

– NAVIGATING STATE SPACES: Methodological Insights and Reflections from Research in India, Mexico and Kenya

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Abstract

This collaborative essay provides a methodological reflection and a list of recommendations on the opportunities, uncertainties and limitations faced when researching state spaces in India, Mexico and Kenya. Drawing on recent fieldwork across these countries, we illuminate the complexities and challenges inherent in studying state institutions and their roles in territorial governance and urban management. Our analysis is informed by 12 months of combined remote and in-person research, during which we employed ethnographic immersion and in-depth interviews to explore the interplay between digitalization and state power. We offer collective reflections along three main lines. First, we address the elusive nature of the state, highlighting the challenges of gaining trust from elite government officers and the significance of engaging with nonstate actors who mediate relationships between citizens and bureaucratic entities. Second, we underscore the importance of critically reflecting on the researcher's positionality and identity, particularly when working in culturally unfamiliar settings. Third, we advocate for the value of maintaining openness to multidisciplinary dialog and emphasize the importance of engaging with anticolonial and feminist methodological approaches. We believe these insights and lessons will be valuable to other scholars and practitioners investigating the dynamics of state power in the digital age.

Introduction: researching state power

For decades, the social sciences and humanities have critically examined the state as a complex, permeable and ever-changing apparatus. Scholars from diverse perspectives and locations have scrutinized state institutions, their practices and their impacts on citizens and the broader public. This has encompassed various approaches to the state, including the creation of new governmental institutions, the fortification of existing ones (e.g. Mann, 1984; Driver, 1991; Braddick, 2000; Fukuyama, 2004), the emergence and evolution of state surveillance (e.g. Scott, 1998; Higgs, 2001; Hall *et al.*, 2017) and the shift toward state entrepreneurialism and innovation observed in advanced capitalist states (e.g. Mazzucato, 2013). Recently, phenomena such as climate change and international migration have renewed attention to the state's ability to manage territories, resources and populations (e.g. Wainwright and Mann, 2013; El-Enany, 2020; Dijstelbloem, 2021; Möllers, 2021).

With the advent of the Fourth Industrial Revolution, characterized by the rise of robotic and automation technologies (4IR), the literature on the state has increasingly explored digitalization as a pivotal force transforming government operations and interactions with citizens. In urban contexts, scholars have highlighted how governments worldwide, often in collaboration with powerful IT corporations, capitalize on increased

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computing capacity, harvest data through sophisticated algorithms embedded in digital platforms, and expand their surveillance and control capabilities across multiple domains of urban life (e.g. West, 2005; Braman, 2009; Thomas, 2012; Eubanks, 2018; Schou and Hjelholt, 2018; Macrorie *et al.*, 2021; Maguire and Ross Winthereik, 2021; Peng, 2022; Datta, 2023).

Acknowledging the challenges inherent in studying the state (Abrams, 1988; Mitchell, 1991) and researching the rapidly evolving landscapes of urbanization and digital governance (Braman, 2009; Parnell and Pieterse, 2016; DeNardis *et al.*, 2020), this essay presents our experiences and insights from studying the digitalization of government institutions in India, Mexico and Kenya. Drawing on our interactions with state actors, we share some of our struggles to navigate the dense and often opaque barriers of institutional confidentiality and reflect on the lessons learned from engaging with local bureaucracies in global South countries. Additionally, we address the challenges of researching an increasingly elusive state, whose functions are often outsourced to private actors through subcontracts, concessions and public–private partnerships (Sassen, 2007; MacLeavy and Harrison, 2010; Theodore *et al.*, 2011).

The primary objective of this essay was to reflect on the methods commonly employed to generate knowledge about the state and its governmental infrastructures. Specifically, we discuss the multiple challenges encountered while critically examining the politics, behaviors and performances of state institutions concerning digitalization—a process we understand as a transformation from traditional manual systems into networked technologies that use computation ‘to organize, add value to, extract insight from, and present information’ (Kitchin, 2023: 56). While acknowledging significant methodological contributions from scholars in other disciplines, we focus on methods that geographers have long employed to illuminate how states exert power, control and authority over populations and territories, namely ethnographic observation and in-depth interviews.

