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'Human ATMs': M-Pesa and the expropriation of affective work in Safaricom's Kenya

Emma Park

'The customers, they know if you're stressed, it's not good,' Nyawira told me. 'If you're not nice with them, they know. They have to come here and find you happy, otherwise it's bad for business.'[1] At the time, Nyawira worked as an M-Pesa agent for Safaricom, managing a small green kiosk in Zimmerman Estate, one of the many lower-income neighbourhoods that today flank Nairobi's periphery. M-Pesa is a mobile-to-mobile money platform that allows customers to transfer money electronically, later withdrawing it as Kenyan shillings at one of the tens of thousands of kiosks that dot Kenya's landscape. As an M-Pesa agent, Nyawira's primary role is moving money in and out of the system, accepting deposits and processing withdrawals through the window of her shop. Through this opening she shouts out greetings and exchanges gossip with passers-by, neighbours, friends and fellow 'entrepreneurs' – a favoured category in Kenya today. This everyday labour is not only crucial to ensuring the operations of the network but, by virtue of her role in gathering data, it is also central to Safaricom's capacity to develop new technological 'innovations'.

From Nyawira's perspective, successfully executing this work requires that she carefully calibrates her moods. This, too, takes work. In 2014, when I was living with Nyawira and spending afternoons in her shop, she was in a hard place. She had a complicated relationship with her in-laws – she had no rights as far as they were concerned. While she had given birth to their first grandson, his father, Mwangi, had not gone to visit her parents, nor negotiated the terms of their union, the important first stages in initiating *mahari*, or bridewealth payment. As a result, Nyawira's family could not intervene on occasions when her partner, or his family, treated her unkindly. These issues were never far from her mind.

Living quarters were cramped. Her apartment, which she shared with her son and his father, was next to that of her prospective in-laws, who also routinely took care of her son. Her shop was just outside the gate of the apartment complex, and she was constantly under the surveillance of Mwangi's mother. She had distant plans to travel to the United Arab Emirates, where many young Kenyans migrate in the hope of pursuing more desirable futures. But this would entail a series of sacrifices. Not least, she would have to leave her son behind. While this aspiration hovered in the background of conversation, the temporal horizons structuring her daily life were more constrained. Her commission from

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[1]Fieldnotes, 7 August 2014.

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Safaricom, which hovered around Ksh 10,000 per month, barely covered her expenses, which included the Ksh 6,000 per month it cost her to rent the kiosk. She often paid a portion of the rent for the apartment, although technically this was Mwangi's responsibility, and contributed money for school fees. All of this on top of buying groceries, prepaid electricity tokens, fuel for her partner's lagging taxi business, and clothing for her son. Her efforts to meet all of these expenses were a constant struggle and source of 'stress'.

Nyawira's attempt to leverage social networks into a livelihood is a struggle shared by the over 100,000 M-Pesa agents working across the country. As I argue, this affective labour enables social and technological maintenance work that, while essentially free for Safaricom, underwrites M-Pesa and Safaricom's success. In making these arguments, I contribute to a growing literature on mobile money. Keith Breckenridge has explored how biometric identification schemes attached to mobile money are poised to enable the centralization of authority in Ghana (Breckenridge 2010). Others have moved from design to use, emphasizing how users integrate mobile money into dynamic repertoires of savings, investments and sociality (Kusimba *et al*. 2016). Working in Western Kenya, Sibel Kusimba demonstrates how mobile money articulates with other value forms, revealing how people slot their use of mobile money into existing repertoires to manage economic and social demands of varying temporalities (Kusimba 2018).

This scholarship focuses on either 'mobile money professionals' – the recognized experts within the industry – or on users (Maurer *et al*. 2013: 53).[2] By contrast, this article primarily explores the work of M-Pesa agents. The work of feminist Marxist critical theorist Nancy Fraser offers a useful point of departure for my argument. Building on Marx's key insight that behind the 'sphere of exchange' lies the 'hidden abode of production', Fraser argues that behind Marx's 'hidden abode' lie domains more hidden still that are central preconditions for production: affective labour, ecology and political power (Fraser 2014: 57).[3] Locating these 'backstories', she argues, is critical to understanding contemporary forms of accumulation and the politics they entail. Put simply, it is not merely through labour *exploitation* that capital accumulates; it is also through the capture of surplus value through the *expropriation* of feminized and racialized work, nature's 'free gifts', and political interventions.

On one reading, the commission-based fee structure, long working hours and lack of protections suggest that M-Pesa agents are best understood as exploited labour. However, a focus on the work required to build and maintain the social and material networks on which Safaricom depends reveals a more complex dynamic. This work is uncompensated. It is 'treated as costless in capital's accounts, [and] it is expropriated without compensation or replenishment and implicitly assumed to be infinite' (Fraser 2014: 63). In the pages that follow, I take this argument in new directions. Safaricom, as I show, actively works to harness and expropriate the 'communicative pathways' that M-Pesa agents construct and maintain in the pursuit of both price cutting and profit generation

[2]For a partial exception, see Maurer *et al*. (2013: 53).

[3]For another recent example of an argument along these lines, see Tsing (2013). There is a robust Africanist literature that examines capitalism's reliance on social reproduction backstopping low wages. On Kenya, see Cooper (1987) and Berman (1990).

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(Elyachar 2010: 460). Their labour is akin to 'phatic labour' – those forms of uncompensated work that generate a 'social infrastructure on which other projects oriented around the pursuit of profit … [can] be constructed' (*ibid*.: 453). In other words, Safaricom's success depends on 'phatic labour' remaining not only uncosted but also creative and skilful – a process we can see as incorporating upfront the affective work that Fraser deems to be backstage. The work of Nyawira and other agents, then, is both the front story and the backstory of contemporary modes of accumulation unfolding in Kenya.

This dynamic extends beyond Safaricom's labour regime, capturing the majority of Kenya's adult population. Safaricom understands users' interactions with its platforms as an asset for the company, which capitalizes not only on fees but on 'accessing and leveraging vast troves of transactional data' (Maurer 2015: 129), rendering users 'everyday designers … [of] mobile money' (Maurer 2012: 598, 592). As Kate Meagher argues in another context, these data are used to develop 'frugal innovation[s]' as designers draw on 'locally embedded knowledge and networks' to create new markets (Meagher 2017: 18). These people who 'work but need not be paid' generate 'value' through 'their production of information' that is extracted and 'treated as a resource that can be monetized' (Wark 2019: 54). Indeed, as everyday relations are commuted into service use and move from Nyawira's kiosk to Safaricom's headquarters, they are refined into data that form the basis of new services and, ultimately, the consolidation of new markets and frontiers of accumulation through the appropriation of 'marginal gains' (Guyer 2004). If this model sees users as hybrids – consumers and producers – Nyawira's hybrid work is captured linguistically by industry insiders who refer to M-Pesa agents using an odd but telling nomenclature: 'human ATMs'.

