



## Broker bureaucracies: The subsidiary offices of the digitalizing state

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### ABSTRACT

Intermediaries play crucial roles in the implementation and functioning of the state in the transition towards digital governance. As a restructuring of networks, information flows, and territories – the digitalizing state implies the transition towards the digitalized interaction between the state and its residents, signaling a potential shift in the position of intermediaries in this process. Drawing on interviews with brokers and key informants in land administration and ethnographic observations in Nairobi, Guadalajara, and Mumbai, we explore the interplay between digital technologies, paper-based systems, typists, consultants, and citizens in the digitalizing state. This urges us to consider how digitalization, in many ways, goes against the novelty and excitement ascribed to the dynamics of modernizing and digitizing state governance. Paying attention to the geographies of information flows shows how digitalization unfolds in both the offices of the state as well as in subsidiary, hybrid spaces and through acts of brokerage. We argue that the paper-filled offices of the print shops and cybercafés are the sites where a potentially different range of alternative digital futures are exposed. Outside of the tropes of control, seamless connection, or the globalizing effect of digital technologies, these spaces give insight into the deeply institutionalized cultures and ways of organizing civil and political life in which digital technologies are introduced.

### 1. Introduction

Intermediaries play crucial roles in the implementation and functioning of the state infrastructures in the transition towards digital governance. As a restructuring of networks, information flows, and territories– the digitalizing state (Datta, 2022) implies the transition towards the digitalized interaction between the state and its residents. It is an emergent coming together of political, social, digital, and material infrastructures that work towards a neoliberal imaginary of seamless, efficient, and digitally mediated modes of governance. Yet, delving into the development of the digitalizing state at the urban scale, research has shown how digital information infrastructures often have fragmented foundations (Guma, 2020; Odendaal, 2023) and offer openings and opportunities for institutionalized and non-institutionalized actors to mediate the interaction between the state and citizens (Chaudhuri, 2019; Datta, 2022). In this paper, we argue that by observing the

activities of intermediaries within the digitalization of bureaucratic processes and land administration, it becomes increasingly clear that despite the efforts to automate their work, the digitalizing state heavily depends on the ‘subaltern’ spaces of labor, such as cybercafés, and occupations such as brokers, typists, and consultants, to maintain information flow and organize civil and political life.

In both governance theory and infrastructural studies, the conceptualization of the state as a networked relationship between government institutions and private sector and civil society actors has gained traction (Da Cruz & Rode, 2024; Easterling, 2016; Ramia et al., 2018). Specifically, as argued by Simone (2019) and Hasan (2024), the apparent homogeneity of the bureaucratic apparatus of the state, based on calculation and formalization, in reality, requires the labor of many actors, organizations, and networks to work. Governance emerges out of the diverse and shifting constellations of actors, ranging from ‘elite stakeholders’ and entrepreneurial groups to local governments,

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multilateral organizations, and citizens, making it increasingly difficult to draw the boundaries between ‘inside’ and ‘outside’ the network of actors involved strategic decision-making and governance (Côté-Roy & Moser, 2019; Da Cruz & Rode, 2024).

Against this background, we explore the social composition and structure of the network of relationships shaping the digital bureaucracies on the ground in Bhiwandi (India), Zapopan (Mexico), and Kajiado (Kenya). All three areas are located at the periphery of larger metropolitan regions, namely Mumbai, Guadalajara, and Nairobi, and are characterized by dynamic land use change and urbanization. In these three metropolitan regions, the digitalization of land and territory is happening on many levels and through various means – e.g., the installation of a GIS lab at the municipal urban planning department to the development of a national platform for the administration of all land transactions – yet all these efforts hinge on the collaboration between state institutions, private-sector actors and non-governmental organizations and negotiation over their sometimes competing interests (Hoefsloot & Gateri, 2024). The, at times, low institutional and technical capacity of land administrations, specifically at the regional level, makes it possible for private actors to override the influence of governments in the implementation of land reforms (Boone et al., 2019). In the process, the digitalizing state creates exemptions for various actors, particularly private consultants, and leaves the extraction and use of personal data open to an unstipulated and increasing number of actors (Pettas, 2024).

In light of these transitions, in this paper, we explore the role of intermediaries in the digitalizing state and analyze how they contribute to the production of alternative circuits for navigating the emerging digital infrastructures for land administration. We move beyond approaching land governance as an administrative issue and towards a more extended understanding of land governance as a highly political, ambiguous, and – in the context of Kenya, India, and Mexico – at times volatile sector that is characterized by the struggle over power between actors. We chose to focus on the mundane, daily practices of processing digital and paper documents in the land sector of administrations in the peripheries of metropolitan regions because this is where the sweeping ambitions of the digitalizing state hit the ground. The peripheral administrations of the cities we research are at once dealing with rapid and dynamic urban change – e.g., the urbanization of agricultural lands or, as illustrated in Bhiwandi, the mutual processes of de-industrialization and urban development (Datta, 2023) – as well as a lack of administrative power and capacities to implement digital technologies in a coherent and complete way. Hence, the peripheries are where the features of the digitalizing state are retrofitted with existing practices and institutional cultures and have deep effects on administration, livability, and social equity.

## 2. Intermediaries in the digitalizing state

Krigsholm et al. (2020) describe the transition between paper-based to digital land administration systems through the lens of socio-technical transitions, emphasizing the dynamics between structure and opportunity and the tensions that arise between the rigidity of rules and institutions versus the fluidity of interactions and technological push for change. Here, the deeper issue is red-tape bureaucracy. As Gupta (2012) argues, the procedures of bureaucracy produce arbitrary outcomes and indifference in the reactions of the state. He explains that below the highly rational and rule-following veneer of the state, we can see the contingent workings of bureaucracy, which highly depend on chance, willingness, relationships, and, in many cases, corruption, to get things done (Gupta, 2012). An important point to make here is that a lot of land issues are embroiled in red tape, not because of any nefarious intent, but because the reward structure in government agencies and the land market is not on the quality of the services provided but on the speed by which applications can be processed.

