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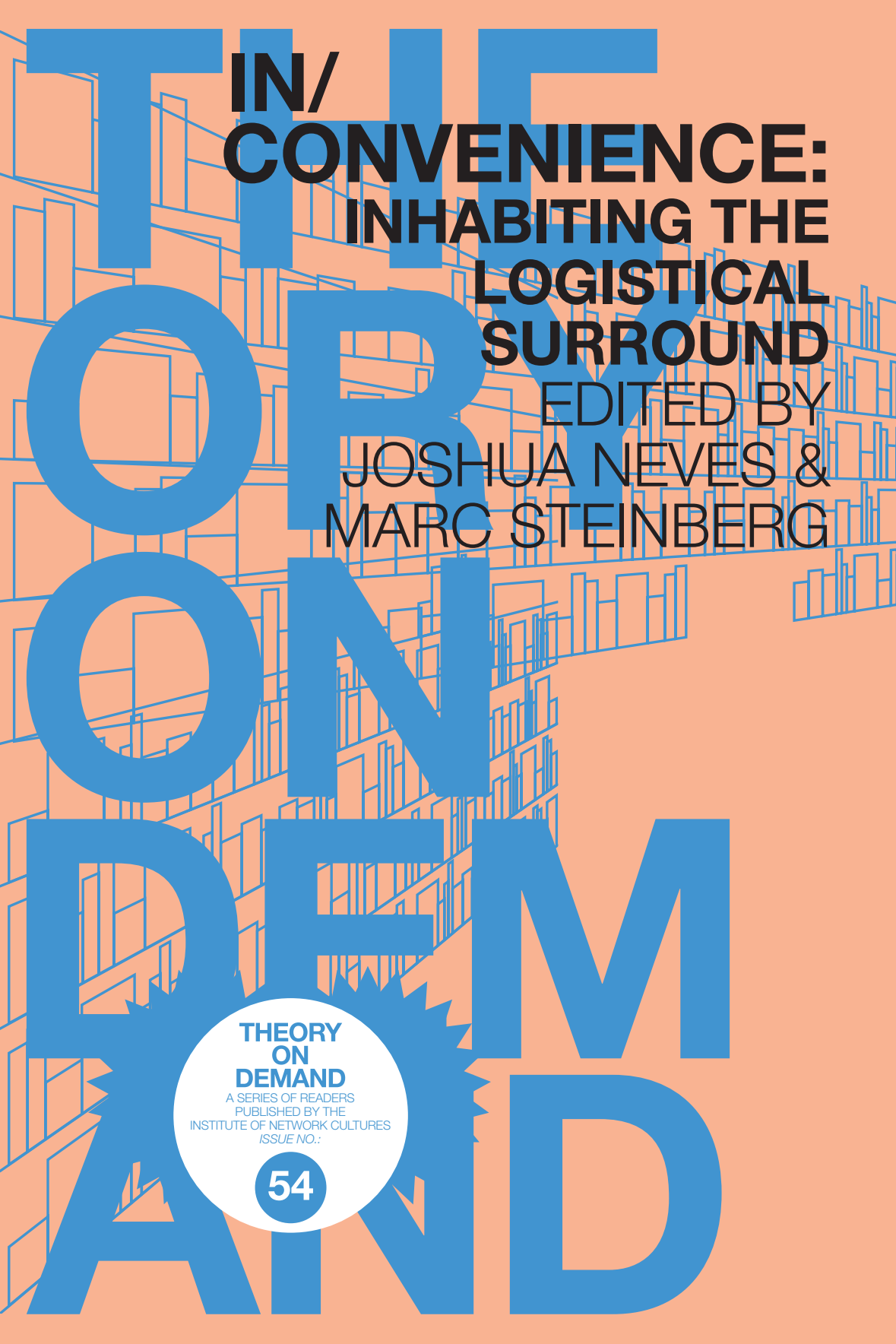
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INHABITING THE LOGISTICAL SURROUND

Theory on Demand #54
In/Convenience: Inhabiting the Logistical Surround

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Contributors: Neta Alexander, Armin Beverungen, Darren Byler, Liza Rose Cirolia, Maya Indira Ganesh, Tomasz Hollanek, Orit Halpern, Mél Hogan, Tung-Hui Hu, Steven Gonzalez Monserrate, Rahul Mukherjee, Joshua Neves, Susanna Paasonen, Andrea Pollio, Marc Steinberg

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CONTENTS

Introduction 5

Joshua Neves and Marc Steinberg

In Convenience 11

Joshua Neves and Marc Steinberg

Convenient-for-the-People Policing, Protected Consumer-Citizens and Infrastructures of Disposability in Northwest China 34

Darren Byler

The Resilient Situation: Adaptive Management, Finance, and Environment 48

Orit Halpern

Collectivizing Convenience? From Delivery to Logisticality 66

Armin Beverungen

Clouded Conveniences 82

Mél Hogan and Steven Gonzalez Monserrate

Waiting for 'Day Zero' 87

Tung-Hui Hu

Platform Economies, Reputational Stains, and the In/conveniences of Porn 99

Susanna Paasonen

Theorizing 'Anti-Content': On Sleep Apps and Horizontal Media 114

Neta Alexander

In/Conveniences of Mobile Payments: "Alternative Data" and the Distribution Infrastructures of Loan Apps **131**