Our arguments engage with various works in the subfields of digital, political and urban geography. For example, we build on ethnographic research conducted by geographers examining phenomena such as smart urbanism, urban dashboards and digital landscapes (Baud *et al.*, 2014; Kitchin *et al.*, 2016; Ghertner, 2017; Breslow, 2021; Kitchin, 2023; Odendaal, 2023). We also explore how researchers have utilized in-depth interviews with stakeholders to understand the reconfiguration of cities and the transformations in urban governance driven by Information and Communication Technologies (ICT) and digital mapping (e.g. Baud *et al.*, 2014; Kitchin *et al.*, 2015; Datta, 2020; Kitchin, 2023). Moreover, we draw on feminist geography literature that discusses the gendered dimensions of conducting research in male-dominated contexts, including government offices (Nelson and Seager, 2008; Parker, 2017).

The essay opens by introducing our research context and detailing our experiences with state bureaucracies across the three case studies. We then discuss the team’s pragmatic approaches to researching the impacts of digitalization on urban planning and land governance. Next, we explore how cultural contexts shape our research in state spaces, with particular attention to how gender identities influence our interactions with public servants. Finally, we analyze the benefits and challenges of conducting interdisciplinary and transnational research to understand state power in the digital era. The essay concludes with a summary of its main contributions and practical recommendations.

Research context

This essay draws on our research in India, Mexico and Kenya, conducted as part of the Regional Futures project, which examines the intersections between digitalization and urbanization in three metropolitan regions of the global South: Mumbai, Guadalajara and Nairobi. The project’s data collection was carried out by an

international research team of 13 members, including the five authors of this essay. The team focused on the implementation of digitalizing strategies and programs in state bureaucracies, investigating how digital tools mediate urban and peri-urban spaces and transform the interaction among citizens and governments. To address these questions, the team employed a range of research methods, including ethnographic observations, semistructured interviews, focus groups and archival research. Operating as a transnational and interdisciplinary team, we closely monitored the activities of government offices responsible for land administration and urban planning in these three countries. This long-term immersion was facilitated by the team members' geographic distribution, with three researchers residing in each of the target countries and the remaining two based in the United Kingdom, where the project coordination took place.

Researching state spaces in India, Mexico and Kenya involved extensive engagement with a variety of institutions. This entailed detailed observations of daily bureaucratic operations related to digital transformations in planning, urban development and land administration ministries. Given the geographical focus of our research, we deliberately analyzed the physical spaces where the state's use of digital platforms, automated algorithms and big data are implemented. This meant concentrating on specific locations, including IT-GIS and geomatics departments, land registries, cadastral offices, agrarian ministries and urban planning offices. Observations of IT-GIS departments were particularly crucial for understanding the impact of geolocate data on spatial transformation, as these units often support other state departments in developing and implementing digitalization initiatives. Similarly, our work with land administration departments was crucial for examining local territorial politics, as these entities often manage records related to land use, ownership and plot boundaries. Investigating urban planning and development offices provided valuable insights into zoning, master-planning and construction regulation processes. In summary, by scrutinizing these spaces and the actors within them, our team illuminated the role of digitalization and automation in regional development, while also highlighting the tensions, inconsistencies and incompleteness that often accompany digital transformations (Guma, 2020; Kitchin, 2023; Odendaal, 2023).

Our research also considered the interactions between nonstate actors, ordinary citizens and public institutions. To this end, we engaged with a variety of nonstate actors involved in land administration and urban planning, including private planners, structural engineers, architects, surveyors, land valuers, land brokers, notaries and agrarian lawyers. We also conducted interviews with land and property owners, which allowed us to gain a comprehensive understanding of their interactions with state bodies, often characterized by competition, alliances, coercion and, at times, corruption (Boone *et al.*, 2019; Berenschot and Bagchi, 2020; Rizzo, 2020). In Mexico and Kenya, we also engaged with communal landowners, including *comunidades indígenas* and Maasai group ranches, respectively. These formations have recently been affected by state digitalizing efforts, such as the transition from manual to online applications for state services and the introduction of a new generation of land ownership certificates equipped with digital features to prevent counterfeit (e.g. barcodes, QR codes).