The optimistic, technocratic response to these challenges is that if we introduce a more efficient, straight-to-the-point and digitally mediated

workflow, these problems can be solved. This is largely based on the understanding that digital systems, as opposed to paper-based bureaucracies, are less prone to interference. Proposed interventions vary from GIS-based cadastres and digital modes of record-keeping, such as land information management systems (LIMS), to blockchain and AI-trained models for land and property management (Rodima-Taylor, 2021). However, as Ferreira et al. (2022) point out, while digital technologies facilitate the efficient processing of standardized routine tasks with predictable outcomes, they perform very poorly when confronted with procedural or ethical complexity where the outcome is not fixed.

Land administration, in general, but particularly in contexts where competing claims over land are prevalent, is laden with ambiguity, implicit or subjective meanings, and incomplete information. This translates into the digital technologies designed to govern land. Lengoiboni et al. (2019) illustrate how technological innovation in land administration across contexts has not only transformed the documentation and processing of land transactions but also introduced new actors and information flows beyond the traditional context. They argue that as people-to-land relationships are increasingly registered digitally, the highly institutionalized yet not necessarily formal rules within the land administration system that coordinate the activities between actors become fluid, opening up opportunities for intervention (Lengoiboni et al., 2019).

Seeking to analyze the complex interrelationships within the land administration sector and the opportunities and boundaries of digitalization, this paper offers a look at the role of intermediaries – or brokers – in the digitalization of land administration in the peripheries of metropolitan regions.

In ethnographies of the state and land administration, brokers feature as figures that bridge gaps between the state and citizens (Stovel & Shaw, 2012). Brokers have been a steady feature across geographies and times despite having no official nor customary role in the land transaction processes (Adam, 2014; Banerji, 2023; Cowan, 2021; Haxby, 2021; Ikejiofor, 2006; Nkurunziza, 2008). By mobilizing their knowledge of bureaucratic processes and establishing and maintaining relationships, brokers are able to connect the disparate worlds of usually marginalized citizens and the state (Koster & Van Leynseele, 2018). Specifically in sectors that are fragmented and opaque, brokers feature as informal agents, coordinators, or translators for citizens to access the state (Koster & Van Leynseele, 2018). Berenschot and Bagchi (2020) talk about the different forms that brokered citizen-state interactions take by comparing practices of brokerage in the Indian states of Bihar and Gujarat. They argue how the effectiveness of brokerage networks varies significantly across the Indian states, with the weakly institutionalized states relying on these informal broker networks for expanding democratic access and enforcing an ‘informal democratization’ and political accountability.

Easterling stretches the concept of the broker, which traditionally focuses on the individuals doing the on-the-ground legwork, to include activists and private sector actors operating on high-scale governance. Due to the lethargy of the paper-based bureaucratic state, subaltern strategies based on patronage relations are sustained (Ghertner, 2017). These ‘unorthodox auxiliaries,’ as Easterling (2016) writes, ‘soften up the ground and offer a better chance of success’. Banerji (2024) adds how the allegiance of brokers switches as they ‘sometimes serve the community and at other times the interest of capital’ (p.41). Following Ghertner (2017) and Chatterjee (2004), we do not approach these interventions as violations necessarily, although they are often against the spirit of the law. Instead, we approach them as practices of navigating and operating within the paralegal realms of state and bureaucracy, between formal and informal, not legal nor illegal, and generally normalized, sometimes even celebrated (Chatterjee, 2004).

Hence, brokerage emerges out of the dual processes of the state exteriorizing people from its bureaucratic apparatus of calculation and formalization, as well as a deep relationality and pragmatism from people to work with the system. It is not merely a response to

bureaucratic inefficiencies but is embedded in the bureaucratic fabric, shaping the everyday interactions between citizens and the state. It would be a basic error to search for an essence, or single definition, of something as adaptive, heterogeneous, and continuous as brokerage. Berenschot (2019, p. 212) observes that “brokers can be local elites such as religious leaders, community elders or local businessmen, whose status and effectiveness as a broker stems from various forms of cultural capital.” Therefore, brokerage here is used in its lexically expansive form that encompasses a wide range of meanings, practices, institutions, and actors. Their repertoire of techniques, from gift-giving to distraction to compliance, might be nonconformist but effective and cannot be isolated from the larger constellation in which they operate.

### 3. Brokerage and digitalization in India, Kenya, and Mexico

In all three case studies – India, Kenya, and Mexico – brokerage operates within a framework of institutionalized informality and corruption, characterized by a specific vocabulary for both the practices of brokerage and the brokers themselves. In India, and specifically in the state of Maharashtra, where we conducted our research, the Maharashtra term “Māndavli” refers to the acts of interjecting, interfacing, and interpreting dense bureaucratic processes for citizens within the interstitial spaces of the state (Banerji, 2023). This form of mediation is deeply ingrained in the governance and bureaucratic culture. It encompasses a wide range of activities, from downloading and printing official documents for citizens to negotiating land deals, underscoring the pervasive nature of informal patronage networks in bureaucratic processes.

Wilkinson (2014) discusses how the entrenchment of clientelist politics in post-independent India has facilitated the proliferation of mediators within everyday bureaucracy. As multiple marginalities overlap, citizens rely on intermediaries such as brokers to navigate complex bureaucratic pathways (Chaudhuri, 2019). These experiences are influenced by identity and demographic categories such as caste, gender, ethnicity, class, and marital status. Ansari and Chambers (2022) highlight through ethnographic research in Saharanpur how gendered distinctions shape the lived experiences of the “everyday state” within the shifting imaginaries of the nation. The current socio-political milieu, with its emphasis on a masculine national imaginary rooted in Hindu mythological thought, profoundly affects the gendered and religious ‘others’ and their access to the state.