The term 'human ATMs' is revealing. In the global North, the automated teller machine (ATM) was designed to ease banking transactions, enabling customers to deposit, withdraw and transfer funds without recourse to a human teller, who is costly to management and not always available (Batiz-Lazo 2017). Despite occurring away from the factory floor, this was a classic story of automation: the actions of the human worker were delegated to the machine, displacing that worker in the process. This transformation relied on the presence of an efficient electricity grid, coordinated computing, and the proliferation of bricks and mortar banks. The human ATM, then, refers to a peculiar, historically specific hybrid.

In Kenya, ATMs could not simply replace human tellers: the limited reach of financial and electricity infrastructures precluded such a possibility. In this austere infrastructural geography, humans, rather than being replaced by machines, are taking the place of never fully networked infrastructures.[4] Celebratory narratives of M-Pesa specifically cite Kenya's limited infrastructural reach and lax regulatory structures in accounting for the success of the mobile-to-mobile money platform. As Maurer notes, observers 'attribute the rapid dissemination of the mobile phone [and mobile money] to infrastructural leapfrogging: there is no need to lay cables, no large-scale infrastructure projects required'

[4]This argument works at an angle to that of AbdouMaliq Simone. Rather than posit 'people as infrastructure', here I am concerned with the political, economic and regulatory structures that force people to act *infrastructurally* (see Simone 2004). I would like to thank Gabrielle Hecht for pointing out this distinction.

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(Maurer 2012: 593). In this framing, M-Pesa, a banking service that operates on the back of a mobile telephone network, is an ur-example of technological leapfrogging. Pundits of mobile money argue that these new networks have enabled new forms of 'financial inclusion' for users by 'banking the unbanked'. As I will show, however, narratives of technological leapfrogging and 'financial inclusion' elide the reliance of the digital economy on older formations of precarious, often feminized, reserves of labour power from which surplus is seized and whose progenitors can be easily discarded in the interest of profitability.

The first section of this article outlines how international financial institutions (IFIs) and industry insiders reframed austerity as an asset enabling innovation in the late 1990s and early 2000s. In the second section, I argue that the work of human ATMs emerged in the seams of this austere infrastructural landscape. Far from being simple 'intermediaries', human ATMs are engaged in critical but unrecognized forms of affective and expert work. Not only is this 'distributed social network of expertise' (Maurer 2012: 590) essential to maintaining the nodal infrastructure, but these 'communicative pathways' also form the basis of technological 'innovation', with the mobilization of user data forming the basis of new services that enable new forms of accumulation (Elyachar 2010: 460). In concluding, I argue that understanding contemporary modes of exploitation and expropriation in Kenya requires a reframing of Karl Polanyi's account of market societies. Far from working to disembed the economy from the social world, Safaricom's business model is based on strategies of embedding that monetize Kenya's publics both to earn 'marginal gains' and to secure new markets.

Rescripting Kenya's austere infrastructural landscape

After decades of lamenting the 'failure' of development in sub-Saharan Africa, the discourse that emerged around M-Pesa was an about-face. Narratives of the incapacity of the state to provide for its citizens gave way to celebrations of the merits of this austere infrastructural geography. The success of mobile telephony was at the centre of this emergent discourse. It was precisely the *absence* of landline infrastructures and the 'inefficiency' of state monopolies over telephony that paved the way for the rapid take-off of mobile phone usage under the management of Safaricom's parent company, UK-based Vodafone. As one US observer wrote of Safaricom in the 2000s, the state monopoly's 'failure as a fixed line service provider stands in stark contrast to the roaring growth of Kenya's mobile phone industry'. Following Telkom Kenya's partial privatization, networks were 'rolled out quickly, and close to 60% of the population now has cellular signal coverage. This rapid growth in mobile is both a cause and a consequence of TKL's failure in the fixed line market.'[5] While infrastructural lumpiness inhibited fixed-line use, it enabled unprecedented connectivity in mobile phone markets. The state's 'inefficiencies' had been replaced by the 'efficiency' of private, foreign corporations. Focusing on the technical issues sidelined the political implications of these reconfigurations.

[5]'Kenya telecom reform: a good story gone bad?', Wikileaks, 10 April 2005 <https://wikileaks.org/plusd/cables/05NAIROBI1488_a.html>.

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This rescripting of state ‘failure’ dovetailed with transformations in developmentalist thinking. The World Bank’s 1994 report *Infrastructure for Development* (Ingram 1994) formalized an increasingly common-sense postulate: infrastructures were commodities like any other (Bear 2017: 5). With infrastructures no longer framed as ‘natural monopolies’ of the state, pundits argued that the private sector was best poised to foster infrastructural development. These ideological shifts entailed governmental interventions that established ‘seemingly depoliticized arenas within which private actors could pursue their “economic” interests, free from overt “political” interference’ (Fraser 2014: 64).

These transformations heralded a redistribution in developmental authority. As elsewhere, the 1980s and 1990s saw a proliferation of NGO and private-sector initiatives across Kenya. The future-oriented language of state developmentalism, and its attendant promises of ‘modernity’, fell into disuse as a more restrained vision of what was possible emerged. ‘Development’ morphed into ‘poverty alleviation’. ‘Big push’ investments were replaced with frugal, parsimonious and often privately funded interventions, which operated according to the profit sensibilities of market actors rather than the accounting standards of deficit and debt-financed states. The decline of narratives of state-led development led to the rise of the ‘micro’: microcredit, microenterprise, microfinance (Roy 2010). As the role of the state was reconfigured and ‘micro-logical’ interventions became the norm, so too was the place of the poor undergoing renovation in development discourse (von Schnitzler 2016: 11). The market was seen not only as an efficient means of distributing resources but also as a technique for the reformation of subjects. Austerity conditions would ‘unleash the entrepreneurial capacities of the poor’. Newly responsibilized ‘entrepreneurs’ would not simply ‘make do’ but were ‘new sources of economic growth’ whose patterned behaviour could guide the accumulative logic of corporate firms (Elyachar 2012: 117). With the decline of formal wage employment, M-Pesa agents – savvy and self-identifying ‘entrepreneurs’ willing to work long hours to secure their commission – fit squarely within this reconfigured discursive and institutional framework.

As IFIs were in the process of redefining relationships between citizenship, infrastructures and governance, Safaricom was undertaking boundary work of another kind. Safaricom’s early success was in the field of telecommunications, *not* finance. It was with the development of M-Pesa in 2007 that Safaricom entered the financial services sector. This entry into the financial sector was also linked to historical patterns of austerity: in this case, an austere regulatory structure had created a permissive ‘ecosystem’, one within which M-Pesa – a hybrid that relies on telecommunications to underwrite financial services – could thrive. Techno-enthusiasts congratulated lax regulators who had wisely ‘ensured development led regulation, unlike in many markets where development lags behind regulation’ (Oyebode 2014).[6] This was not, however, a story of state withdrawal.