Overall, our immersive research approach aimed to critically examine state digitalization by engaging not only with government institutions but also by viewing the state through the perspectives of those who frequently interact with it. This approach allowed us to construct a clearer picture of how digital and automated systems shape and reshape the logics, materialities, practices and processes of urban and peri-urban environments in India, Mexico and Kenya. In the next section, we explore the challenges of engaging with elite stakeholders within state institutions and the importance of considering other agents beyond government bodies.

That elusive thing called the state

Our research into state apparatuses and their digitalization efforts involved approaching numerous high-ranking officials across local, regional and national state institutions. This often posed significant challenges in gaining access and building trust. Many of our requests for interviews or research visits were either denied or ignored. Even when interviews were secured, they were sometimes abruptly canceled on the day of the appointment due to unforeseen circumstances. In India, accessing local bureaucracies proved particularly difficult, partly due to the increasing climate of secrecy and distrust within government institutions (see Parkin *et al.*, 2023). Similar distrust was encountered in Mexico, especially among staff at the Agrarian Registry (*Registro Agrario Nacional*), where officials frequently avoided our calls or left our emails unanswered. We later discovered that the institution was under scrutiny due to recent corruption allegations linked to a local union (Toledo, 2023).

Another significant challenge was the long hours spent waiting, a routine part of our interactions with state institutions. We often found ourselves waiting in corridors and reception areas for interviews with public servants. Additionally, substantial time was spent as potential participants meticulously reviewed consent forms, carefully weighing the risks of participating in our research. These experiences of waiting were marked by feelings of uncertainty, perplexity and frustration—emotions familiar to many social researchers (Dunn, 2000). On a positive note, the time spent in government waiting rooms offered opportunities to observe other officials at work and engage in casual conversations with citizens waiting for services. These observations and interactions often led us to identify potential informants.

Waiting outside government offices also facilitated spontaneous encounters with informal workers involved in land administration. In all three countries, we found ourselves exploring the vicinity of ministries and agrarian authorities, where we frequently engaged with nonstate actors who assist citizens in their dealings with government institutions. This included land brokers, typists, intermediaries and other private practitioners. For instance, in Kenya, we spoke with land brokers offering services near the Ministry of Lands offices. In Mexico, we interviewed intermediaries, locally known *gestores*, who expedite applications at the Agrarian Registry. In India, we followed the work of typists and informal workers in copy shops and cybercafés, where citizens often go to scan documents, fill out applications, or seek legal advice.

Through these encounters, we realized that a critical analysis of digital technologies and infrastructures in urban development and planning must include consideration of the less visible actors operating within an often-informal labor structure that runs parallel to the state. Accordingly, we examined the agency of brokers, intermediaries and consultants in the context of emerging digital infrastructures. However, engaging with these actors also raised pragmatic and ethical concerns. Some of these individuals engaged in illegal practices, such as circumventing taxes and regulations or offering services at lower prices than official channels (Keys, 2005; Forero and Redclift, 2006). As researchers, we had to carefully navigate our responsibilities, ensuring that we reported back on these actors' work without harming them or inadvertently legitimizing illicit practices. To this end, we implemented rigorous consent processes, meticulously safeguarding the anonymity of our participants. In some cases, we opted for off-the-record interactions to ensure the safety of our interlocutors.

The repeated instances of rejection, delay, postponement and cancelation when dealing with state institutions forced us to adapt our academic rhythms to align with those of our interlocutors. Given the uncertainties surrounding cooperation from some officials, we adjusted our research plans and deadlines to accommodate the time needed for trust-building and the ongoing pursuit of less responsive participants. We also learned to assess the risks of 'letting go' of elusive stakeholders, a gap we filled by

deepening our engagement with the relevant literature and interviewing alternative interlocutors.