In Kenya’s land sector, intermediaries are commonly referred to as ‘land brokers,’ although they prefer the term ‘land agents,’ signifying an attempt to rebrand their image and position within the sector. These land agents play a crucial role in facilitating land transactions in both rural and urban areas. Their motivations range from income generation to influencing local politics, leveraging their extensive knowledge of land market dynamics (Andreassen & Moller-Jensen, 2016; Nkurunziza, 2008). In peripheral counties like Kajiado, land agents mediate transactions involving group ranches, exploiting local communities’ low literacy levels and the landholders’ greed (Rutten & Mwangi, 2016). The challenges in land administration are exacerbated by vested political and economic interests, making land governance largely ineffective and unresponsive to the dynamic needs of Kenyans (Bassett, 2020).

In Mexico, intermediaries, also known as ‘gestores’ or, in a pejorative way, ‘coyotes,’ navigate the complex and often overwhelmed bureaucratic institutions on behalf of citizens who pay for their services. Gestores perform various functions, acting as mediators between people and government institutions and occasionally as market gatekeepers. They facilitate access to social benefits and expedite bureaucratic procedures, saving citizens time and effort navigating institutional processes (Rizzo, 2020). Gestores also engage in illegal transactions, circumventing taxes and regulations to offer better prices than official channels (Forero & Redclift, 2006; Keys, 2005). Their significant societal and political power enables them to control popular support, negotiate with government agencies, and strengthen political influence (De La Peña, 1993).

Yet, while brokers are key figures in the bureaucracies of land administration in Kenya, India, and Mexico, they are not part of the imagined digitalizing state. All three states increasingly use digital information infrastructures to provide, expand, and reform government services. Importantly, they seek to digitize the ‘bureaucratic encounter’ by replacing face-to-face contact with virtual interaction (Buffat, 2015). In the land and urban planning departments of the three cases we are researching, the technologies being implemented focus on the digitalization of land administration and building application management. Although these digital systems are deployed by local administrations, they are often guided by national policies.

In India, the National E-Governance Plan 2.0 - which extends and expands the first E-Governance Plan launched in 2006 - drives the digitalization of bureaucracy (Parkar & Lama, 2023). In Bhiwandi, this policy framework has led the municipal corporation to introduce a Building Plan Management System to digitize the building permission processes. At the state level, the Government of Maharashtra has been making strides towards governance platforms, such as the MahaBhumi portal, which provides digitally signed records of land rights, property documents, and other digital services, such as online mutations and access to scanned property maps.

Also, in Kenya, the digitalization of land administration occurs on both national and county levels. Nationally, the State Department of Lands and Physical Planning is rolling out the National and Information Management System, known as Ardhi Sasa. While currently operational in Nairobi and Murang’a counties, the goal is to expand it into a national system for the digital registration of land ownership and transactions (Hoefsloot & Gateri, 2024). At the county level, Kajiado County has its own digital systems for land administration and building application management: the Kajiado Land Information Management System and the Kajiado e-Development Management Systems.

Similarly, in Mexico, there is a dual movement towards the digitalization of land administration and application procedures. Yet, while the digitalization efforts in the Mumbai and Nairobi metropolitan regions have concentrated on building applications in the Guadalajara metropolitan region, the government has been working with Visor Urbano, a state-led platform, to digitalize business license applications. Additionally, the state of Jalisco has implemented a citizen-facing digital platform that facilitates the online application for land use change permits and authorizations for the use of public space.

Placing attempts towards digitalizing bureaucracy such as those in India, Kenya, and Mexico in a historical context, Hasan (2023) argues how the digitalization of land records has to be seen as the latest bureaucratic reform aiming to curb corruption in lower administrative layers. Drawing on research in India, he writes how digital systems aim to replace the ‘elaborate procedures of accountability’ that have been introduced since the colonial period without much success (Hasan, 2023, p. 332). In what Hasan refers to as the ‘subaltern bureaucracy’ – putting emphasis on how these administrative relations are ‘subordinated but never fully subsumed’ (Cowan, 2022, p. 19) by top-down governmental logic – the flow of information continues to depend on the labor of citizens. The work of citizens in entering, cleaning, and tracing data through the bureaucratic system is, on the one hand, necessary to close time and service gaps, and on the other hand, it helps justify further investments in digitalization efforts (Hasan, 2024).

However, while information infrastructures have risen over the past few years, a proportion of ‘low-resolution citizens’ (Singh & Jackson, 2021) and ‘informational peripheries’ (Datta, 2023) – that is, those who do not utilize digital technologies to contact the state nor are visible in the state’s many databases and the places that are not represented in the digital information of the state – have lagged behind, excluded from the states digital technologies (Hoefsloot et al., 2022). As we will describe, brokerage fills this gap. As intermediaries, brokers hold a crucial role in the circulation of information regarding the ownership, legal status, customary rights, and value of the land (Ikejiofor, 2006) and provide face-to-face interaction in an increasingly online relationship between

the state and citizens.

#### 4. Methodology

This research has been conducted as part of a larger, five-year project titled ‘Regional Futures,’ which examines the digitalization of land administration within the metropolitan peripheries of Mumbai, Nairobi, and Guadalajara. Within this broader context, we are extracting one dynamic – that of the broker – out of the multiple empirical realities within the ensemble of citizens, authorities, bureaucratic practices, and financial flows that structure digital land administration. In extracting this one dynamic, we want to map out the complex relations that make this assemble. We follow the processing of land data to see how the information flows through different devices, geographies, and people (Liu, 2024). Untangling these flows in each of the cities we research and laying them side by side shows us what brokers actually do within the digitalizing state and points to the tangible, stable, elusive, and unstable ways they move within the data infrastructure and make that data move.