[6]As Bill Maurer argues, technological ‘leapfrogging’ turns on repositioning the state in relation to infrastructures, with pundits arguing for ‘the privatization of infrastructure development, as well as “regulatory flexibility”, and often a retreat [or reconfiguration of the role] of the regulatory state’ (Maurer 2012: 593).

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Safaricom began its life as a state-held entity, incrementally privatizing under pressure from international governing bodies. This storied history is crucial to understanding the firm's success. Safaricom's dominance in the field of finance emerged following fierce struggles between Safaricom and the banks. If these struggles heralded the reconfiguration of the regulatory arm of the state, they did not entail the weakening of the state's fiscal arm. As Breckenridge demonstrates, Safaricom's monopoly status was enabled by government regulators in part due to the joint ownership of Safaricom between British-owned Vodafone and the Kenyan state, 'which gave the state a double-dipping interest in the company's enormous profits: first as shareholder and second as tax collector' (Breckenridge 2019: 105). Within three years of its launch, Safaricom had leveraged this lack of distinction between public and private, transforming its tacitly state-sanctioned monopoly into enormous profits, with M-Pesa enrolling 15 million users who generated Ksh 7.5 billion for the firm and its shareholders (*ibid*.: 96).

The flexibility of Kenya's regulatory structures also shaped the labour regime of which Nyawira is a part. M-Pesa's 'winning formula' turned on the acuity of 'Kenya's regulators, who correctly identified … agents as intermediaries rather than providers of banking services' (Klein and Mayer 2011: 6). In this framing, Safaricom's M-Pesa agents are decidedly *not* financial specialists, nor are they maintainers of the infrastructure, much less system builders. M-Pesa agents simply provide services 'just like those provided by machines', performing 'the functions of an ATM that allows cash withdrawals and deposits' (*ibid*.: 7–8). Industry insiders, then, conceived of M-Pesa agents as 'intermediaries': human ATMs whose labour, while important, was unremarkable.[7]

Within a year of its launch, approximately 2,000 'intermediaries' were stationed across the country, undertaking the work of the proverbial human ATM (Jack and Suri 2011). In the beginning, working as an M-Pesa agent could be lucrative. The small number of agents meant that the commission-based pay structure – neither salaried nor waged work – could sustain agents. However, agents, while under the managerial control of the company, are not formal employees.[8] As a result, Safaricom's responsibilities to agents are minimal. Agents' precarious status is matched by their compensation, which is calculated based on the number of transactions they manage over the course of a month. In generating its network, Safaricom established a business model that – pundits lauded – could self-expand, enrolling agents as the network of end users and their transactions grew. The growing numbers of agents increased competition, and the pool of potential profits shrank accordingly. As Nyawira put it, these days 'you walk [down] this road and you maybe see fifteen [kiosks]. Imagine if it was only me.'[9] Kenya's austere infrastructural geography – its lack of electricity and landlines – and M-Pesa's emergent business model led to the proliferation of people engaged in this 'intermediary' labour. Today, there are over 160,000 agents working across

[7]On the discursive construction of agents as 'intermediaries' rather than 'mediators', see Maurer *et al*. (2013).

[8]On the ideological effects of the language of self-employment in contexts where large firms retain managerial oversight, see Crouch (2018).

[9]Fieldnotes, 8 February 2015.

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the country.[10] Nevertheless, for observers, it was 'new technologies' that were 'leapfrogging the ones that exist in developed economies', helping to 'solve problems arising from weak … infrastructure [networks]' (Klein and Mayer 2011: 5). A focus on the technical side elided the very human work embedded in this labour regime.

Affective and social labour as maintenance work and system building

M-Pesa is not a purely technological infrastructure. It relies on the affective social and maintenance work of people such as Nyawira who are responsible for explaining the system and its fee structures to customers, reading text messages to people who are blind or illiterate, and collecting the ID numbers of new customers. Safaricom's reliance on the mediating work of its agents is partly due to its business model. Those at the 'bottom of the pyramid' – defined as persons taking home less than US$2.50 daily – make a subscription-based model untenable (Prahalad 2006).[11] Instead, Safaricom makes money each and every time an M-Pesa transaction is made. Nor is the work merely social: the uneven reach of networked infrastructures requires Nyawira and those like her to materially suture together the nodal system on which M-Pesa's success relies. Nyawira manages and enables this interface, providing the critical link between Safaricom and its customers, their shillings and, importantly, their habits. Indeed, this work is essential to ensuring that Safaricom's network 'hangs together' as it expands (Mol 2002: 68).

From behind the grating of their kiosks, human ATMs enable users to deposit, send, receive and withdraw money. The sequence unfolds as follows. First, a customer locates an M-Pesa kiosk. Once there, they deposit money into their M-Pesa account. The agent takes the customer's physical currency and deducts the amount deposited by the customer from their agent account, moving the electronic value, denominated in shillings, to their customer's account. Once this part of the sequence has been completed, a user can transfer that value from their account to the account of a receiver. Having received notification of the transfer, the receiver can go to an M-Pesa agent to withdraw the electronic value sent to them as cash. This leads the agent's total electronic float to increase. Fees are not fixed but depend on the amount of money transferred. But these broad outlines tell us little about the actual operations of this labour regime. It is to the empirical details of this work that we now turn.

Nyawira works long days. Having woken at 6 a.m. to prepare porridge for her son before waking him and getting him ready for 'baby class', she opens the shop at around 8 a.m. Depending on the day, she closes, with breaks for lunch and dinner, between 11 p.m. and 1 a.m. Nyawira's work is repetitive and often 'boring', as she puts it.[12] Nyawira is not subject to the iconic 'time discipline' of labour sociology. In contrast to the closely monitored working conditions and the scheduled working hours of factory or office work, her working day is

[10] See <https://www.safaricom.co.ke/personal/M-Pesa/getting-started/experience-M-Pesa>.
[11] C. K. Prahalad pioneered the discourse surrounding the value at the 'bottom of the pyramid' (2006).
[12] Fieldnotes, 5 February 2015.

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spent as an isolated individual. Agents are free, even encouraged, to work long hours, and there is little collective organizing among M-Pesa agents. Safaricom does monitor their behaviour through infrequent in-person visits and ongoing data monitoring, and it actively shapes their behaviour through text message reminders. The effectiveness of the model, however, depends on the mass availability of M-Pesa agents who collect fees from users. Indeed, like an ATM, one of the services Nyawira offers is access to financial services beyond the hours of the 9–5 working day of the human teller that the ATM was designed to replace. Nyawira is not, however, an ATM. She must work long hours to maintain consistency of services, the precondition for strengthening the 'communicative pathways' essential to tethering *her* customers to *her* kiosk (Elyachar 2010: 460).