Evidently, we are not alone in encountering bureaucratic delays and participants' distrust. A substantial body of literature has explored the everyday state and the temporal implications of state planning and service provision (Hull, 2012; Carswell *et al.*, 2019; Anderson *et al.*, 2020). Sociologists, anthropologists and political scientists have highlighted how citizens often wait for responses from the state, particularly concerning benefits and public services (Jeffrey, 2010; Auyero, 2012; Gupta, 2012; Oldfield and Greyling, 2015; Ghertner, 2017; Carswell *et al.*, 2019). These studies reveal how state officials may manipulate time to their advantage, sometimes neglecting citizens' needs and demands. Methodological analyses have also addressed the challenges of approaching elite stakeholders, showing that high-ranking officials and other political elites are not always open to external scrutiny as it may disrupt their agendas or be perceived as a threat to their power and prestige (Peabody *et al.*, 1990; Harvey, 2010).

Moreover, our research into the intersections between digitalization and urbanization underscored the importance of engaging with entities beyond traditional state actors. Aware of the current state landscape shaped by decades of neoliberalization and state fragmentation (Sassen, 2007; Theodore *et al.*, 2011; Elden, 2022), we actively involved a wide range of actors, including private GIS experts, professional consultants and representatives from global tech companies. This approach resonates with contemporary understandings of the state as not a monolithic entity, but as a network of heterogeneous institutions and individuals with varied and sometimes competing objectives (Datta, 2023). For example, while examining the automation of building permit issuance in Kenya, we observed that the transition from paper to digital processes was facilitated by a collaboration between county authorities and a private IT company, funded by the World Bank. Similarly, in exploring the automation of Guadalajara's cadastral registry, we analyzed the international sponsorship from Bloomberg Philanthropies, which enabled the government innovation scheme leading to this development. These cases underscore the complexity of state digitalization, highlighting the need to closely examine the nonstate players whose actions continually influence land administration and urban planning (Whitney and López-García, 2023).

Researching heterogenous urban contexts: cultural and gender dimensions

Our fieldwork in India, Mexico and Kenya offered deep insights into the complexities of conducting research in diverse cultural settings where traditions, beliefs and local practices must be carefully navigated. These experiences heightened our awareness of our roles as academics and the unique identities and biases we bring to the research process. For the five members of our team, encounters with different cultural environments sparked critical reflections on our ethnic and gender identities, as well as our institutional affiliations and the values these identities impose on us. This is not a new discussion; the challenges posed by researchers' identities and their influence on research—from data collection to analysis and writing—have been extensively explored by feminist, decolonial and queer scholars within and beyond the discipline of geography (Haraway, 1988; Åsberg and Lykke, 2010; Tuhiwai Smith, 2013; Tolia-Kelly, 2017; Ahmed, 2023). Our reflections during this research have thus engaged closely with this body of literature, which considers the gendered, racial and class dimensions of qualitative research. In this section, we briefly elaborate on these reflections.

In each of the three countries, our in-person visits to government spaces exposed us to local cultural dynamics that often revealed unequal gendered relations. In India, for instance, the female members of our team frequently encountered dismissive attitudes from male government officials, some of whom even joked about the researchers being a burden. Additionally, male officials in India's municipal corporations often questioned the female researchers about their qualifications and earnings in academia. In contrast,

our experiences in Mexico and Kenya were marked by participants' acknowledgment of the heightened vulnerability to harassment and violence in these contexts. For example, the female team members were often advised against visiting slums or neighborhoods considered unsafe alone, with suggestions to bring a male companion.

In India, cultural expectations around gender dress codes influenced how we approached government spaces. When engaging with municipal planning authorities, one female team member opted to wear a salwar kameez¹ instead of her usual attire of a t-shirt and jeans. Although no public servant explicitly requested this change, she felt that adhering to local dress norms would minimize judgment and increase the likelihood of her interlocutors engaging more fully with her inquiries. Simply put, following local cultural conventions (i.e. wearing a salwar kameez) facilitated more effective data collection from participants.