Rahul Mukherjee

Beyond Inclusion: Glitchy Economies and the Promise of Platformization in African Cities **148**

Andrea Pollio & Liza Rose Cirolia

Easy Wins and Low Hanging Fruit. Blueprints, Toolkits, and Playbooks to Advance Diversity and Inclusion in AI **162**

Tomasz Hollanek and Maya Indira Ganesh

Biographies 176

BEYOND INCLUSION: GLITCHY ECONOMIES AND THE PROMISE OF PLATFORMIZATION IN AFRICAN CITIES

ANDREA POLLIO & LIZA ROSE CIROLIA

Digital Platforms Beyond the Discourse of Inclusion

Globally, the vocabulary of the platform economy is wide and diverse. Yet, in the African context, digital platforms tend to be framed within discourses of 'inclusion'. Providing financial services to the unbanked, integrating informal workers into structured labor regimes, and easing knowledge access for young students are some of the common promises articulated by platform advocates. Whether fin-tech, ed-tech, or health-tech, most African platforms claim to address observable exclusions linked to the developmental challenges facing African economies, cities, and dwellers.

The idea of inclusion, of course, is powerful and appealing. It caters to far-reaching global agendas, including the Sustainable Development Goals (SGDs), and more specialized ones such as the G20 Global Partnership for Financial Inclusion. Inclusion-speak enlivens the imaginations of ambitious startuppers who see Africa as the last frontier of platform innovations.[1] After all, digital technology has often been premised on the promethean faith that it can address seemingly intractable quandaries. In the late nineties, technology critics Richard Barbrook and Andy Cameron gave a name to this set of beliefs: the Californian ideology.[2] They charted how Silicon Valley had produced a culture of techno-solutionism, a bizarre alliance of progressive and neoliberal politics, which sought to find technical fixes to what may have appeared (or been constructed) as social problems. Ultimately, 'Californian ideologues' imagined that digital technology could do good (socially) while doing well (financially). Especially in the African context, where market-solutions to poverty had become the experimental terrain of what Ananya Roy more broadly termed 'millennial development', digital technology is seen as a panacea for inclusion.[3]

1 The notion of the market frontier is problematic yet a powerful emic category through which businesses operate to make risk manageable in Africa. However, for a reclaiming of the notion of frontier, see Francis B. Nyamnjoh, 'Incompleteness: Frontier Africa and the currency of conviviality', *Journal of Asian and African studies* 52.3 (2017): 253-270.

2 Richard Barbrook and Andy Cameron, 'The Californian ideology', *Science as culture* 6.1 (1996): 44-72.

3 Markets for Development, or M4D, provides a catchy buzz phrase for this ambition, formalized in many development programs including that of DFID. See Ananya Roy, *Poverty capital: Microfinance and the Making of Development*, New York: Routledge, 2010; Andrea Pollio, 'Acceleration, development and technocapitalism at the Silicon Cape of Africa', *Economy and Society* 51.1 (2022): 46-70.

Many critical scholars have usefully pointed to the limits—and indeed often predatory nature—of these experiments of digital enrollment[4]. Undeniably, such efforts reflect both neo-colonial assumptions (e.g. that African cities are a new and unregulated Wild West) and capitalist ambitions (market-making and extraction). However, our chapter takes a different approach. The notion of inclusion, we contend, expresses a linear vector of technological transformation: from being outside to being inside. For critical scholars, both inclusion and exclusion are problematic, leaving little room for optimism, maneuver or proposition. In contrast, our experience and empirical work suggest that other processes and other motivations are underway in Africa's booming digital economies. In the context of glitchy, fragmented, patchworked economic relations, platforms operate beyond the register of inclusion, enabling new forms of algorithmically-enabled ease, optimization and even pleasure—let's call it convenience. What values would a grammar of 'convenience' expose, beyond the one-way vector critique of 'inclusion'? Would the making of algorithmic convenience, as enabled by digital platforms, expand both our critical gaze and our understanding of the kinds of expertise and labor that fuels these inclusionary testbeds?

Before getting into a more detailed account of the conceptual switch that we propose—from inclusion to convenience—a brief example is in order here, one that sketches some answers to these questions. It is the story of a buoyant startup operating in the outskirts of Nairobi, Kenya. Funded by a Chinese expatriate who, like many of his peers, has chosen the East-African city to experiment with algorithmic business models, this story begins to shed light on the limitations of inclusion. And in doing so, as we will see, the example explicitly challenges simple framings of convenience. Here, we want to sit with the ambiguity that convenience brings with it, conceptually and practically. This does not negate critiques which see the enrollment in convenience as an (exclusive) luxury, glut or even laziness. Nor do we intend to ignore questions of extraction endemic to the making of conveniences for some, at times at the expense of others. In fact, as we will later show, moving away from a binary of in/exclusion, convenience specifically helps us to see the multiple displacements of effort and work now held by new bodies, systems, and processes.