Despite her long hours at the kiosk, Nyawira's access to money is uneven and periodic. On both the scale of the day and the scale of the month, she is perpetually hedging her financial futures. She has developed a series of strategies to mitigate her limited liquidity. In general, she purchases food to prepare for meals just prior to making them. The flow of money in and out of her shop means that she can take a little for lunch knowing that it will be replenished before dinner. There is no refrigeration in her home, moreover, making bulk perishables impracticable. These decisions, however, are governed as much by fiscal uncertainty as by practicality. Unexpected expenses, as in the case of illness, and the perennial and vexing uncertainty regarding whether friends and family will contribute to her imagined future (in the form of bridewealth) or to that of her son (in the form of school fees), upset the balance that Nyawira seeks to maintain.

Nyawira's vulnerability is related directly to Safaricom's payment structure. As an agent, her commission is determined by the number of transactions that she completes in a month. In 2014, customers were charged Ksh 15 to transfer Ksh 1,000 to another mobile device and Ksh 27 to withdraw the same amount. These transaction fees are the margin that form the basis of agents' commissions, which are divided between an agent and Safaricom. However, the number of transactions she will manage over the course of a month is not guaranteed, and Nyawira's ability to secure her commission maps onto the ebbs and flows of the movement of money within the estate.

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I was sitting with Nyawira in her shop one day when a number of customers streamed in wanting to make deposits: '*Sina* float [I have no float],' Nyawira responded.[13] Nyawira's float, as noted, is the total electronic value stored in her agent account, which she accesses through her digital phone. Every time a deposit is made, she transfers her e-money to the account of her customer in exchange for their cash, leading her float to go down. As her float approaches zero, as it did on this day, she has to refuse deposits until customers wanting to make withdrawals arrive, their movement of cash out of the system increasing her float as she transfers their e-money to her own account, giving customers their desired cash in exchange. I asked Nyawira why so many people were depositing on that day. She speculated that it was because banks had closed early, it

[13]Fieldnotes, 13 June 2015.

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being a Saturday. On further reflection, she continued that people just didn't have money to spend, noting that times had been tough in the estate. Even those making deposits, she said, were using their money to pay bills. It is only when money is moving through the system and generating interchange fees that it generates monetary value.

On some days, this precarious balance of deposits and withdrawals is achieved. One afternoon I joined Nyawira working at the shop. For nearly three hours there was barely a minute of pause.[14] I doled out airtime credit while Nyawira managed deposits and withdrawals. She speculated that it was busy because it was Sunday, a day when families make small outings after attending church services. This was not characteristic of every Sunday, she added, noting that there were other reasons why it was busy on that day, which mapped onto another financial rhythm. It was close to the end of the month; with people being paid 'from the twenty-fifth', this meant 'a lot of business'. To her good fortune, on that day her customers were doing the work of equalization, deposits and withdrawals happening in balanced numbers and amounts.

Put plainly, the uncertainty of Nyawira's commission is compounded by the volatile but semi-predictable financial lives of her customers. As Nyawira routinely observed, there are definite and observable rhythms that govern the rates at which people use the system. These rhythms are structured along different temporal scales: certain times of day are busier than others, as are certain times of the month and certain times of the year. These patterns of use reflect the fact that Kenya's poor and middling classes are perpetually working to hedge their financial futures in a context of routine illiquidity. For example, whether earning a salary or making money on the day, the end of the month is a tense time as people evaluate how much of a stretch it will be to pay rent. Other times of acute yet predictable financial anxiety are the periods before the beginning of school terms, when people go to great lengths to ensure that they can assemble school fees. Nyawira's life is also structured by these rhythms but in a reduplicated way as her livelihood is contingent on the fact that these rhythms structure the lives of her customers and thus their use of her services. As Nyawira succinctly put it, her livelihood 'depends on what the customers are doing'.[15]

Nyawira's work demands that she attend to these rhythms of financial life, engaging in a form of para-ethnography as she works at her kiosk. From the shop, she chats with neighbours, observing their movements and purchases, and gauging the temporality and amounts of money deposited and withdrawn. In part, this is because the rhythms of her customers' economic lives dictate her own capacity to make money. However, her knowledge of 'her customers' extends beyond the general patterns of financial life in the estate. Many of these people are not strangers but intimates with whom she has developed relationships over the course of many months of work. Indeed, she routinely indicated the importance of moving away from generalizations to the particulars of each individual. As she put it, it is important that you know them, that you understand them, as 'every customer has their own problems'.[16] For example, one of her

[14]Fieldnotes, 28 June 2015.
[15]Fieldnotes, 13 June 2015.
[16]Fieldnotes, 15 December 2014.

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customers cannot see very well so asks her to read transaction texts to him.[17] Other loyal customers are illiterate, relying on Nyawira to guide them through the service. Some know her son Kamaish and buy him small sausages being sold by another of 'her customers' who has a small stand outside her kiosk where he sells boiled eggs with *kachumbari* (salsa). She knows the family of another customer, and so, as I discuss below, she is willing to bend some of Safaricom's regulations when carrying out their transactions. These relationships, developed over the course of many patient hours of work, are underwritten by trust.

From Nyawira's perspective, her ability to establish and maintain intimate relationships with her customers requires that she calibrate her moods. Maintaining a suitable affective disposition takes work. On many occasions I found her sitting in her shop looking tired and unhappy. The 'stress' she was under in her personal life, she explained, was acute, and it was a problem for business. Following Arlie Hochschild, this affective labour requires that Nyawira 'induce or suppress feeling in order to sustain the outward countenance that produces the proper state of mind in others'. While never acknowledged in Safaricom's accounts, this 'kind of labour calls for a coordination of mind and feeling' (Hochschild 2012: 7). Evidently, this human ATM is involved in a careful act of self-curation which she views as being critical to extending the social relationships essential for the smooth operations of this marketplace.[18] While this affective labour does not 'simply mirror the commodity logic', embodying 'distinctive … grammars', it is nevertheless crucial to making Safaricom's network operate (Fraser 2014: 66).

While these affective repertoires characterize many forms of feminized work, in the case of human ATMs they are matched by the daily labour of making the material infrastructure that grounds Safaricom's system work. Put simply, these intimacies, while crucial to securing Nyawira's 'customers', also enable her to enrol the broader social networks within the estate that are essential to making Safaricom's business possible. Periodically when short of cash, for example, Nyawira heads down the road to Safi Roho, one of the many butchers in the estate. An agreement produced out of routine, she regularly borrows Ksh 10,000, which she uses as her liquid capital until the end of the day. Unlike in the context of the ATM, there is no large store of currency located behind Nyawira's grate.[19] This infrastructure is nodal rather than networked, and it is reliant on relations officially outside the purview of the system in order to operate. As Elyachar notes, just 'as poor people have to contend with fragmented physical infrastructure in all aspects of their lives, they have to invest more time in the maintenance of [the] infrastructure of communicative channels' (Elyachar 2010: 457). These 'arrangements', while officially outside Safaricom's model, are unofficially at its centre. Both the backstory and the front story of contemporary modes of accumulation, they are 'arrangements … from which capital profits and on which it relies' (Fraser 2014: 59).