Our strategies for accessing government spaces are not unique. Many female researchers have theorized on the gendered power dynamics in research and developed strategies to reposition themselves in the field (e.g. Rose, 1993; McDowell, 1997; Parker, 2017; Ackerly and True, 2019; Nielsen, 2019; Ahmed, 2023). These experiences have underscored that conducting qualitative research is not merely about obtaining the right data; it is fundamentally about developing the right strategies to navigate heterogeneous research contexts, which are always intersected by power relations along gender, racial, ethnic and class lines.

Moreover, echoing testimonies from women conducting research in male-dominated spaces (e.g. Roberts, 2013; Kusek and Smiley, 2014), we have reflected on masculine performances of power within the research environment. Documenting our experiences as fieldnotes and sharing them during our weekly meetings has allowed us to fully acknowledge the nuanced layers of ethnographic research, particularly the complex interplay between culture and social behavior. Our colleague's decision to conform to local dress codes in India illustrates the moral and cultural signals that researchers receive and respond to during fieldwork. In this instance, our colleague sought to gain acceptance among municipal workers, fostering a form of 'cooperation' that was respectful of local practices and ensured smoother interactions in the field. While she could not predict the outcomes of not wearing a salwar kameez, she sensed that aligning her attire with the expectations of her participants would reduce the likelihood of resistance and increase the chances of obtaining more authentic opinions.

The sexism and gendered stereotyping we navigated as female researchers underscore how essential it is to reflect on gender relations when immersing ourselves in state institutions. These experiences are not unique to our team or the contexts we study. On the contrary, power differentials are pervasive across research spaces and tend to be more pronounced when female and nonbinary scholars conduct research in settings where female-coded bodies are subject to distrust, surveillance, management and harassment (Nast, 1994; Calderon, 2014; Ahmed, 2017; Parker, 2017; Tolia-Kelly, 2017).

Drawing on our field encounters, we have emphasized the importance of locating ourselves within the multiple intersections of power in our social-material worlds (Rodriguez and Ridgway, 2023). Pragmatically, this has involved systematically recording our fieldwork reflections, engaging in group discussions and reviewing relevant literature. We have also challenged ourselves to unpack the privileges that our identities bring into the field. Consequently, we have actively reflected on how our performance in government spaces is influenced by a series of privileges and disadvantages, depending on how our bodies are perceived. While contesting these power differentials is not always feasible, acknowledging them is a crucial step toward

1 A salwar is a pair of light loose trousers with a tight fit around the ankles commonly worn by women from the Indian subcontinent. A kameez is a long shirt or tunic.

conducting academic research that is critical, feminist and ultimately emancipatory (Jazeel, 2017; Bhabra *et al.*, 2018; Cupples and Grosfoguel, 2018).

Interdisciplinary approaches to the state: finding common ground and navigating disagreement

Studying the intersection between digital technology and land governance across three countries is a complex and ambitious endeavor. Our research framework necessitated the collaborative efforts of a transnational and interdisciplinary team. Beyond data collection in three metropolitan regions, our process involved ongoing remote communication among team members, the continuous uploading and backing up of an expanding empirical dataset, cross-examining field observations and cowriting research outputs via cloud-based documents.

Through this journey, we encountered a range of challenges inherent to conducting interdisciplinary and transnational research. Beyond the common inconveniences of remote communication—such as navigating different time zones, unreliable internet connections and screen fatigue—we also grappled with the complexities of bridging diverse cultural, theoretical and methodological approaches. Our team members come from varied cultural backgrounds and are trained in different fields: three are human geographers, one is a land economist and the fifth one is a scholar of digital cultures. These diverse perspectives inevitably shaped our research methods and influenced how we engage in knowledge production.

A salient challenge was the occasional discrepancies in our definitions of key theoretical concepts. Disagreements often arose around notions such as land, space, territory, or place—each central to our analysis of the relationships between digital technologies and territorial politics. Rather than dismissing these divergences, which are an inherent part of interdisciplinary work (Barry and Born, 2013), we sought to compare theoretical perspectives and collectively adopt those most suitable to our study. After extensive discussions on the polysemy of certain terms, we settled on definitions and theoretical perspectives that best aligned with our research.

