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(Im)mobility infrastructure: a 21st-century dystopia?

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ABSTRACT

Based on the contributions in the special issue on Infrastructures and (Im)mobile Lives and the author's observations about changes in global mobility during the COVID-19 pandemic, this article proposes to broaden the concept of migration infrastructure into (im) mobility infrastructure. While migration infrastructure coordinates international migration, (im)mobility infrastructure manages people's physical movement, both over long distance and on a daily basis, partly through the redistribution of mobility across types and populations. Mobility and immobility become deeply entwined. (Im)mobility infrastructure is important for building social resilience against crises such as pandemics, but can seriously undermine citizen rights.

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Human mobility, both long-distance journeys and daily commuting, experienced unprecedented disruptions during the COVID-19 pandemic. The disruption was not, however, caused by policies of mobility restriction alone, such as temporary border closures. Rather – and critically – the disruption was accompanied by the introduction of a wide range of measures that *sustained* immobility. As mobility had become such an integral part of life in the global era, a life with minimal mobility required exceptional measures to be possible. The measures that sustained immobility included government regulations on quarantine and social distancing; commercial services providing goods delivery and online transactions; physical structures such as quarantine centres; technological systems for contact tracing and mobility monitoring; social networks such as neighbourhood associations that implemented mobility restrictions as well as providing assistance to residents; and humanitarian organizations that assisted those who had special needs while under confinement.

These sociotechnical systems constituted an infrastructure that made large-scale population immobility possible. Such infrastructure does not, however, eliminate mobility altogether. Rather, its functioning relies on maintaining, and even augmenting, some forms of mobility, including the movements of "essential workers" such as medical personnel and delivery workers. Mobility restriction turned out to be "mobility redistribution". For instance, platform-based commercial enterprises provided delivery services that allowed residents to meet their essential needs without leaving home. These services

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were part of the mobility infrastructure that facilitated delivery workers' movement, and at the same time an *immobility* infrastructure that enabled restrictions on residents' mobility. The internet-based platform is, accordingly, an infrastructure that enables people to "outsource" their mobility to others. Similarly, humanitarian organizations bring mobility and immobility together by dispatching volunteers to help those in need. Accordingly, the infrastructure of immobility is always also an infrastructure of mobility. Thus, "(im)mobility infrastructure".

(Im)mobility infrastructure is likely to play a more important role in building social resilience in the coming decades. Large-scale mobility restrictions will likely be necessary from time to time to deal with future pandemics and other crises, given that the frequency of emergence of new pathogens is increasing in a connected world (Smith et al. 2014). However, mobility restrictions without proper (im)mobility infrastructure can be counter-productive or even disastrous. Take India's experience of the COVID-19 pandemic as an example. After the Indian government announced a nationwide lockdown in response to the pandemic on 24 March 2020, 7.5 million internal migrants flocked home from major cities across the country within two months. Thousands rushed in desperation to train and bus terminals to catch the last available service. Many more had to walk home for days due to the lack of public transport. Some died on route due to traffic accidents, heat, hunger and physical exhaustion (The Tribune India 2020; United Nations News 2020). The migrants had to embark on these dangerous journeys because there was no infrastructure of immobility to meet their needs once immobilized. Others sought to fill in the gaps by creating such (im) mobility infrastructure, such as the residents of Delhi who, on the outbreak of the crisis, developed "hyperlocal" networks to deliver food and collect information about migrants' needs (see Naik's contribution in Xiang et al. 2023, 1649–1653).

The importance of robust (im)mobility infrastructure is also positively illustrated by the relative success in containing the coronavirus in Taiwan, Hong Kong, Singapore, and South Korea. These societies faced special challenges in pandemic management given their very high level of population density and mobility, but they reacted effectively because they developed (im)mobility infrastructure quickly, partly by drawing on lessons from the SARS outbreak in 2003. In these places, it was relatively clear who could move and who could not, and under what conditions. The population was assured that both the mobile and the immobile would be able to meet their basic needs.

Yet, the broader political implications of (im)mobility infrastructure are far from clear and can be worrying. The Singaporean (im)mobility infrastructure is admirable for its efficiency, but had detrimental effects on social equality as it imposed draconian measures on migrant dormitories (Lin and Yeoh 2020). (Im)mobility infrastructure also raises fundamental questions regarding democracy and freedom. Liberal social thought has long regarded voluntary choice of mobility and immobility an elementary guarantor of freedom. Escape offers the last resort to a person under oppression, and staying home is a basis of personal security and autonomy. What does it mean when our mobility and immobility are conditioned, monitored and even forced by state authorities via ever more sophisticated infrastructure? As we witnessed in China in 2022, especially during the lockdown in Shanghai, (im)mobility infrastructure can become abusive and violent (Xiang 2023).