The brokers we describe in this paper go by many names: agents, freelancers, land brokers, agrarian advisors, peritos, coyotes, and consultants. Inherent to their role within the network, their names and ‘job descriptions’ are adaptive and malleable in time and space. As Banerji (2024) describes, due to the elusive nature of their work, brokers are inherently difficult to pin down and have a recorded conversation with. While they are spoken much about, and we often ran into them hanging around the spaces of fieldwork, it proved difficult to record their voices. Yet, similar to Banerji’s (2024) strategy of ‘following the fixer,’ in our attempts to trace the broker, we learned about the spaces and infrastructures used for brokerage, such as the print shop, cybercafé, waiting room, or queue. This prompted us to look at the broader picture, the network of ‘subaltern’ bureaucratic processes and spaces, rather than the individual of the broker, to understand the dynamics of the digitalization of land administration in Bhiwandi, Zapopan, and Kajiado.

The case comparisons we make across the cities and cases are not about coming to a hard definition of a broker within the digitalizing state but rather highlighting a shared experience and image of what brokerage means and does within day-to-day digitalizing and bureaucratic land governance. By combining insights from Zapopan, Bhiwandi, and Kajiado, we illustrate how the position intermediaries occupy in the digitalizing state is not particular to one context but similar in different cases and different geographies. In doing so, we hope to contribute to ‘develop theory in between what is true to all cities and what is true to a city at a given point in time’ (Nijman, 2007, p. 1). As Robinson (2022) writes, starting from the context rather than the theory, comparisons serve as a space and imagination that generates ideas that can float around and land in different spaces.

The arguments in the paper are based on 45 semi-structured interviews and two focus group discussions conducted between April 2023 and June 2024 with brokers, regional government officials, private sector land actors, and civil society (see Table 1). In these interviews, we either directly enquired about the role of brokers within land administration or we asked to describe the processes of digitalization within regional governance. Additionally, we conducted two focus groups with brokers in Nairobi, specifically zooming into the future challenges and opportunities for brokers within the digitalizing land administration system. The interviews and focus groups were led by the researchers based in Nairobi, Mumbai, and Guadalajara, with support from the London-based researcher. The audio files have been transcribed, translated, and thematically analyzed. Research participants were approached through professional networks, snowballing, and tracing the flow of documents and information within land administration.

In addition to the interview and focus group data, we conducted ethnographic observations in the spaces in which brokers operate. This includes formal bureaucratic spaces, as well as the informalized extensions of the bureaucratic system – the cyber cafes and print shops – where

**Table 1**  
fieldwork overview per case study region.

Data	Nairobi	Guadalajara	Mumbai
Interviews – brokers	4	5	7
Interviews – private and public sector	12	9	2
Interviews – community actors	–	3	3
Focus groups	2	–	–
Observations	Cyber café and County government lands, physical planning, and administration offices.	Print shop, ‘asesoria agraria’, municipal land and planning offices, and the registration desk of the Indigenous Community of Mesquitan.	Print shop, typists, and the municipal corporation land and planning offices

brokers recruit, or are recruited by, clients and execute much of their tasks. The observations were recorded in field notes.

Researching the role of individuals balancing on the border between legal and illegal, formal and informal, requires reflection regarding our responsibility as researchers approaching intermediaries, unpacking these networks, and reporting on their work without doing harm or inadvertently legitimizing illicit practices. This involved rigorous consent processes, safeguarding anonymity, and often off-the-record interactions. Additionally, for the authors conducting the fieldwork, this required working through contradictions such as not being able to ask directly about illicit practices while it is openly discussed at a generic level and navigating the tensions between being perceived as too much of an outsider due to language or ethnic differences, or too much of an insider due to perceived relationships with formal institutions.

## 5. Results

### 5.1. Navigating digital bureaucracy

During one of his fieldwork visits to Kajiado County, Dennis found himself sitting in a cybercafé (Fig. 1) outside the National Government compound in an area popularly known as Kwa DC. The name, meaning “DC’s place,” originated from the former District Commissioner’s office located there. An excerpt from his field notes details how, sitting in the cybercafé and observing the foot traffic of clients, brokers, and officials walking in to print, scan, type, and copy their paper documents, he came to realize the importance of paying attention to the flow of information outside the offices of the state:

When the customer line dwindled, I struck up a conversation with the cybercafe owner about the different services offered. It was during this discussion that I discovered a digital information network I had not previously considered in which the cybercafé and the broker are critical nodes. This network operates as follows. Brokers receive relevant land and personal documents from their clients or the land professionals representing them, typically via WhatsApp. The broker reviews the documents to ensure all required items are included. If any documents are missing, the broker contacts the client to request them. Once all documents are received, the broker sends them to the cybercafe operator via WhatsApp.

The cybercafé operator then downloads the documents onto her phone and forwards them to her email, from which she downloads them to the computer. In some cases, she may use a USB cable to transfer the documents directly from the phone. The operator may also edit the documents before printing them. Once the documents are printed, they are handed back to the broker, who then lodges



Fig. 1. Interior of a cybercafé in Kajiado. Photo taken by Fenna Imara Hoefsloot.

them with the relevant national or county government office for further processing. The cybercafé also keeps an old-fashioned mechanical typewriter as a fall-back system so they can continue with most of their work in case of an electricity or internet cut.