Fixing Glitchy Networks

In the mid-nineties, Tiger left his hometown Shanghai to study business in the United States at one of the Ivy League schools that attract students from all over the globe. At the time, he remembers, the Jin Mao building, soon to become China's tallest skyscraper, was still under construction, its pagoda shape towering over Pudong, a rapidly changing semi-industrial area across the river from old Shanghai. By the time Tiger moved back to China in the early 2000s, armed with his business degree and a short but successful Wall Street career, things had drastically changed. China had joined the World Trade Organization, the Jin Mao building was surrounded by a multitude of even taller skyscrapers under construction, and the whole

4 Among others, see Daniela Gabor and Sally Brooks, 'The Digital Revolution in Financial Inclusion: International Development in the Fintech Era', in Kate Bayliss, Ben Fine, Mary Robertson (eds) *Material Cultures of Financialisation*, New York: Routledge, 2020, pp. 69-82.

country was teeming with opportunities for ambitious, foreign-trained talents like Tiger. In China, these returnees were amicably called sea turtles, *haigui*, a pun based on the homophony between 'returned from overseas' and the shelled reptiles that always find a way home.

Eventually, Tiger realized his success in selling cloud infrastructure services and enterprise software solutions in Beijing, in the early days of those digital economies. But a decade and a half later, now wealthy and experienced, he wanted more. The Chinese digital market was saturated, and his peers had lost that socialist drive that he himself had come to value and respect. China's technological ascendancy, Tiger explains, was made possible precisely by the capacity of homegrown entrepreneurs and firms to respond to the digital needs of the masses. True, these hardware and software companies had made staggering profits, created vehicles for massive surveillance, but they had also served the needs of what media scholar Jack Qiu has called 'working class network society'—the information have-less of the world.[5] Despite its contradictions and precariousness, the digitization of Chinese society had connected those who were, at the time, left out by profit-blinded Western digital corporations.[6]

At the very moment Tiger was thinking about finding new business challenges, Africa had started appearing in Chinese media. It was the time of the Belt and Road bonanza, and Beijing celebrated its cooperation with African nations through resounding announcements of infrastructure projects and lofty proclamations of a new era of South-South cooperation. Tiger had to see it for himself. He took a trip to Nairobi, a city that was celebrated as Africa's 'silicon savannah' in a country, Kenya, that had sealed several agreements with the Chinese government to build highways, railways, and digital corridors.[7] Leaving aside the many controversies of these large-scale projects, Tiger understood that, in a place like Nairoibi, most people had yet to be reached by these infrastructure systems. The last mile, the ultimate leg of connectivity, still fell short. Smoothly tarmacked highways and bypasses now crisscrossed the sprawling metropolis, but in many peripheral neighbourhoods, roads were still unpaved and so rutted that it was hard for a car to drive along. The same applied to electric networks, water pipes, and, ultimately, digital connectivity.

For Tiger, China's digital ascendancy held a lesson that could be exported and adapted to Nairobi's glitchy digital infrastructures. In 2019, he eventually relocated to Kenya, and opened a small Internet-service startup in the northeastern neighborhoods of the city. Here, along the highway that connects Nairobi to Thika, the landscape is dotted by master-planned estates, by unplanned, plotted urban expansions, but also by some of the densest and most populated suburbs in the city. These urban pockets host the bulk of Nairobi's lower-middle classes, in multistory concrete buildings that rise so close to each other that sometimes the crevices are

5 Jack Linchuan Qiu, *Working-class Network Society: Communication Technology and the Information Have-less in Urban China*, Cambridge, MA: The MIT Press, 2009.

6 Lin Zhang, *The Labor of Reinvention: Entrepreneurship in the New Chinese Digital Economy*, New York: Columbia University Press, 2023.

7 Michel Njeri Laura Wahome, *Fabricating Silicon Savannah*, PhD diss., University of Edinburgh, Edinburgh, 2020; Liza Rose Cirolia et al., 'Silicon Savannahs and Motorcycle Taxis: A Southern Perspective on the Frontiers of Platform Urbanism' *Environment and Planning A: Economy and Space* 55.8 (2023): 1989-2008.

less than a meter wide. Coupled with scarce investments by telecommunication companies, which installed far too few telephone towers to meet the bandwidth demands of these growing settlements, layers and layers of cement bricks render wireless mobile telecommunications technologies completely inadequate. Moreover, local mobile operators serve their customers with a "prepaid" business model based on selling tiny data packages at a marginal cost that is much higher than what people pay elsewhere in the world, when they buy large data bundles. As a consequence, people would consume online content sparingly. Data, Tiger realized, was inconvenient both in terms of physical access and in terms of its cost.

The irony was that mobile operators had been lured into the prepaid, small-data bundle business precisely by the global digital inclusion agenda. In the early 2000s, Global South-based telcos had switched to the convenience of small airtime packages precisely to "include" so-called bottom of the pyramid markets in places like Nairobi, where the majority of people could not afford to buy bulk quantities of airtime (or monthly subscriptions). In fact, mobile operators had followed the example of consumer goods multinationals—the likes of Unilever and Nestlé—in creating pocket portions of their products. Kenyans even have a specific name for this, the kadogo economy (kiSwahili for "small"): a slang with which the miniaturization of consumer staples is described, from data to soap. But this business model, critics argue, has allowed dominant companies to make staggering profit without needing to invest in large scale distribution infrastructure.