Disagreements also surfaced when deciding on the most appropriate methodological approaches to examine the digitalization–urbanization nexus across our three case studies. While these disputes were challenging, they ultimately proved to be a generative force in refining our methodological practices. Our differing disciplinary views sparked productive debates that enriched our engagements with bureaucratic cultures, state and nonstate actors, and digital infrastructures. A key example was our heated debate on the ‘true’ meaning of nonparticipant observation. While some team members argued that it was nearly impossible not to influence participant behavior with our presence, others maintained that the method’s core principle was the researcher’s passive role, refraining from asking questions or interacting with participants. After several rounds of discussion and literature review, we agreed to simplify the term to ‘observation’, dropping the prefix altogether. This instance underscored our understanding of interdisciplinarity as a collaborative activity where scholars from different fields work together to develop a unified methodology that facilitates cooperation within a shared framework (Jantsch, 1972).

Despite the fundamentally geographic nature of our project, we consciously incorporated theoretical and methodological approaches from disciplines beyond geography. This interdisciplinary openness allowed us to view geography as a discipline uniquely positioned to contribute to broader academic endeavors due to its breadth and depth (Simon and Graybill, 2010). Consequently, we came to appreciate the value of integrating geographical knowledge with insights from political science, anthropology, science and technology studies (STS) and critical data studies. This approach aligns with other initiatives that consider geographical research as inherently interdisciplinary (Baerwald, 2010).

Our fieldwork experiences also prompted critical reflections on the global North/South divide in geographical research. As scholars in urban studies and related fields have noted, there is a widespread concern that, despite the growing body of empirical research in global South cities, urban theory remains dominated by Northern cities and scholars (Lawhon and Le Roux, 2019; Lemanski, 2019; Alizadeh and Prasad, 2024). This awareness has led us to consistently question how we could actively implement research practices that address these imbalances. Moreover, we considered how we could support the academic production of nonglobal North scholars. While we did not have easy answers to these questions, we implemented a series of pragmatic actions aimed at addressing these challenges. One example is that our research outputs purposefully cite the work of global South researchers, always aiming to uplift the voices of those scholars that are local to the contexts we engage with. This politics of citation encompasses citing works in languages other than English, including Marathi, Swahili or Spanish. This means that we find value in resources that remain in the periphery of North American and European research as not all of them have been translated to English. Likewise, we have sought to flatten power differentials in academia by supporting the team members based in India, Mexico and Kenya to present their work in international conferences and symposia. In the process, we have learned about the diversification of spaces that have long been dominated by the voices of global North academics.

Conclusions

This essay offers a collective reflection on the key methodological challenges encountered by a group of five scholars researching state digitalization in India, Mexico and Kenya. Specifically, we have discussed our experiences in scrutinizing the integration of digital interfaces and automated systems into urban administration and land management practices. At a time when processes such as information storage, subsidy distribution and state–citizen interactions are increasingly digital and automated (Coletta and Kitchin, 2017; Chatterji, 2018; Janowski *et al.*, 2018; Datta, 2023; Jørgensen, 2023), we have explored the possibilities and limitations of researching state bodies and the methodological implications of this endeavor. Our reflection has been driven by questions arising from our empirical work, including: What does it mean to research state spaces in the digital age? How can researchers effectively engage with local governance institutions in global South contexts? And how can a nuanced understanding of the researcher's positionality enhance urban fieldwork? Collectively reflecting around these questions, we have come up with a series of pragmatic recommendations on how to appropriately face challenges and difficulties when in the field (Table 1).

The intersection between digital technology and state power is complex and ever-evolving. Drawing on 12 months of ethnographic observations and interactions with state and nonstate stakeholders, we have shared key insights into the use of ethnographic research to elucidate the implications of state digitalization. One of the primary challenges we highlighted was the prolonged periods of waiting often required to gain access and trust within state institutions. In our case, the difficulties in engaging elite public servants prompted a series of reflections on how to remain realistic when planning research on the state. In close dialog with the literature on state temporalities and urban studies (Chien and Woodworth, 2018; Simone and Pieterse, 2018; Datta, 2020; Kitchin, 2023), we demonstrated that research on digitalization can benefit from attentiveness to the various temporal dynamics at play within state and para-state organizations. Additionally, we argued that any attempt to engage with state digitalization must consider how state officials use time strategically to block or delay access to social scientists and other researchers.