This process represents an alternative hybrid information infrastructure that often goes unnoticed when discussing the digitalization of land administration from the state's perspective, particularly in urban peripheries like Kajiado County. (Fieldnotes Dennis Mbugua Muthama, April 2023)

It was this moment of insight into a parallel network and flow of information that sparked our interest in the spaces and actors outside of the state and their role in digitalizing bureaucracies. Having observed this network in Kajiado, it soon became apparent how also in Bhiwandi and Zapopan, the copy and print shops and the typist's offices outside of the municipal governments are key in understanding flows of information and the operation of the digitalizing state. These shops serve as spaces where people access services like document printing, scanning, and online information search related to their applications. When

additional assistance or advice is needed, land agents, consultants, or freelancers - equipped with leaflets and posters providing guidance on the required documents for various procedures - step in to guide individuals through the process. The excerpt from [Author 3]' field notes points to three important elements we will unpack in this section: the spaces of de-facto digitalization, the role of brokerage in the speed and transparency of information flows, and the adaptive capacity of brokerage while facing systemic change due to digitalization.

## 5.2. De-facto digitalization beyond the state

In all three case study areas, in the evolving landscape of land administration and permit applications, digital platforms are reshaping the nature of face-to-face interactions between citizens and government officials. The implementation of these technologies means that many processes, such as registering land transactions or applying for building permits, can now be completed with minimal or no direct human interaction. Routine tasks like providing information on required documents, accessing ownership data, updating official records, and

generating standardized reports are increasingly managed by digital systems. Within the digitalizing state, these software systems are taking up the space that brokers previously occupied.

Despite the aspirational nature of the digital state and its aims to curb corruption by minimizing personal interactions, subsidiary spaces of digitalization and brokerage remain important. The de-facto digitalization of state functions often unfolds in everyday settings like print shops, leveraging mundane infrastructures such as WhatsApp, copying, and typing digital forms. Despite the formal digital transformation initiatives, these local spaces play a critical role in bridging the gap between citizens and the state's digital systems.

In places like Kajiado, land agents frequently operate out of print shops or cyber cafes located near county and national government offices. These modest setups become pivotal nodes in the digital landscape, facilitating a range of bureaucratic processes. Similarly, in Zapopan, agrarian consultants are strategically situated across from the national land registry, attracting clients in need of last-minute assistance or access to information. Brokers, who are well-versed in the workings of both the digital and bureaucratic systems, play a crucial role in this

process. They often coordinate everything for their clients, from the verification of land transactions to property mutations in case of death. They assist in anything from accessing digital documents, typing contracts, and filling in online forms to occupying the often-long queues outside government offices where they manage the space and task division by setting up benches or chairs to hold their place while they multitask—chatting, making copies, or updating clients. Insider knowledge in these processes is key, as illustrated by the experience of Pedro, who we met outside the state offices and now uses his experience from working for various administrative departments to ‘complement’ the work of the government:

Pedro (name changed) is a licensed lawyer who previously worked within public sector land registration sector. When working for government, he was involved in the regularisation of land tenure and the registration of agrarian land. Additionally, Pedro served as a legislative advisor for the state.

In our conversation, Pedro explained that when he ended his employment with the agrarian land registry 22 years ago, he had the



Fig. 2. Typist or xerox shop in Bhiwandi. Photo taken by Fenna Imara Hoefsloot.

intention of establishing a law firm to address agrarian issues as a litigator. He set up shop right outside the offices of the land registry, but when he noticed how people coming to register their land needed support in filing applications, he pivoted and started a copy shop business, eventually assembling a team of six, including two lawyers and two law students.

In addition to providing copying services, his business offers advisory services to clients who require them for two main reasons: the time it takes to complete the formalities and the certainty that the procedure will be completed. He attributes the lengthy queues and the considerable time required to complete a procedure to several factors, primarily the impact of the pandemic, but also the lack of personnel in government offices and the outdated technology used by the institution. All this means that the land registry cannot do its job properly and that citizens need external advice, such as that provided in the copy shop. He estimates that more than 90 % of users need some kind of advice.

(Fieldnotes José de Jesús Flores Durán, August 2024)

In Bhiwandi, in addition to the print shops, in the neighborhood where the government offices are located, such as the civil and land registration departments, you will find small typist offices dotted around. These offices - referred to as typists or xerox shops - are often equipped with a single desk and computer with internet access, advertise their services on the banners outside the shop, listing the long list of documents they can provide, such as ration cards, affidavits, sale deeds or tenancy agreements (Fig. 2). These documents, often fill-in forms according to a standard format, are typed digitally for citizens who either do not have access to a computer, are not fully literate, or simply need help with writing and filling in these documents. Importantly, in a community consisting primarily of people with a migration background, arriving in Bhiwandi from other states in India, these typists also help with translating from different languages to Marathi.

In one of these 'typists,' we spoke with a young woman. She explained that she had worked in a photocopy shop before but left after a dispute with the owner and set up her own business. Despite being illiterate, she ran a modest business printing documents for residents and directing them to the right person for further processing, forwarding the documents on WhatsApp. She is part of a vast network of intermediaries - lawyers, notaries, brokers, and clients - with different capabilities and access to the state. While her services are restricted to the initial printing of documents, she is able to connect her clients to another intermediary who is better able to help them prepare their case files and help them point to a hierarchization among the actor networks based on their proximity - perceived or real - to the state. When we asked if being unable to write and read complicated her work in running a 'typist,' she said it was divine intervention, and no client had ever walked away sad from her services.