Tiger echoed this critique. Like many entrepreneurs, he'd turned himself into a makeshift ethnographer and spent months researching the digital data practices of lower-income urban dwellers. Admittedly, data provision was a difficult market with fuzzy boundaries. The inhabitants of northeastern Nairobi were not the poorest in the city by far. Neither were they truly middle-class, in a traditional sense. Their income oscillated, their indebtedness just as much. Most importantly, they were fluctuating consumers of those digital commodities that had come to represent social mobility: Instagram stories, Tik Tok shorts, YouTube videos, and, the most aspirational of all, a movie or a series on a streaming platform. Small prepaid data bundles didn't allow that, as locals could only afford 1 gigabyte per month on average, and a few episodes of a Showmax series alone would chew into half of it.[8]

Tiger's solution consisted in upending the prepaid business model. As an Internet-service provider, his company would sell time instead of data. That is, you could prepay to go online for a chosen amount of time, and with no data limitations. With a few shillings, you could spend a night binge watching a series, at a fraction of the cost charged by the mainstream mobile providers. Or you could doom-scroll an infinite number of Tik Tok videos made by famous Nairobi street comedians who cut their teeth by filming shorts in these same suburbs of the city. But you could also run a business. After all, the ground floors in the area are a maze of small shops and parlors. These have been included, indeed, in the financial ecosystem of mobile money, but rarely do they have access to the full possibilities of connectivity. Needless to say, Tiger's business proposition was a staggering success. In early 2023, less than two

8 Showmax is a South-African streaming service with a strong localization strategy in sub-Saharan Africa, producing content locally and partnering with mobile telcos.

years after starting his business officially, he had hundreds of thousands of subscribers, and a team of more than 100 locally hired employees.

How had he achieved this success? It was, in his view, a matter of last-mile infrastructure. Initially, he experimented with mobile antennas and Wi-Fi bridges. His company installed thousands of wireless routers, one on each floor of the buildings that were to be connected. This solution mimicked what Tiger had observed in the early days of the digital boom in Beijing, where lower-income residents had become accustomed to every public space in the city offering access to the Internet through Wi-Fi bridges and routers. But that model soon turned out to be unsuited for this part of Nairobi. The number of users was too high, the bandwidth was crowded and unreliable, and too many routers were an infrastructural mess for his network engineers. Eventually, Tiger's business turned to hardwired connectivity. He struck contracts with fiber providers in Kenya, and laid miles and miles of last-mile cables between small, room-sized data centers and their surrounding urban fabric. It became an incremental, trial-and-error testbed for an alternative mode of service delivery, on a large scale. Despite the difficulties, replacing Wi-Fi bridges with wires innervating every building meant that Tiger could now ensure reliability, scalability and redundancy. The convenience of reliable connectivity was not just a matter of the payment model but also a tangible solution to otherwise glitchy digital networks. Customers were happy, and their number kept growing.

Of course, the story of Tiger's low-cost Internet provider in the periphery of Nairobi does not yet have an epilogue. Small startups, even those that are already serving many clients, constantly fail and pivot. Often, as critical scholars argue, they are cannibalized by monopoly holders—big tech companies and big telcos—that incorporate frugal innovations into their businesses.[9] But even without an epilogue, this fledgling Internet startup already speaks to the permutations and adaptations of the promise of convenient connectivity, as well as its contradictions. Let's look at two examples.

Tiger's core business has been to serve an underserved mass market with access to data. But now, with hundreds of thousands of users logging on and off the network on a daily basis, the business of selling data is also a data business in itself. Even without accessing private personal data and without tracking actual online behaviours, Tiger has gathered massive amounts of information about his users; he can now delineate the market profiles of a segment of Nairobi's society that defies easy characterization. In turn, as has happened with mobile money, this data can become, for example, an alternative credit scoring system to offer the kind of pricey small loans that Nairobians rely on to cope with the precarity of their economic lives.[10] And much else. As sociologists Marion Fourcade and Kieran Healy remind us, digital companies often build personal data dragnets without a specific goal in mind, in case these troves of information may be monetized at a later stage.[11] Tiger is now considering using

9 Laura Mann and Gianluca Iazzolino, 'From Development State to Corporate Leviathan: Historicizing the Infrastructural Performativity of Digital Platforms Within Kenyan Agriculture', *Development and Change* 52.4 (2021): 829-854.

10 Kevin P. Donovan and Emma Park, 'Knowledge/seizure: Debt and data in Kenya's zero balance economy', *Antipode* 54.4 (2022): 1063-1085.

11 Marion Fourcade and Kieran Healy, 'Seeing like a market', *Socio-economic review* 15.1 (2017): 9-29.

these proxied credit profiles to offer buy-now-pay-later finance to his existing customer base. These schemes are not bad per se, but as their critics argue, they can become very extractive, with high interest rates, and unsavory practices of debt shaming. In other words, convenient infrastructures may well become the rails of predatory inclusion.[12]

Another example of Tiger's expanding business model, however, points to a different direction of his convenience-driven project. In 2021, he met a young entrepreneur, Jinny, who was planning to launch an e-commerce platform, importing the Pinduoduo model from rural China into peri-urban Kenya. Pinduoduo, one of the fastest growing e-commerce giants in China, had made its initial fortune by offering group-buying options for farmers.[13] On the heels of Pinduoduo's success in China, Jinny was working on a similar service for Kenya. But while she had a clear vision for the platform itself, she needed support for organizing the last-mile infrastructure of group buying—from the big warehouse where bulk stock is received, to the hotspots where commodities are distributed to group-purchasers. Tiger already had that infrastructure in place. His data centers, after all, already functioned as infrastructural hubs for the communities that they served. And he already employed part-time riders to move cables and equipment around. All Tiger and Jinny needed to do was join forces. And so they did. Now their customers, including the numerous small retailers that are scattered in the area, can group-buy staples like flours and cooking oil at a third of the price they'd pay from middlemen. It's a fledgling super-app, they explain.[14] In other words, the inclusionary but pricey kadogo economy has been turned on its head by the deeper convenience of a less glitchy distribution infrastructure, and an integrated logistical system that Tiger and Jinny plan to further expand in the future to include other staples like drinkable water.