I therefore propose "(im)mobility infrastructure" as a topic that needs critical attention from migration studies and beyond. Contributions in this special issue take an important step in this direction. The papers do so by asking empirical questions: What happens

when "migration infrastructure" – the sociotechnical systems that sustain cross-border movements – fails to function? And, how does migration infrastructure respond to failures and challenges in diverse contexts? Although the case studies do not address (im)mobility infrastructure directly, they suggest a number of conceptual shifts that can help to broaden the concept of migration infrastructure into (im)mobility infrastructure. I outline these possible moves below.

1. From migration infrastructure to (im)mobility infrastructure

The papers in this special issue demonstrate that migration infrastructure can be remarkably resilient when faced with radical disruptions. Various actors in migration infrastructure, especially commercial intermediaries and migrants themselves, invented new practices in order to keep the infrastructure afloat (for instance, identifying new destinations and adopting more flexible business arrangements). Will migration infrastructure simply recover from interruptions and resume its prior form, or will it evolve into something else? I invite readers to consider perceiving migration infrastructure as part of (im) mobility infrastructure. Commercial brokers' and policy-makers' efforts to "rescue" migration infrastructure from breakdown (Koh, this issue) can be seen as an attempt to stabilize the broader (im)mobility infrastructure, making the conditions associated with the latter more liveable. Koh (this issue) and Zhang (this issue) describe how commercial brokers and state authorities reached out and provided psychological comfort to migrants who were anxious about immobility. In other cases, commercial intermediaries survived shocks by passing on costs to (would-be) migrants; migrants had to pay more, to wait longer, or to become more obedient to intermediaries. Indeed, this can be a central function of (im) mobility infrastructure: absorbing shocks for the sake of the established socio-political order, often at the cost of vulnerable groups (Xiang 2023).

The papers on these pages also remind us that migration infrastructure (which coordinates international migration) is underpinned by (im)mobility infrastructure (which focuses on the management of the physical movement of people and documents). For instance, migration intermediaries often include in their service "package" the arrangement for would-be migrants' travelling from the home village to clinics for health checks, to training centres to gain skill certificates, and to the airport. Intermediaries arranged these physical movements not only out of necessity, but also because this is an opportunity to impose authority over migrants ("You won't get the certificate unless I arrange it for you", as a migration intermediary in northeast China said to me). They therefore often forbid would-be migrants to make such arrangements themselves – a form of immobilization. The significance of managing local mobility is even more obvious at the receiving end of migration. Intermediaries and employers, in some instances, house migrant workers in dormitories with services and house rules to discourage them from moving freely after work. During the height of the pandemic, low-wage male migrant workers were confined in dormitories before and after work, while migrant female domestic workers, who are legally bound to live at their employers' residences, were discouraged from spending their days off in public places. If the state regulates migration through the instruments of passports, visas and biodata, commercial intermediaries, employers, and NGOs control or assist migrants to a great extent through the management of the migrants' *physical (im)mobility* rather than cross-border migration. Such management of

physical (im)mobility became even more important during the pandemic: Yeoh and Lam (2022), for instance, documented how the containment and enclosure strategy, which has always been part of the management of foreign workers in Singapore, became significantly harsher because of the pandemic.

2. The shifting relation between mobility and immobility

One of the significant insights that emerged from this special issue is that managing immobility has become an important activity – and a source of profit – for migration intermediaries, especially when the migration process is disrupted. In addition to the empirical material provided in this special issue, Xing and Xiang's (2022) recent work on the job placement agencies that specialised in domestic care workers in Beijing illustrates how immobility management became a priority for the business during the pandemic. The agencies dissuaded workers from leaving their home provinces until government regulation was relaxed because, otherwise, the agencies would be held responsible if the worker or the client (the employing family) became infected. The agencies arranged quarantine space when the migrants arrived in Beijing, and provided transportation in order to isolate the workers from public transport. Some agencies also requested employing families to allow live-in workers to remain after the completion of their contracts, in order to minimize the workers' movements. As a result of this intensified management of immobility, agencies gained more control over migrants.