Citizens rely on these facilities to access state services online, especially when they lack the necessary technology or digital literacy at home. WhatsApp and email are often used to share documents, updates, and instructions between clients and brokers. This informal use of digital tools complements the official digital systems, ensuring that paperwork is filled in to be submitted formally at a later stage. Yet, in the end, all information returns to paper. In Zapopan, a broker explained how, in her view, the digital system is sound in its objectives to streamline the land administration processes, but it is still not possible to completely eliminate in-person interactions and paper-based transaction documents. For example, how do you tell someone a computer will issue your title? Who is going to sign it online? She argued that people want to see progress, not just a computer outcome. This was repeated in Kajiado, where brokers emphasized the importance of having someone on the ground.

*"Land transactions are procedural, you go procedure by procedure, and you cannot skip any procedure. Hence the need for a person on the ground to do this legwork."* (NA230203I203S).

Zooming out, this gives insight into the geographies of information flows. The print shops are hubs where different paper and digital flows of information come together or are translated into another format. They are also places where information is temporally, and often vulnerably, stored. When asking a broker in Bhiwandi what they did with the personal and professional documents that were sent for printing, they said:

*"we basically do not keep the data, we basically ignore it because once the print is done, it is done. I am not going to do anything with that. It doesn't matter for me. Once the print is done, it's done."* (MU230929I008).

When prompted a bit further, asking what would happen if there was a data breach or the print shop account was hacked, the owner simply replied: "Google takes care of it. It does." Nevertheless, despite the trust in large corporations, digitalization through these spaces, such as cybercafés and print shops, creates a very porous system. The consequence of this is a risk that it might fall into the wrong hands, or the data may be lost in its entirety. It is more susceptible to manipulation outside the official systems. If data is so easily accessible, it lends credence to the accusations that it can be manipulated.

While generally not discussed in the literature regarding the infrastructure and materiality of the digitalizing state, these print shops, cyber cafes, and platforms like WhatsApp emerge as central nodes in the emerging digital information flows. They facilitate the digital transition, ensuring that state functions remain accessible to all citizens. These mundane infrastructures, supported by brokers and common-skilled digital workers, enable a more accessible integration of digital technologies into a largely paper-based system, reflecting a pragmatic approach to digitalization in bureaucratic contexts. Their services are extra-legal but tolerated since state officials recognize them as the only way many people can navigate and access the state. Government officials themselves may refer citizens to the cybercafe to obtain documents and information.

### 5.3. The shifting importance of face-to-face interactions in a platformed bureaucracy

Sameera (name changed) used to be affiliated with a local political party. As a grassroots worker, she regularly interacted with local state officials and bureaucrats, gradually learning the intricacies of the bureaucracy. Leveraging this experience, Sameera now functions as an agent, helping residents of Bhiwandi secure identity and residency documents. Sameera typically arrives early at the tehsil land records office. Multiple state bureaucracies operate within this compound, and the open space is often used by citizens, with children frequently playing cricket there. The brokers generally congregate around a vendor selling flavoured soda, being his regular customers (see Fig. 3). This is where Sameera, along with other brokers, waits for clients. Although the state offices open at 10 AM, they only start functioning around 11 AM.

Sameera's interactions with clients are brief. Clients either call to schedule a meeting, or she finds them outside the state bureaucracies. Once a client approaches her, they negotiate a price, she assists in filling out the form, aids with submission, and the transaction is complete. Illiterate, Sameera relies on another broker to fill out forms for her. They split the nominal fee of INR 10–20 (0.094 GBP - 0.19 GBP). On an average day, she earns around INR 200–300 (roughly 2–3 GBP), but today, she has only managed to process two application forms. The ongoing Indian Parliamentary elections have pulled government officials away for election duty, halting most official work and impacting their income.

Notably, she is one of the few women in this role. Comfortable among her male counterparts, Sameera exchanges crude jokes with them and embraces the term "dalaal," a pejorative for brokers in India. She is highly aware of the unique position she occupies and embraces it without hesitation. Unfazed by the prospect of a digital

future, she believes that in-person paperwork will always be necessary.

(Fieldnotes Neha Gupta, May 2024)

Sameera's use of the pejorative 'dalaal' to describe her work, points to the openness and visibility of brokerage within the larger system. Although it is generally acknowledged that their activities often walk the line between legal and illegal, they are regarded as small players in a larger corrupt system. In traditional and digital bureaucracies, brokers exploit the confusion and inefficiencies in the system, sometimes manipulating records, evading mandatory fees, or using political sway to grant favors, as noted by various interviewees. Yet, as Sameera's story illustrates, she is highly integrated into the wider bureaucratic and political system, using her network within the state from being a political party grassroots worker and connections with other brokers, she has strategically positioned herself on the stoop of the government offices. Serving as an informal interface, she makes the often-convoluted bureaucratic processes more accessible and understandable for the average person, bridging the gap left by the impersonal nature of bureaucratic or digital systems.

The brokers themselves argued their role is to provide a service to meet people's needs, not only in terms of guidance but also in terms of time. The bureaucratic systems they interact can be complex and time-consuming, requiring significant effort to collect the necessary documents from different offices and complete paperwork. Queues can be slow-moving and frustrating, often serving no purpose as users are unable to enter or complete their procedure. They may have to go back and forth between offices to check in on the progress of an application or even spend the night trying to secure a place at the front of the queue.

One broker interviewed explained the importance of speed for customers:

*"Because see if an engineer if he is giving you a responsibility to print, it is not just a print, it is his time."* (MU2309291008).

However, perhaps most significantly, they speed up document processing through their networks and personal relationships with state officials. Maintaining friendly relationships or 'sweet-talking' officials allows for a jump in the queue and expedites the processing of application documents or can get you access to documents that would otherwise be difficult to obtain. In Zapopan, the owner of a print shop explained:

*"They have given it to me digitally, but because there is a certain friendship. I mean, even, I tell them, you know what? I need the plan, something like that. I only have it digital, does it work for you? Yes. They give it to me digitally, and I print it"* (GU2304271015).