As we hinted at earlier, being 'in convenience' for some—even for many, in this case—is often predicated on slight adjustments or displacements of labor, spaces, energy, profits, affects, etc. From the electric grid to the gel batteries that rest in Tiger's data centers to provide redundancy in case of electric failure, from small shops to dark stores and to the riders that make commodities move, convenience begins to foreground the limitations of the inclusion/exclusion framing.

From Inclusion to the 'Value(s)' of Convenience

The story of Tiger and Jinny's startup experiments with convenient connectivity and group-buying e-commerce speaks to our interest, as researchers of infrastructure in urban Africa, to move beyond one of the dominant vocabularies through which both advocates and critics of platform economies frame these kinds of experience: inclusion. Startups, venture capitalists,

12 Kevin P. Donovan and Emma Park, 'Algorithmic intimacy: The data economy of predatory inclusion in Kenya', *Social Anthropology/Anthropologie Sociale* 30.2 (2022): 120-139. See also Rahul Mukherjee's chapter in this volume.

13 For a broader critique of platform experiments at the rural margins of the Chinese economy, see Lin Zhang, 'Platformizing family production: The contradictions of rural digital labor in China', *The Economic and Labour Relations Review* 32.3 (2021): 341-359.

14 For a definition, see Marc Steinberg, Rahul Mukherjee, and Aswin Punathambekar, 'Media power in digital Asia: Super apps and megacorps', *Media, Culture & Society* 44.8 (2022): 1405-1419.

and sometimes even governments claim that platform-mediated inclusion (into more stable labor markets, new financial systems, payment standards, and so on) is a win-win process. It creates value for those who monetize the platforms, whatever their data-driven business model, but also for those who become entrepreneurs of and on the platform.

Take Uber, for example. We have a vivid memory of the first days in which Uber started operating in Cape Town, its promotional posters professing that a new generation of self-employed drivers would benefit from the new platform. Now included in an algorithmic system of gig work distribution, drivers could count on more flexibility, better income opportunities, access to asset financing, insurance coverage, and other perks that they would have not been able to access as informal, or even illegal taxi operators.[15] It was a powerful pitch. That promise, of course, was more honored in the breach than the observance.[16] But the example of Uber adopting the developmental vocabulary of inclusion to embed its offering in the Cape Town context is telling: even a global platform company had adapted its value proposition to claim that they were fixing a broken system (the private mobility infrastructure) of an African city. And that they were doing that through the platform-mediated inclusion of underemployed workers. At the peak of their launch marketing campaign, Uber even started sharing the personal empowerment stories of their drivers to their customers. These were short videos of how these workers—often women, migrants, and formerly disenfranchised South Africans—had gone from being excluded to being included in the South African economy.

Ridden as it is by contradictions, legal challenges, and failing business metrics, Uber is a fraught example. But it's also the tip of the iceberg in the world of digital platforms, big and small, homegrown and international, private and public, that we have been researching with other colleagues over the last half decade in different African cities.[17] These digital startups propose a pitch that is not too dissimilar to what Uber claimed in the heyday of its African launch: doing good (by fixing urban infrastructure and creating more inclusionary markets) while doing well (as a profit-driven company). These business arguments vividly resonate with the developmental language of inclusion, which has dominated the discursively powerful work of the World Bank and other development finance institutions over the last two decades at least.

Through experiments with inclusion, the Global South, and Africa in particular, have been recast as a new terrain of opportunity for California-ideology inspired businesses and humanitarian organizations that want to do good while doing well.[18] One domain of inclusion that

15 Andrea Pollio, 'Forefronts of the sharing economy: Uber in Cape Town', *International Journal of Urban and Regional Research* 43.4 (2019): 760-775.

16 Mohammad Amir Anwar, Jack Ong'iro Odeo, and Elly Otieno, '"There is no future in it": Pandemic and ride- hailing hustle in Africa', *International Labour Review* 162.1 (2023): 23-44; Pádraig Carmody and Alicia Fortuin, '"Ride-sharing", virtual capital and impacts on labor in Cape Town, South Africa', *African Geographical Review,* 38.3 (2019): 196-208.

17 Cirolia et al., 'Silicon Savannahs and Motorcycle Taxis'; Andrea Pollio, Liza Rose Cirolia, and Jack Ong'iro Odeo, 'Algorithmic suturing: platforms, motorcycles and the "last mile" in urban Africa', *International Journal of Urban and Regional Research* 47.6 (2023): 957-974.