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[17] Fieldnotes, 7 August 2014.

[18] *Ibid.*

[19] As Bill Maurer *et al*. argue, '[l]iquidity management is … seen as the most common and prominent reputational risk' for providers (2013: 65).

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Just as Nyawira's affective social work stitches together the forms of sociality necessary for M-Pesa's operations in the estate so too does her shop suture together Nairobi's infrastructural landscape. Indeed, Nyawira's shop operates as an infrastructural hub in an estate characterized by the uneven delivery of services. While many residents have access to electricity, blackouts are semi-regular due to the system going down or because people lack the money to purchase electricity tokens. Nyawira's shop, by contrast, is constantly glowing at night, boasting the hum of electricity or *stima*, which she pays for using prepaid tokens. Evidently Safaricom has discharged the responsibility of providing electricity, a service required for its network of agents to work, onto the agents themselves. But from Nyawira's perspective, this is a business opportunity enabling her to offer another service: the charging of mobile phones, for which she demands a flat fee regardless of the duration of the charge. For Safaricom, offloading the responsibility for generating infrastructural connectivity to agents allows the company to sidestep the problem of Kenya's austere infrastructural geography, all the while encouraging the 'entrepreneurial comportment' of its agents (Miller and Rose 2008: 98).

Affective work as collusion

The relations of trust that seem to fall outside market relations are also a potential liability for Safaricom. It is on the basis of these dynamics that Nyawira and her customers routinely collude to evade Safaricom's regulations. The term 'direct deposit' refers to one such collusion. Transferring value via M-Pesa incurs transaction fees: if you want your receiver to have access to Ksh 1,000, you need to send Ksh 1,000 plus Ksh 15 for the transfer and another Ksh 27 for the cost of the withdrawal – a total of Ksh 1,042. These fees are borne either in part by the sender (if they are willing to put part of the burden on the receiver), or in full by the sender (if they want to relieve the receiver of the burden of paying at the time of withdrawal). The latter is often the case with M-Pesa transfers moving from Nairobi to 'upcountry' Kenya, where many Kenyans send their money to family, often elderly parents, living in the countryside. M-Pesa is, after all, a system premised on the promise of securing the social relations of kinship, a nodal network binding city to countryside, and reflecting the lumpy geography of both capital and labour in Kenya. As Safaricom's website is quick to remind visitors, M-Pesa allows labour migrants to 'send money home'.[20] If money is deposited directly into the account of the receiver, however, both the sender and the receiver avoid the secondary cost of withdrawal. This is expressly prohibited by Safaricom. As an agent, Nyawira can facilitate direct deposits, but if caught she risks being penalized.

Safaricom's 'regime of perceptibility' is not, however, total (Murphy 2006: 10). For Safaricom to notice these transactions, they have to become visible to the system, which it achieves by virtue of the sensitivity of the digital network to the spatial coordinates of money moving in and out of the network. If, for example, a deposit is made to an account at Nyawira's kiosk in Zimmerman

[20]See <https://www.safaricom.co.ke/>.

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Estate and within minutes the money is withdrawn in Kerugoya, a town located some six hours away, the system will detect that a direct deposit has been made. But there are workarounds. If the receiver waits half a day before withdrawing the money, Safaricom's system will not be able to detect the direct deposit. If the withdrawal is deferred, Nyawira explained, 'Safaricom can't see anything.' Nyawira deploys this strategy when she sends money to her parents who live upcountry. But she also does it for 'her customers', those loyal regulars for whom she is both patron and client.

Customers and agents have developed other, seemingly more banal, evasions. Safaricom requires its agents to view a customer's ID every time a transaction is undertaken. Nyawira applies this regulation unevenly. When I inquired about this, she told me that it was a matter of 'knowing'. 'When I know you, I can withdraw for you without [seeing your] ID. If I don't know you, I can't trust you.'

M-Pesa was conceived as a way to move money across distances, disembedding it from the everyday risks and social obligations that attend moving money by hand. The celebrations of villagers that used to greet Nairobi's residents travelling upcountry have diminished as money can now be sent electronically to recipients.[21] This dematerialization of cash promises to – and does – satisfy the desire to send money across great distances. An early advertisement for M-Pesa captured this idea: Kenyan shillings flow from the phone of an urbane man to his parochial elders labouring in a field. However, the abstraction this depicts – of a money infrastructure devoid of human mediation – is a fiction. The very functioning of M-Pesa is dependent on the relationships of proximity and intimacy of those at the 'bottom of the pyramid' (Prahalad 2006). These dynamics are not ancillary or necessarily subversive; rather, they are concurrently integral to Safaricom's profitability *and* occluded on Safaricom's balance sheets.

Affective work and 'value at the bottom of the pyramid'

I was repeatedly told that Zimmerman was just a 'swamp' a decade ago. As Kenya's population has more than doubled in the past thirty-five years, such peri-urban landscapes have proliferated around Nairobi's central business district. Population growth has outpaced salaried job creation, leading to the explosion of the so-called 'informal' labour market.

Safaricom benefited from these demographic shifts as people flocked to become M-Pesa agents, despite the low, commission-based pay structure. In the early years, M-Pesa agents were forbidden from carrying out other business ventures, but these prohibitions became untenable as the system grew. As Nyawira told me in 2014, 'About five years ago, they used to come by and if they saw that you were selling anything else, like these padlocks and extensions, they would tell you to stop. They could even cancel your [agent] line.' 'These days,' she continued, 'that's not a problem.'[22]

[21]On some accounts, this has put a strain on social relations. As one interlocutor put it: 'People just send money, but money is not everything. People, the old people, are sad people are not coming home' (fieldnotes, 24 June 2019).

[22]Fieldnotes, 8 February 2015.