The brokers we conversed with themselves often highlighted the morality of their work, emphasizing that they 'act in good faith' (GU2304271014), the importance of trust in their field of work, or mentioning their responsibility as people of faith. In Bhiwandi, a broker described his work as serving a higher purpose. Addressing the challenges in this work, he stated that the most important thing was making sure that the job got done despite the difficulty of obtaining all the right documents. He highlighted his commitment to pro-bono work for disadvantaged individuals and religious institutions, stating:

*"If a poor person comes to me, then I do the work for free. I don't charge a fee. [...] If it is the work for a Masjid, Dargah, Mandir, Kabrastan, Darastan [names of religious shrines], I work free of charge. If I have to*



Fig. 3. The shed outside the Tehsil Land Records Office where brokers wait for clients. Photo taken by Neha Gupta.



access documents and pay a fee out of my own pocket, I do not refuse. I do this because if I make money on this, then there is nothing! I have to answer to a higher power!” (MU230702I001).

Nevertheless, also, within the wider group of what we have now categorized as brokers, there are hierarchies of who is considered to do good work and who is not. In Zapopan, an ‘agrarian advisor,’ referring to a generally more established practice of brokerage operating out of a printshop, explained how the ‘coyotes’ went out of their way to take advantage of people. She continued by stating that agrarian advisors have more knowledge of the legal and bureaucratic processes, while the coyote is an opportunist who will take anybody’s money.

In Bhiwandi and Kajiado, we also note how status and reputation are important in determining access to and effectiveness in state bureaucratic spaces (Table 2). Proximities to state spaces are fabricated based on social positionality within the community, partly determined by gender, religion, language, and degree of establishment. In the context of land and property registration, the broker’s socioeconomic position can deeply influence their ability to access land records, acquire building permits, and other related paperwork.

During our observation of a land survey in Bhiwandi, we noticed that the land parcel being surveyed had multiple ownership claims, leading to disputes and, ultimately, the termination of the survey. One stakeholder noted that a local political leader, a member of the state Legislative Assembly, had brokered the deal, thereby legitimizing their land claim. They had been using the land for an extended period, and their right to it had never been disputed. In this instance, the legitimacy of the claim hinged not on documentation but on the status of the person who brokered the deal and the duration of their inhabitation.

The status of the broker also influences perceptions of legitimacy and formality associated with their work. When acts of brokerage are executed from within the formal facades of a white office with a receptionist, desk, and computer rather than the copy shop, it becomes – at least perceptually – less tenuous. One interviewee in Zapopan stated that having a fixed office and a good network of fellow brokers who can back you up increases the client’s confidence in your work. By emphasizing their responsibility in serving citizens and the community, they place themselves in the role of the state as caretaker and service provider. Yet, as illustrated in the response from the print shop owner who said that any data breaches would be solved by Google or in the

**Table 2**

Overview of the different brokers and spaces of brokerage, their role, place, and technologies used within the digitalizing systems of land governance.

	Function with the digitalizing system	Technologies used	Place
Cyber café / Print Shop	Conversion between paper and digital document, meeting point for brokers and clients.	Email and cloud services (Google) WhatsApp, copy and print machines	Close proximity to governmental administration offices
Typists	Fill in standardized paper and digital forms in governmental platforms.	Computer access to digital state platforms and digital forms.	close proximity to governmental administration offices.
‘Low status’ brokers (e.g. coyotes, Dalaal, land brokers)	Advise clients, collect documents, and do the footwork in the governmental offices to expedite applications.	WhatsApp, phone, USB	Float around the government offices and cyber café / print shop.
‘High status’ brokers (e.g. ‘Asesoría agraria’ and land agents)	Advise on different aspects of land transactions and interact with multiple government offices	WhatsApp, phone, USB, official software for building applications or land registration.	Brick and mortar offices, close or far from administration offices.

discussions about corruption, this is a shallow sense of responsibility, where they will not be held accountable when things go wrong.

This points to the slippery position held by brokers within the digitalizing state. On the one hand, they fill the gaps in a glitchy digital infrastructure that does not reach all citizens, while by creating alternative and uncontrolled digital information flows, they become a liability in the system. The intermediaries we spoke with themselves expressed mixed feelings regarding their future roles in a digitalized environment. They acknowledge the challenges posed by digitalization but see it as an opportunity to streamline their work. Digital platforms can make their services more efficient, allowing them to assist clients who find the new systems complicated and inaccessible. At the same time, they are also aware that bureaucratic digitalization is a slow process. According to Pedro in Zapopan, only “10% of progress has been made” in the digitalization of land registration. He argued that the only real advancement thus was the introduction of a platform where citizens can track the status of their application. Due to ongoing controversies and disputes in the land registries and the persistent reliance on paper to sort this out, brokers remained valuable to citizens. They provide valuable assistance in navigating cumbersome procedures, saving people time and effort.

Moreover, deeply ingrained in paper-based bureaucracies, the subsidiary practices of brokerage to keep paper documents flowing do not disappear with the introduction of digital systems. Rather, from our conversations, it became increasingly clear how when digitalization lands in a context of brokerage, brokers will find a way. Highly knowledgeable of the paper-based bureaucracies and their materialization and operation on the ground, they quickly pick up on the transition towards an increasingly digitalizing system. The brokers understand the context in which digital systems are developed. Excluding them from our analysis of the emergence of the digitalizing state would mean overlooking a crucial aspect of how digitalizing bureaucracies function in practice.