18 Adam Moe Fejerskov, *The Global Lab: Inequality, Technology, and the Experimental Movement*, Oxford, UK: Oxford University Press, 2022.

has been more forcefully promoted (and also critiqued) has been that of digitally enabled financial markets—the fintech sector, and its role within the World Bank-sanctioned global 'financial inclusion agenda'. With the lowest banking and legacy financial service penetration in the world, African countries are indeed a prime laboratory for fintech experimentation. Its optimistic advocates claim that financial inclusion generates wealth, helps people out of poverty, and turns them into potential entrepreneurs, all the while generating new investment assets for global financial capital. Its critics point to the violence of adverse incorporation into vicious cycles of unsustainable debt, the financialization of everyday life, especially of poor households, the neo-colonial logics that underpin new datafied risk scoring techniques, and, ultimately, the fact that financial inclusion is not a good business after all, but a failed neoliberal experiment.[19]

These critiques are crucial. And yet, the notion of inclusion upon which both critical warnings and uncritical advocacy seem to rest only captures one of many vantage points from which to observe these algorithmic experiments. Economic anthropologist Janet Roitman, for example, explains that the focus on inclusion risks overshadowing the multiple and ingenious forms of value creation, rather than just extraction, that are beholden to platform-enabled financial services.[20] A linear mode of thinking about technology, she writes, primes much of the critique of the platform economy in the Global South. This linearity is not just geographical—from the North to the South—but also empirical: it assumes that platformed services simply enroll those subjects and systems that were previously, somehow, 'excluded'.

But let us return for a moment to the example of Tiger and his business, which he framed as a challenge to the motifs of inclusionary digital markets. What we see in this example, one of many we researched over the years, is that platform companies in African cities are already operating far beyond the framing of inclusion, even when the language remains more or less aligned. Their actual promise? Optimizing and fixing broken infrastructure systems. Making access to goods and services more convenient, in spite of the fractured nature of urban life. What would happen to our understanding of platform economies in the continent, if for a second, we took at face value the perspective of entrepreneurs like Tiger and Jinny, or even of companies like Uber—a perspective that, however problematic, tells us that they are fixing glitchy, broken systems, and making life more convenient?

As flagged in the introduction, platform optimization also names one easily forgotten yet fundamental rationality that animates such experiments and processes: the desire for ease (and, in the case of Uber, reliability and safety). In other words, we draw on and expand the vocabulary of convenience to engage the platform operations we have encountered during our research, which pledge to make things 'easier' for Africa's urban citizens. In fact, scholars have long posited that infrastructure and service delivery networks in urban Africa are

19 See Philip Mader, 'Contesting financial inclusion', *Development and Change* 49.2 (2018): 461-483; Gabor and Brooks, 'The Digital Revolution in Financial Inclusion'; Nick Bernards, *A Critical History of Poverty Finance: Colonial Roots and Neoliberal Failures*, London: Pluto Press, 2022.

20 Janet Roitman, 'Platform economies: Beyond the North-South divide', *Finance and Society* 9.1 (2023): 1-13.

glitchy and incomplete, where they exist at all, and constantly reworked and repaired through collective and individual practices of material improvisation.[21] For Tiger, for example, these glitches manifested in the paltry availability of Internet access in Nairobi's most populous neighborhoods—and presented a business opportunity to reduce them. More generally, as we will see in the following pages, platform-based optimization, whether in the forms of a government system for revenue collection or a remittance application, is predicated on heightening the convenience of hitherto complicated, fragmented, and frictional infrastructural systems.

Frictions of Everyday Life in Urban Africa

Thinking about the critiques of the Amazonification of everyday life in cities like San Francisco and London, maybe one day it will be possible to look at residents of African cities and ask 'how much easier do you want everyday life to be?'. But we are far off from this. Platforms have, of course, expanded to many urban economies (Kenya's M-Pesa being a commonly cited example).[22] From e-commerce to crypto wallets and on-demand services, efforts to expand the frontiers of platform capitalism are indeed prevalent. Platforms have also been used to augment social and political life in African cities—think of the use of WhatsApp for political party mobilization, reliance on social media platforms by prophetic churches, or the rise of dating and music apps of various sorts.

While remaining critical of techno-solutionism, we can also concede that the sorts of problems tech seeks to 'solve' (even if often unsuccessfully) are real problems and not merely elite agitations. Notwithstanding considerable diversity across contexts and spaces, it is widely acknowledged that African cities experience a range of shared challenges. These challenges often stem from a knotted set of processes: histories of colonization, post-independence nation-building projects, violent structural oppression within global geopolitical systems, systematic underfinancing of key infrastructures. These challenges are not abstractions; they impact people's everyday life.

The result is that cities are replete with processes that are fragmented, overlapping, inefficient, traumatized, and heavily reliant on the unpaid work of everyday people: citizens of all classes, including officials, business owners, and scholars. In this context, many celebrate the improvisations and 'make do' or adaptive tactics—as people manufacture livelihoods, devise systems to access services, or build their homes. These practices are framed as resilience, ingenuities, or frugal innovations. No doubt they are, and yet this work, while valiant in the face of duress, also consumes time, resources, and energy. These are glitchy economies causing dis-ease for many. From sitting in traffic for hours daily to navigating complex, redundant bureaucracies for registering pretty much anything (vehicles, businesses, births), to managing the ever-changing

21 Prince K. Guma, 'Incompleteness of Urban Infrastructures in Transition: Scenarios from the Mobile Age in Nairobi', *Social Studies of Science* 50.5 (2020): 728-750. See also discussion in Jonathan Silver, *The Infrastructural South: Techno-Environments of the Third Wave of Urbanization*, Cambridge, MA: The MIT Press, 2023.