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Nyawira self-identifies as a good businesswoman, an 'entrepreneur'. Over time she has expanded her investment portfolio, launching small business ventures on the side to offset the low commission she receives from Safaricom. As an emergent literature demonstrates, entrepreneurialism is at the centre of the lived realities of austere economies. Under conditions of constraint, the '"responsibilized" citizen comes to operate as a miniature firm, responding to incentives, rationally assessing risks, and prudently choosing from among different courses of action' (Ferguson 2010: 172). Nyawira is not driven by the calculative logics of the marketplace alone, however. Instead, she has expanded her investments to manage the 'turbulence' of her present and in the hope of securing a more desirable future for herself and her son.[23]

This economy of care dovetails with the rhetoric of the entrepreneur, however, driving Nyawira to expand her stock and the services she offers in a piecemeal fashion. One day, I arrived to see that she had added batteries and chargers. On another day, she had adorned her shop with thin, brightly coloured ladies' belts and hair scrunchies that were popular at the time. Within months, she had invested in a wooden structure. Hastily built at the cost of Ksh 2,000, it housed plastic slippers and washing bins.[24] Nyawira constantly evaluates sartorial and technological trends, a lay market forecasting that emerges from her studied observations from the kiosk. She takes this work of cultural discernment seriously as a means of distinguishing her shop, attracting new customers, and thickening bonds with existing ones. In other words, it is not merely the rote fulfilment of mobile money transactions that makes for a good M-Pesa agent, but the expansive care with which a kiosk is maintained, and the time invested in 'knowing' their customers by attending to their needs, desires and limitations. Motivations notwithstanding, her activities are congruent with Safaricom's business model, which operates in the register of altruistic capitalism. The goal is to 'transform lives' by 'unlocking' the 'entrepreneurial' potential of Kenya's poor (Safaricom 2017).

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The work of maintaining and extending social relationships that are conventionally held to be outside the rationality of the market is critical to Nyawira's future possibilities. This work is also essential to expanding the company's growing knowledge infrastructure, of which she is a critical, though woefully under-remunerated, component. Indeed, if the system's reliance on the human ATM is occasionally a liability for the company, it is also at the centre of Safaricom's ever-expanding knowledge apparatus. The company uses the data generated by Kenyans' use of M-Pesa as a baseline from which it develops new services. Agents play a key role in gathering these data.

Theoretically, every transaction that is undertaken at Nyawira's shop is recorded both in her logbook and electronically. These data provide a map of information regarding person-to-person transfers, rates and values of withdrawals and deposits, and the locations of parties involved in a given transaction. All of

[23]Jane Guyer uses the term 'turbulence' as a way to describe lived experiences of financialization, eschewing the language market makers themselves use to describe financial markets – i.e. 'uncertainty' or 'risk' (Guyer 2016: 251).

[24]Fieldnotes, 8 February 2015.

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these data are tethered to individuals. This was mandated by Kenyan regulators under the terms of a regulation called 'Know Your Customer' (KYC), which requires that each M-Pesa account be linked to an individual, a connection secured when a new customer presents a valid ID on registration. Nyawira and others like her perform the work of collecting and verifying people's ID numbers. In this capacity, she acts as a conduit between users and Safaricom's offices, where users' data are transformed into commercially useful knowledge.

To understand this process of revaluation, we have to travel with these data as they move from Zimmerman to Safaricom's headquarters, the imposing towers of which are located in Nairobi's affluent Spring Valley neighbourhood. In these 'centres of calculation', Safaricom's recognized 'experts' engage in product refinement and innovation (Latour 1987: 232). As data move from sites across Kenya, including Nyawira's kiosk, to the offices of research, development and design, Nyawira's daily affective and social work, as well as that of her customers, is occluded. In the process, the qualitative lives underwriting habits become the quantitative basis for the generation of new services. Indeed, as these data are read for patterns, the social relations that enabled their unwitting collection are stripped of their interpersonal quality, revealing 'special characteristics' only visible in the aggregate (Tsing 2013: 36). However, it is precisely from these unmarketized zones and behaviours that designers, having subjected data to techniques of assessment, locate commercially valuable insights that enable the generation of new markets from which profits are extracted.

James, a financial analyst for Safaricom, explained that M-Pesa had been a harbinger for how the company approaches the task of developing new products and services. In 2005, two Vodafone executives, Nick Hughes and Susie Lonie, partnered with Faulu, a Kenya-based microcredit NGO. They began with a simple proposition: could they develop a platform that would ease the dispersal and repayment of small loans? To this was added another function, which enabled users to buy prepaid airtime through the system (Hughes and Lonie 2007: 75). Monitoring 'transaction patterns', they noticed that pilot populations were putting the platform to uses unimagined by its designers. Not only were people sending airtime to relations upcountry 'as a kind of informal remittance', but they were using the platform to send small amounts of money to people outside the pilot population (*ibid.*: 76). Designers reworked the platform to accommodate these user innovations, leading to the birth of M-Pesa. Put simply, people's reconfiguration of the system had transformed a banal loan repayment scheme into a 'revolutionary' mobile money platform.

M-Pesa's peculiar trajectory shaped what is today Safaricom's guiding business strategy: users' patterns of use with one service could guide the innovation of new services. In this vision, users have been reimagined as lay designers, albeit designers who are unaware of their role in generating new knowledge and not cognizant that everyday life is being commuted into profits. This business strategy relies on locating sites of innovation on the cheap. However, James insisted, this 'collaborative way' of developing new services enables Safaricom to 'transform lives'.[25]

[25]Interview with James Oweno, 21 July 2015; *Safaricom Foundation Strategy 2014–2017* at <http://safaricomfoundation.org/home>, accessed spring 2017.

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In the case of Safaricom, 'innovation' has begotten 'innovation'. The team of data analysts tasked with locating and rendering visible commercially valuable insights noticed the 'queer behaviour' of users, as James recounted. Over the course of many months, a new pattern became discernible to analysts as they pored over the numbers generated every time a transfer is made. Users, they learned, were depositing more money into the system than the amount they subsequently transferred. No longer simply a means of transferring money, users had reconfigured M-Pesa into a savings service.[26] Noticing these user innovations, designers set to work constructing M-Shwari, a facility that operates as a platform for savings and provides a gateway for customers to access small loans.

Launched in conjunction with the Commercial Bank of Africa (CBA), Safaricom framed M-Shwari as a means of deepening the 'financial inclusion' of the 'unbanked' by developing unbiased but discriminating algorithms (Safaricom 2017). In so doing, Safaricom capitalized on the popular perception that Kenya's financial sector is Kikuyu-dominated, with ethnicity largely determining access to loans. Safaricom's algorithm, by contrast, and despite the fact that the CBA is partially owned by the family of the current president, Uhuru Kenyatta, did not discriminate based on ethnic affiliation. This was a technological fix to a historical political problem that, from the perspective of many, sits at the centre of contemporary inequalities.