**6. Conclusions: face-to-face interactions in the subsidiary spaces of the digitalizing state**

In her book *Disrupted Urbanisms*, Nancy Odendaal (2023) writes of the tendency of digital infrastructures such as platform technology and smart city hubs to deepen public relationality and, in the process, re-imagine the limits of the public realm. Linking this to early theorizations of ‘associational life,’ which emphasize the purpose and function of local kinship networks in the contexts of inadequate service and infrastructure provision by the state, she continues to explain how subaltern agency is not reduced with the introduction of digital technologies mediating relationships. Instead, she argues, a ‘hybrid space’ is created ‘where analog and digital platforms rub up against each other’ (p.105). In this paper, we see these types of hybrid spaces popping up in print shops and cybercafés where brokers from all types translate between analog and digital infrastructures and, in the process, create subaltern geographies of information flows.

What we learn from these three case studies of digitalization in the peripheries of metropolitan regions is how, despite the diverse and contextualized expressions of digitalization of land administration, there are similarities in how digital technologies of the state lands in the communities and networks that are only partly, or not at all, integrated. The complex nature of the land administration arises from incomplete official records and an opaque, multi-layered, and often reluctant bureaucracy. Registering a land transaction requires interaction with various, frequently unsynchronized levels of land governance, necessitating mediators who understand this intricate system.

This insight troubles the discussions on state-led digitalization, which has strongly focussed on the informational, geographical, and powerful core and the theoretical classifications between digital and analog. Resonating Guma’s (2022) calls for paying attention to the reach and adaptation of infrastructure in marginal cities in the global South, as

well as Datta (2023), who argues for the increasing importance of informational infrastructures in shaping the periphery, we add to these discussions that researching the peripheries helps us problematize the idea that digital technologies lead to the further segregation of modernist and traditional, interconnected and distant. Rather, we argue, digitalization happens exactly in these peripheral spaces and through subaltern strategies, to be later integrated into the information flows of the state.

In researching how the digitalizing state emerges from below and sketching how intermediaries carve their way into the system, we are impressed with the porosity of the digitalizing state. As others have also discussed (Datta, 2022; Easterling, 2016), the extensive intermingling between public and private organizations seems to be an inexhaustible feature of the digitalizing state, observed on all levels of statecraft. Although brokers officially operate at the margins of law and regulation, they often function at the center of governance arrangements, facilitating the digitalization of information through de-facto networks and acting as the information interface between citizens and the state in an increasingly contact-less relationship. Our research highlights the diverse scales of brokering operations: from individuals who linger outside state spaces to fill out application forms for citizens to more formal organizations that broker land deals and help clients navigate the entire bureaucratic process.

The diverse constellations of actors that are emerging together with the digital systems do not lend themselves to be easily captured in the categories through which digital governance is often understood. The interplay between digital technologies, paper-based systems, typists, consultants, and citizens urges us to consider digitalization in many ways and goes against the novelty and excitement ascribed to the dynamics of modernizing and digitalizing state governance. Assumptions about the 'proper' spaces for digitalization and ways of conducting bureaucratic work will encounter resistance. Similarly, attempting to create binaries of state and non-state actors or analog or digital information infrastructures offers only confusion. These conceptual constraints complicate the description and categorization of brokerage work within the digitalizing state. However, by focusing on brokers' work in forging connections, facilitating the flow of information, and maintaining ties among actors, sites, and rationales, we gain insight into digitalization processes and lay a foundation for theorizing emergent networks and changing relationships in the digitalizing state.

In the development and implementation of digital systems for land governance, we observe how brokers frequently subvert protocols, develop alternative methods of data sharing, and occasionally engage in illicit practices. From this perspective, digitalization is rarely about implementing perfect solutions; it is more about managing instability and creating pragmatic workarounds (Kocksch, 2024). This is the role brokers fulfill within the system. As illustrated by the use of simple, functional technologies in the cyber café and the prevalence of WhatsApp for the flow of information, sophisticated, high-tech systems are not essential for public service provision. Adapting simple digital technologies to facilitate people's engagement with digital governance while at the same time being aware of the continued importance of both paper documents and assistance in logging procedures, the brokers we spoke with did not seem fazed by the advancement of digitalization and e-governance services. Citizens seek out intermediaries for two reasons: the complexity of the bureaucratic tasks involved and the reassurance provided by a human guide within a digitalized system. People are in search of contact points and anchors, often finding them in intermediaries. This posits that there is a vast space between 'success' and 'failure' in digital systems. From the perspective of the tech developer, the externalization of digital services to print shops and cyber cafés might be defined as failure. At the same time, for residents, these citizen-centered, face-to-face interactions provided in subsidiary spaces of digitalization are an effective route for successful interactions with the state.

In sum, paying attention to the geographies of information flows

shows how digitalization in practice unfolds in both the offices of the state as well as in subsidiary, hybrid spaces, and through acts of brokerage. This can result in a fractioned system that lacks full transparency and accountability, particularly concerning data ownership, processing, and protection. A porous network where digital technologies do not directly enhance the state's ability for governance and service provision but rather increase its dependence on contractors and intermediaries with technological expertise that bureaucrats and citizens lack. We argue that the paper-filled offices of print shops and cybercafés where mechanic typewriters are back-ups and WhatsApp is the main means for sharing digital documents are also sites where a potentially different range of alternative digital futures are exposed. Outside of the tropes of control, seamless connection, or the globalizing effect of digital technologies, these alternative digital futures consider more deeply the institutionalized cultures and ways of organizing civil and political life in which digital technologies are introduced.

### CRedit authorship contribution statement

**Fenna Imara Hoefsloot:** Writing – review & editing, Writing – original draft, Project administration, Methodology, Formal analysis, Conceptualization. **Neha Gupta:** Writing – original draft, Data curation, Conceptualization. **Dennis Mbugua Muthama:** Writing – original draft, Data curation, Conceptualization. **José de Jesús Flores Durán:** Writing – original draft, Data curation, Conceptualization.

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