22 Nancy Odendaal, 'Platform urbanism and hybrid places in African cities,' in Alessandro Aurigi and Nancy Odendaal (eds) *Shaping Smart for Better Cities: Rethinking and Shaping Relationships Between Urban Space and Digital Technologies*, London: Academic Press, 2021, pp. 203-219.

currency fluctuations that burden all manner of financial transactions, such celebrations normalize disruptions in the infrastructures that support everyday life and economies—dry taps, internet shutdowns, and rolling black-outs.

In these circumstances, African elites, middle classes and expatriate travelers have attempted to isolate themselves from some of these glitchy, taxing, and frictional systems. We can be critical of the islands of access created through boreholes and water tanks, VPNs and multiple sim cards, elevated highways, generators, and solar panels—all manner of technologies aimed primarily at easing access or living in convenience.[23] We can, at the same time, consider the incredible work (and indeed expense and expertise) that also goes into these (elite) practices of attending to what we could call the inconvenience of traffic, queues and service delivery failures.

What the case of Tiger only alludes to is the way in which platforms aim to ease the everyday frictions of urban life we just discussed. To better understand this, we must turn to the users of these platforms, whether enrolled by choice or not. This allows us to see past the developmental evangelism espoused by the creators/managers of the platforms towards a view of optimization that centers users. How might one look at optimization of a system, and the convenience that it allows, as something valuable in the context of durable strain and costly interactions which constitute many aspects of life in African cities? What, in turn, does the frame of convenience (rather than inclusion) allow us to see that critics and scholars focused on splintering or make-do or resilience overlook?

Thinking with Platform Optimization

Let us move, then, from urban enclaves to other populations who benefit from the ease afforded, in this case, by platform-enabled digital transactions. The following examples are once again anecdotal, but they allow us to reflect on the kinds of mundane ameliorations that platform processes yield in the context of inconvenient systems, and the displacements of labors that follow from the processes of optimization.

We begin this exploration in a provincial capital, Kisumu, situated on the Kenyan banks of Lake Victoria. The lobby of the Kisumu City Authority, while now technically a part of the County administration, is not unlike many smaller local governments in Africa. Its three levels, accessed through dark wood balustrades, hold a series of offices for the various technical functions of the city, including trash collection within the CBD, non-motorized transport and building plan approval, among other intermediate functions. In terms of staff, the largest department located in this building is revenue collection. Not only does the activity occupy several offices, but in fact the entire first floor and courtyard.

23 What scholars would call the 'splintering' of urban infrastructure. See Stephen Graham and Simon Marvin, 'Splintering urbanism at 20 and the "Infrastructural Turn"', *Journal of Urban Technology* 29.1 (2022): 169-175.

When entering the building, maybe to pay your monthly property rates or annual business license, you are immediately greeted by the Kenya Commercial Bank Tellers, with lines at each that stretch back towards the entrance. There is a TV to keep the waiters occupied, in the intense heat that is common in the Lakes region. After payments are made, these lines slowly trickle into the building's courtyard. Here, there is another set of waiting areas, where people wait - again - in a spiraling line in the little shelter provided by the shade of the building. And again, people line up to have the payment logged and be provided with a city receipt to confirm payment. Depending on the time of day, month and year, this process can take anywhere from half an hour to several hours. And such a process is repeated for each payment.

In the last ten years in Kenya, as the case of Tiger indicates, there have been shifts towards the digitization of payments in many sectors, including for state services.[24] This is, of course, not only the case in Kenya. Many African cities are transitioning onto platforms to support online payments, citing 'digital dividends'.[25] These efforts are framed by their donors and higher levels of government as 'good governance' measures, often against the backdrop of tropes of petty corruption in the process of fee collection. It aligns with the focus of many donors on raising sub-national revenue streams. However, we would argue that their value sits less in the panoptical disciplining of sub-national functionaries. If we orient ourselves towards the citizen—one of the user groups of these platforms—the value sits in the alleviation of waiting in multiple lines, collecting slips, and losing half of a day or work or rest. In interviews with people waiting in lines, most on their phones responding to messages or watching clips, they lament the taxing experience, taking turns standing by a fan which once had the capacity to swivel. Since we first visited Kisumu in 2018, most of these people are now able to use their phones to pay these fees. They no longer have to travel to Kisumu's city center to pay for such fees, or spend their day moving from desk to desk. These affordances are hardly an unearned luxury, but rather a much-needed relief.

Another example of an opaque and frustrating system which platforms promise to ease is that of remittance corridors. From Kisumu, we now move back to Cape Town. The city is home to migrants from across Africa, many of whom need to send portions of their earnings to relatives in their hometowns and villages. The market for intra-Africa remittances has been dominated by Western Union, which has a reputation of being costly and extractive.[26] Until recently, therefore, sending remittances through this existing financial infrastructure has not only been expensive—with significant losses accruing to already very precarious people—but also time consuming, with transactions taking days to clear. When a family needs money urgently, this can be very stressful.

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24 Romanus Opiyo et al., 'Attaining E-democracy through digital platforms in Kenya', in T.M. Vinod Kumar (ed) *E-Democracy for Smart Cities*, Singapore: Springer, 2017, pp. 441-459.

25 For an example of this discourse, see World Bank, *World Development Report 2016: Digital Dividends*, Washington, DC: World Bank, 2016.