These altruistic algorithms had to mitigate the risk of issuing loans to persons without credit scores. Safaricom devised a novel solution. M-Shwari loans are not backed by assets but by 'reputational collateral' that Safaricom assembled through the analysis of a vast archive of user data that it established as having predictive potential – these data included age, repayment of emergency airtime credit, M-Pesa transactions, and daily airtime usage (Breckenridge 2019: 95). In explaining how this data mapped onto the relative risk for creditors, James told me that it was like 'using [your] consumption of bananas to tell us something about your consumption of oranges'.[27] The initial user portfolios reliably predicted repayment: only 6.1 per cent of loans were unpaid within ninety days during the initial months of the service. As more people engage with the system, Safaricom actively incorporates new data generated by M-Shwari users, iteratively improving the scoring model in the process. In so doing, it has driven the number of non-performing loans (NPLs) down an additional 2 per cent (FSD Africa 2016: 4).

M-Shwari has become a hugely popular service. By the end of 2016, M-Shwari boasted 16 million customers who had taken out 64 million small loans, valued at US$1.4 billion (Breckenridge 2019: 105). Its profitability in the field of debt, too, depends in part on the company exploiting Kenya's regulatory structure, with Safaricom branding the monthly 7.5 per cent premium on borrowed funds as a 'facilitation fee' rather than an 'interest rate', thereby getting around Kenya's interest rate caps. While the loans are small, the facilitation fee is usurious, reaching 90 per cent were it to be annualized. While Safaricom frames M-Shwari as a means of deepening 'financial inclusion', it has effectively translated user data into commercially valuable insights that enable it to make claims on people's future labour.

[26]Interview with James Oweno, 21 July 2015.
[27]Fieldnotes, 23 June 2015.

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The development of services such as M-Shwari would be impossible without the work of M-Pesa agents, who operate as a critical interface, enabling users to access the platform and, in turn, facilitating Safaricom's collection of data. This data-driven business model enables Safaricom to capitalize and scale up the life courses, behaviours and strategies of the poor. This involves work of revaluation, with customers being identified as potential designers. As Sanford Schram has argued, whereas in the past 'workers' labour was … a factor in production, [today] ordinary people's everyday activities are … commodified' in ways that add to the revenue streams of multinational corporations (Schram 2015: 26). The poor emerge in this new landscape not merely as generators of value. Rather, their knowledge, their strategies, their patterned behaviours are themselves sources of profit. This is perhaps a more accurate accounting of what is meant by 'value at the bottom of the pyramid'. To return to Fraser, this profit-generating activity, which requires the daily affective and social labour of M-Pesa agents and their customers, is 'treated as costless in capital's accounts, it is expropriated without compensation or replenishment and implicitly assumed to be infinite' (Fraser 2014: 63).

Conclusion

Karl Polanyi argued that market societies are characterized by efforts to disembed 'the economy' from the social worlds of which it is a part. This insight, he argued, was critical to understanding what was unique to capitalism (Polanyi 2001 [1944]: 60). Many scholars have taken Polanyi's insights as their point of departure for understanding what is unique to neoliberalism and austerity capitalism (Slobodian 2018). My discussion of Safaricom works at an angle to this narrative. Today, companies such as Safaricom not only work to shore up a vision of their markets as embedded extensions of existing social relationships, but also depend on these relationships themselves as the basis for assembling new markets. Indeed, this is the guiding logic underwriting the concept of 'value at the bottom of the pyramid'. The work of Nyawira and those like her sits at the centre of this labour of embedding. The very success of Safaricom – its capacity to marketize existing patterns of life, affect, sociality and 'making do' – turns on the relations of intimacy that are at the heart of Nyawira's business. However, Nyawira is not recognized as a knowledge worker or system builder; instead, she is referred to by industry insiders as a human ATM. This representation elides the affective social and maintenance work essential to M-Pesa's success, enabling Safaricom to portray this work as banal, all the while capitalizing on the social relations that form the basis of its profitability.

Re-centring this supposedly generic labour as affective social and system-building work offers a vantage point from which we can discern the series of erasures on which new modes of capture and dispossession are based. To do so requires recognizing the work of Nyawira and those like her as *both* the front story and the backstory of contemporary modes of accumulation – her labour at the shop is exploited while her work as a system builder and maintainer is expropriated. The same pattern is discernible in Safaricom's business model, which depends on the appropriation of the 'social infrastructures' of those at the 'bottom of the pyramid' as part of an ongoing process of expropriation. These 'social infrastructures', while treated as free in capital's accounts, are, in fact, collectively

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generated resources 'for which recompense should be paid or rent paid for use' (Elyachar 2012: 121).

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References

Batiz-Lazo, B. (2017) 'ATMs' in B. Maurer, L. Swartz, G. C. Bowker and P. N. Edwards (eds), *Paid: tales of dongles, checks, and other money stuff.* Cambridge MA: MIT Press.

Bear, L. (2017) '"Alternatives" to austerity: a critique of financialized infrastructure in India and beyond', *Anthropology Today* 33 (5): 3–7.

Berman, B. (1990) *Control and Crisis in Colonial Kenya: the dialectic of domination*. London: James Currey.

Breckenridge, K. (2010) 'The world's first biometric money: Ghana's e-zwich and the contemporary influence of South African biometrics', *Africa* 80 (4): 642–62.

Breckenridge, K. (2019) 'The failure of the "single source of truth about Kenyans": the NDRS, collateral mysteries and the Safaricom monopoly', *African Studies* 78: 91–111.

Cooper, F. (1987) *On the African Waterfront: urban disorder and the transformation of work in colonial Mombasa*. New Haven CT: Yale University Press.

Crouch, C. (2018) 'A long-term perspective on the gig economy', *American Affairs* 2 (2).

Elyachar, J. (2010) 'Phatic labour, infrastructure, and the question of empowerment in Cairo', *American Ethnologist* 37 (3): 452–64.

Elyachar, J. (2012) 'Next practices: knowledge, infrastructure, and public goods at the bottom of the pyramid', *Public Culture* 24 (1): 109–29.

Ferguson, J. (2010) 'The uses of neoliberalism', *Antipode* 41 (S1): 166–84.

Fraser, N. (2014) 'Behind Marx's hidden abode: for an expanded conception of capitalism', *New Left Review* 86: 55–72.

FSD Africa (2016) *The Growth of M-Shwari in Kenya – A Market Development Story: going digital and getting to scale with banking services.* Nairobi: Financial Sector Deepening (FSD) Africa.

Guyer, J. I. (2004) *Marginal Gains: monetary transactions in Atlantic Africa*. Chicago IL: University of Chicago Press.

Guyer, J. I. (2016) *Legacies, Logics, Logistics: essays in the anthropology of the platform economy.* Chicago IL: University of Chicago Press.

Hochschild, A. R. (2012) *The Managed Heart: commercialization of human feeling*. Berkeley CA: University of California Press.

Hughes, N. and S. Lonie (2007) 'M-Pesa: mobile money for the "unbanked" turning cellphones into 24-hour tellers in Kenya', *Innovations* 2 (2): 63–81.

Downloaded from https://www.cambridge.org/core. Univ of Michigan Law Library, on 26 Jan 2022 at 21:20:54, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/S0001972020000649

Ingram, G. K. (1994) *Infrastructure for Development*. Oxford: Oxford University Press.

