local IT industry mediate

between the state and citizens across these states to better understand the challenges that will inevitably emerge in the post-pandemic era.

Bibliography

Alan Gelb, A. M. a. K. N., 2019. Digital Governance in Developing Countries: Beneficiary Experience and Perceptions of System Reform in Rajasthan, India. *Social Science Research Network,* January.

Archon Fung, D. W. a. M. G., 2007a. *Full disclosure : the perils and promise of transparency..* New York: Cambridge University Press.

Belorgey, N. and Jaffrelot, C. "Identifying 1.3 Billion Indians Biometrically", Hiedelberg Papers in South Asia Studies and Comparative Politics, 2021. Available online:

https://crossasia-journals.ub.uni-heidelberg.de/index.php/hdpapers/issue/view/978

Bartlett, J., 2017. *Governance By Dashboards: A Policy Paper.* London: Demos.

Eubanks, V., 2018. *Automating Inequality: How High-Tech Tools Profile, Police And Punish The Poor.* New York: St. Martin's Press.

Fung, A., 2007b. Democratic Theory and Political Science: A Pragmatic Method of Constructive Engagement. *American Political Science Review.*

Goodwin, G., 2018. Rethinking the Double Movement: Expanding the Frontiers of Polanyian Analysis in the Global South. *Development and Change.*

Gururani,S. and Kennedy, L. " The Co-production of Space, Politics and Subjectivities in India's Urban Peripheries", in Gururani, S., Kennedy, L. & Sood, A. (eds). *Engaging the Urban from the Periphery, Samaj:* 26:2021

Jaffrelot, C. (tr. Cynthia Schoch) 2021. *Modi's India: Hindu Nationalism and Rise of Ethnic Democracy*, Princeton University Press.

John S. DryZek, A. B. S. C. J. C., 2019. The crisis of democracy and the science of deliberation. *Science,* March.363(6432).

Kennedy, L. Sood, A. Chaudhury, D. Chitta, R. (2020) "Interrogating data justice on Hyderabad's urban frontier: information politics and the internal differentiation of vulnerable communities". in *Information, Communication and Society.*

Khan, A., 2021. Beyond consent: Surveillance capitalism and politics in the data state. *India Review,* 20(2), pp. 158-175.

Landemore, H., Bernholz, L. & Reich, R., 2021. Open Democracy and Digital Technologies. *Digital Technology and Democratic Theory.*

Lina Dencik, A. K., 2020. Datafication and the Welfare State. *Global Perspectives.*

Mann, M., 2020. Technological Politics of Automated Welfare Surveillance: Social (and Data) Justice through Critical Qualitative Inquiry. *Global Perspectives.*

Masiero, S. & Sakthy, S., 2020. Grappling with Aadhaar: Biometrics, Social Identity and the Indian State. *South Asia Multidisciplinary Academic Journal,* March.

Louise Tillin, 2014. *Remapping India: New States and Their Political Origins*. Oxford University Press, New Delhi.

Zuboff, S., 2019. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power.* London: Profile Books.