26 Peter Mudungwe, *Leveraging the African Diaspora for Development*, The Hague: African Diaspora Policy Centre, 2017, https://www.diaspora-centre.org/wp-content/uploads/2017/10/Leveraging_Diasporas_for_Development.doc.pdf; Daniel Folkinshteyn, Mark M. Lennon, and Tim Reilly, 'The Bitcoin Mirage: An Oasis of Financial Remittance', *Journal of Strategic and International Studies* (2015), https://ssrn.com/abstract=2601621.

It is therefore not surprising that remittances at large, and intra-Africa remittances specifically, have come to be a fertile site through which platform optimization finds traction. On the back of Cape Town's self-declared position as both start-up and fintech capital of Africa,[27] Cape Town-based platforms like Mama Money and Mukuru have attempted to reduce costs (down to around 5%), improve the speed (within the hour), and enable migrants who do not have advanced documentation access (through reduced KYC).[28] The founders boast social visions, the former started by two men who met en route from a festival in the desert of South Africa and the latter by a Zimbabwean-born, South African-educated, and London-based entrepreneur and rock musician. While the founders' explanations are replete with questionable development jargon, the people who use the platforms praise them. Betty, a Congolese businesswoman who sells Cape Malay curries and samosas at a local market in Cape Town explained to us how the platform allows her to send money from wherever she is, just using her phone: no more lines, abusive tellers, or endless return visits to track the payment.

Many flags can be raised. And of course, we should be attentive to the ways in which the enrollment of taxpayers, migrants, and many other economic subjects can be exploited through (financial) platforms of different nature—not to mention who is excluded. At the same time, it is undeniable that such platforms ease certain aspects of urban life beyond the enclaves of the wealthy middle class, enabling people to overcome the enduring strain and glitchy nature of bureaucratic and economic processes. In this case too, convenience displaces the burden of work required to move money from informal and small-scale money agents to dedicated programmers and data scientists whose (well-paid) labor is necessary to ensure seamless transactions between financial institutions, telecommunication providers, last-mile outlets and end-users.

Convenience Reconsidered

Notwithstanding these vignettes, and perhaps unlike many parts of the world, few would call African cities convenient. Even among the wealthy who can afford cleaners and childcare, given the sheer scale of infrastructural fragmentation—fuel scarcity, traffic jams, internet shutdowns—money's capacity to ease meets its limits. We did not intend, in this chapter, to present African cities as somehow exceptional, immune to the expansion of platform capitalism or to capricious overconsumption. Rather, what we hoped to do was adopt a different starting point for charting the value(s) of convenience across diverse geographical contexts.

Often relegated to the binary between exclusion and inclusion, and to the warnings of predatory, or so called 'adverse' inclusion, platformization processes underway in African cities call for a different grammar of analysis and a different orientation towards these emerging economies (as well as the people who animate them). As other authors in this volume argue,

27 Andrea Pollio and Liza Rose Cirolia, 'Fintech urbanism in the startup capital of Africa', *Journal of Cultural Economy* 15.4 (2022): 508-523.

28 See Liza Rose Cirolia, Suzanne Hall, and Henrietta Nyamnjoh, 'Remittance Micro-Worlds and Migrant Infrastructure: Circulations, Disruptions, and the Movement of Money', *Transactions of the Institute of British Geographers* 47.1 (2022): 63-76.

convenience can be a strategically awkward category of analysis, one that sits ambiguously between critique and recognition that not all forms of ease are unnecessary or consumeristic indulgence. In fact, the examples in this chapter speak to the variegated forms of optimization that do in fact transform glitchy and vexing urban systems and infrastructure in Africa. Ultimately, in addition to the acknowledgement of these optimized fixes, convenience also allows us to see some of the displacements or the shifts that platform economies entail: from humans to servers and data centers, from shops to dark kitchens, from one type of labor to another. However one may feel about these movements, the lenses of convenience, and especially the perspective that convenience offers us from African cities, brings to the fore again the technological ambivalence of platformization and the need to engage the full gamut of possibilities therein—possibilities that are too often foreclosed both by the makers and the critics of platforms.

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Theory on Demand #54
In/Convenience: Inhabiting the Logistical Surround
Editors: Joshua Neves and Marc Steinberg

Convenience is the feeling and aspiration that animates our platformed present. As such, it poses urgent techno-political questions about the everyday digital habitus. From next-day delivery, gig work, and tele-health to cashless payment systems, data centers, and policing – convenience is an affordance and an enclosure; our logistical surround. Driving every experience of convenience is the precarious work, proprietary algorithms, or predatory schemes that subtend it. This collaborative book traces how the logistical surround is transformed by thickening digital economies and networked rituals, examining contemporary conveniences across a wide range of practices and geographies. Contributors examine the ineluctable relation between convenience and its constitutive opposite, inconvenience, considering its infrastructural, affective, and compulsory dimensions. Living *in convenience* is thus both a hyper visible manifestation of so-called late capitalism and a pervasive mood that fades into the background (like the data centers that power it). Bringing the agonistic relation of in/convenience to center stage, this volume analyzes the logistics of delivery, streaming porn, cloud computing, water infrastructures, smartness paradigms, convenience stores, sleep apps, surveillance, AI ethics, and much more – rethinking the cultural politics of convenience for the present conjuncture.

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