Jack, W. and T. Suri (2011) 'Mobile money: the economics of M-Pesa'. Working Paper 16721. Cambridge MA: National Bureau of Economic Research <https://www.nber.org/papers/w16721>.

Klein, M. and C. Mayer (2011) 'Mobile banking and financial inclusion: the regulatory lessons'. Policy Research Working Paper 5664. Washington DC: World Bank Group <http://documents.worldbank.org/curated/en/516511468161352996/Mobile-banking-and-financial-inclusion-the-regulatory-lessons>.

Kusimba, S. (2018) 'Money, mobile money and rituals in western Kenya: the contingency fund and the thirteenth cow', *African Studies Review* 61 (2): 1–25.

Kusimba, S., Y. Tang and N. Chawla (2016) 'Hearthholds of mobile money in western Kenya', *Economic Anthropology* 3 (2): 266–79.

Latour, B. (1987) *Science in Action: how to follow scientists and engineers through society*. Cambridge MA: Harvard University Press.

Maurer, B. (2012) 'Mobile money: communication, consumption and change in the payments space', *Journal of Development Studies* 48 (5): 589–604.

Maurer, B. (2015) 'Data-mining for development?: Poverty, payment, and platform' in A. Roy and E. Shaw Crane (eds), *Territories of Poverty: rethinking North and South*. Athens GA: University of Georgia Press.

Maurer, B., T. C. Nelms and S. C. Rea (2013) '"Bridges to cash": channelling agency in mobile money', *Journal of the Royal Anthropological Institute* 19 (1): 52–74.

Meagher, K. (2017) 'Cannibalizing the informal economy: frugal innovation and economic inclusion in Africa', *European Journal of Development Research* 30 (1): 17–33.

Miller, P. and N. Rose (2008) *Governing the Present: administering economic, social, and personal life*. Cambridge: Polity.

Mol, A. (2002) *The Body Multiple: ontology in medical practice*. Durham NC: Duke University Press.

Murphy, M. (2006) *Sick Building Syndrome and the Problem of Uncertainty: environmental politics, technoscience, and women workers*. Durham NC: Duke University Press.

Oyebode, A. (2014) 'M-Pesa and beyond: why mobile money worked in Kenya and struggles in other markets', *TechCabal* <https://vc4a.com/blog/2014/01/15/M-Pesa-and-beyond-why-mobile-money-worked-in-kenya-and-struggles-in-other-markets/>, accessed spring 2017.

Polanyi, K. (2001 [1944]) *The Great Transformation: the political and economic origins of our time*. Boston MA: Beacon Press.

Prahalad, C. K. (2006) *The Fortune at the Bottom of the Pyramid: eradicating poverty through profits*. Cranbury NJ: Pearson Education.

Roy, A. (2010) *Poverty Capital: microfinance and the making of development*. New York NY: Routledge.

Safaricom (2017) *Safaricom Annual Report and Financial Statements 2017: where will we go next?* Nairobi: Safaricom.

Schram, S. F. (2015) *The Return to Ordinary Capitalism: neoliberalism, precarity, Occupy*. Oxford: Oxford University Press.

Simone, A. (2004) 'People as infrastructure: intersecting fragments in Johannesburg', *Public Culture* 16 (3): 407–29.

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Slobodian, Q. (2018) *Globalists: the end of empire and the birth of neoliberalism*. Cambridge MA: Harvard University Press.
Tsing, A. (2013) 'Sorting out commodities: how capitalist value is made through gifts', *HAU: Journal of Ethnographic Theory* 3 (1): 21–43.
von Schnitzler, A. (2016) *Democracy's Infrastructure: techno-politics and protest after apartheid*. New Haven CT: Princeton University Press.
Wark, M. (2019) *Capital Is Dead: is this something worse?* New York NY: Verso.

Abstract

This article explores the austere labour regime of Safaricom – Kenya's largest telecommunications firm and financial services provider – from the perspective of the women and men who work as 'human ATMs' for Safaricom's breakout service, M-Pesa. Far from women and men simply acting as ATMs, I argue that the affective and social labour of these people working at sites across the country constitutes a form of maintenance work that, while essentially free in Safaricom's accounts, critically underwrites the success of M-Pesa and Safaricom. In making this argument, I draw on the insights of feminist political theorist Nancy Fraser, who has pushed Marx's key insight that behind the sphere of exchange lies the 'hidden abode' of production. In contrast, Fraser argues that behind the 'hidden abode' of production lie domains more hidden still that constitute the 'backstory' of contemporary forms of accumulation. I argue that the work of 'human ATMs' constitutes both the 'front story' and the 'backstory' of contemporary modes of accumulation unfolding in Kenya. Their labour is formally exploited while broader forms of work required to build and maintain the social and material networks on which Safaricom depends are expropriated, forming the basis of new frontiers of accumulation. This process is mirrored in Safaricom's contemporary business strategy, which is premised on enclosing people's everyday habits and social networks in their digital forms as sites of innovation and market-making.

Résumé

Cet article explore le régime de travail austère de Safaricom, la plus grande société de télécommunications du Kenya et prestataire de services financiers, du point de vue des femmes et des hommes qui travaillent comme « distributeurs automatiques de billets (DAB) humains » pour M-Pesa, le service extrêmement populaire de Safaricom. L'auteur soutient que ces femmes et ces hommes sont loin de jouer un simple rôle de DAB, et que le travail affectif et social de ces personnes qui travaillent sur des sites répartis dans tout le pays constitue une forme de travail de maintenance qui, bien qu'essentiellement gratuit au regard des comptes de Safaricom, assure de manière critique le succès de M-Pesa et de Safaricom. Dans son argumentation, l'auteur s'appuie sur les idées de la théoricienne politique féministe Nancy Fraser, qui a poussé la grande idée de Marx selon laquelle le « lieu caché » de la production résiderait derrière la sphère de l'échange. A contrario, Fraser soutient que derrière le « lieu caché » de la production résident des domaines encore plus cachés qui constituent les « dessous de l'histoire » des formes contemporaines d'accumulation. L'auteur soutient que le travail des « DAB humains » constitue à la fois les « dessus et les dessous de l'histoire » de modes contemporains d'accumulation qui se révèlent au Kenya. Leur travail est exploité de manière formelle tandis que des formes de travail plus larges nécessaires pour construire et entretenir les réseaux sociaux et matériels dont

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dépend Safaricom sont expropriées, formant la base de nouvelles frontières d'accumulation. Ce processus se reflète dans la stratégie commerciale contemporaine de Safaricom, basée sur le clôturage des habitudes quotidiennes et des réseaux sociaux dans leurs formes digitales en tant que sites d'innovation et de tenue de marché.

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