It is always the case that the facilitation of mobility implies the prevention of unwanted mobility. The apparatus of immobility, including dormitories, camps, and detention centres, has long been central to sustaining mobile work regimes, such as those of construction and plantations. But what happened during the pandemic is that the management of immobility changed the forms of mobility, for instance in the unexpected flows from the Philippines and Indonesia to Chile (Chan, this issue). The management of mobility and immobility are not, in fact, symmetrical, mirror images of each other. Immobility management is often more complex than mobility management: As Zhang (this issue) demonstrates, the Chinese government and family members in China worked on the emotions of overseas Chinese students in order to persuade them not to return China during the pandemic. Immobility management can also be more consequential. While mobility is a relatively distinct behaviour that can be targeted, immobility can be anything and everything. Monitoring immobility has to work through the condition under which a person finds him/herself, which will have far-reaching and uncertain implications.

3. Human agency and political implications

Does (im)mobility infrastructure enable or disable migrants and citizens? This is the question that the notion of migration infrastructure was implicitly concerned with. It is important to reiterate that the concept of "migration infrastructure" was not meant to emphasize the fact that migration is mediated by infrastructure. The concept was meant to foreground a specific *dynamic*; namely, that international migration has become increasingly and intensively mediated. Migration is less and less a decision and action taken by migrants themselves, and more and more dependent on arrangements by complex social-technical systems. The question of how people *are moved* is at least as

important as the question of how people move. The evolution of migration is shaped by the development of such an infrastructure. Following this line, we proposed the notion of "infrastructuralization" (Xiang and Lindquist 2018) to describe the trend in which government agencies and commercial players invest in the development of such infrastructure – particularly in training, skill testing and certification – without creating new migration or employment opportunities for migrants. Teaching people to fish, regardless of whether there are fish in the water, became a mode of governance. Citizens are provided with a wide range of tools to achieve something, but what can be achieved is becoming ever more elusive. People spend more time, money, and energy to be "enabled", but only find their life being constrained.

The mixing of the enabling and disabling effects is particularly pronounced in the case of (im)mobility infrastructure during the pandemic. China provides a telling example. Effective (im)mobility infrastructure enabled China to keep the infection and death rate relatively low, and its economy open between 2020 and 2022. But the (im)mobility infrastructure became ever more intrusive and oppressive in 2022. An experienced social worker in China, who had led a number of nongovernmental rescue and relief missions, detected early signs of a famine in Shanghai in April 2022. His team tried to provide emergency relief, but had to give up because they could not find local partners in Shanghai. "Nobody was allowed to leave home" even if one had desperate needs or was intending to go to help others in desperation (online conversation, 24 August 2022). This is in contrast to what happened in Wuhan in early 2020, when the city was the first to be put under lockdown, and when (im)mobility infrastructure was less developed. At that time, volunteers' self-organized mobility played a critical role in delivering essential services at the initial stage of the lockdown. As public transport was suspended, thousands of citizens formed teams and set up apps to coordinate with one another to use their private cars to send patients to the hospital, to dispatch food, and to transport nurses and doctors between home and the workplace (Cao 2020). The spontaneous redistribution of mobility and coordination among citizens kept Wuhan alive in this most distressing time. By 2022, however, (im)mobility infrastructure had become so centralized that it had become violent in the sense that it denied any possibility of social self-organization, let alone resistance. The "White Paper" protests across China in late November 2022 were a direct response to this. While the protest was swiftly suppressed by the government, the movement may have long-lasting impacts: The movement gave rise to a new public consciousness, which is the awareness that citizens must protect life from becoming part of the infrastructure of state power.

(Im)mobility infrastructure could usher in a dystopia precisely because it can appear to be enabling, benevolent, and even indispensable. It could deeply penetrate ordinary citizens' everyday life, and turn the most mundane aspects of life, such as taking a walk, into an object of control. Conventional approaches in migration studies may be insufficient to address this. Indeed, (im)mobility infrastructure has destabilized the meaning of "mobility" itself. The fact that (im)mobility infrastructure constantly redistributes and mixes mobility and immobility across populations means that we have to move away from the focus on mobility itself, and will need to examine closely how mobility and immobility co-constitute each other in highly dynamic ways, which in turn create specific existential conditions that have deep ethical, social, and political implications. We need to analyse more closely the relations between technological, political, and affective

dimensions of (im)mobility. One starting point for doing so is the experience and the perception of the migrants and citizens who are caught up in (im)mobility infrastructure. Experience is by definition multifaceted and will enable us to be aware of multiple dimensions at the same time; perception often indicates the sharpest contradictions confronted by actors, which should help us to problematize ongoing developments. After ten years of most productive discussions on migration infrastructure, this may be the time to return to *migrants* as a focus of analysis in order to make migration studies a basis of engaged social critique in the post-pandemic world.

Disclosure statement

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