Another crucial consideration was the impossibility of treating the state as a monolithic and well-defined entity. Echoing conceptualizations of the state as an unstructured network of heterogeneous institutions and individuals (MacLeavy and

TABLE 1 Recommendations according to fieldwork dimensions

Fieldwork dimension	Recommendations
Encountering distrust among research participants and facing barriers due to institutional confidentiality	- Adjust research plans and deadlines to accommodate the time needed for trust-building and the ongoing pursuit of less responsive participants - Focus on alternative participants who may be more accessible or willing to engage - Conduct participant observations in areas surrounding institutional headquarters to identify potential informants
Navigating male-dominated research environments as a female or nonbinary scholar	- Take into account the gender dynamics specific to the local culture - Seek advice on behaviors that may be considered offensive or inappropriate by research interlocutors - Consult with peers and colleagues about the advantages and disadvantages of expressing your values on gender relations
Engaging in interdisciplinary and transnational research, including remote teamwork	- Be mindful of technological challenges faced by team members, such as blackouts or unreliable internet connections - Consider screen fatigue when scheduling online meetings - Acknowledge the diverse cultural and academic backgrounds of team members - Encourage open discussions on theoretical or methodological approaches to the research question and seek consensus by revisiting relevant literature and the project's research focus

SOURCE: Authors' work

Harrison, 2010; Datta, 2023), our research has encountered the state apparatuses in India, Mexico and Kenya as diverse and continually evolving networks of bodies and agents. Consequently, part of our ethnographic work involved understanding the formal and informal connections that government institutions maintain with ICT companies, GIS experts and intermediaries operating on the margins. By following the work of these actors, we gained valuable insights into the impacts of digitalization across a wide range of state-led process, including land titling, revenue collection and urban planning.

We have used this intervention to underscore the importance of understanding power dynamics, positionality and subjectivities when conducting research in unfamiliar contexts. Our reflections demonstrate how our intersecting identities—class, gender, cultural and ethnoracial—significantly impacted our engagement with government officials. For instance, we described our experiences in male-dominated public offices in India, where being mindful of local gender roles was crucial in avoiding offense to our interlocutors. This required us to unpack the gendered nature of state spaces, which at times conflicted with our own feminist aspirations for gender equality. In reflecting on this conundrum, we drew inspiration from a growing body of literature on research ethics and decolonial approaches to geographical research (e.g. Baldwin, 2017; Esson *et al.*, 2017; Jazeel, 2017; Zaragocin and Caretta, 2021). These perspectives have informed how we approach our interlocutors and decide when to display or conceal our values in unfamiliar research contexts. As scholarship shows, power relations in the field are a constant for any geographer or social researcher, and collectively exploring pragmatic ways to address these differentials is a positive step toward advancing anticolonial, feminist and liberatory research practices.

Reflecting on our experiences in the Regional Futures research project, we have highlighted some of the everyday challenges of collaborating as an interdisciplinary and transnational team, ranging from technical failures to disagreements over key concepts and theoretical frameworks. We acknowledge that there are no easy answers to interdisciplinary clashes, but we found that experimental approaches to addressing disciplinary differences can be effective. One strategy that proved successful for us was embracing disagreement and refocusing discussions on the theoretical frameworks that aligned with our research ethos. This approach not only strengthened the work of our heterogenous teams but also underscored the inherently interdisciplinary nature of geography (Baerwald, 2010).

Ultimately, we have approached the task of researching the state from different angles, not with the intention of producing comprehensive answers, but rather to open a productive dialog on the types of fieldwork practices needed to address state

performance and power in the digital era. We hope these insights will be valuable to other scholars working at the intersection between digital infrastructures and territorial governance.

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