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L'économie des données de l'inclusion prédatrice au Kenya

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Algorithmic Intimacy
The Data Economy of Predatory Inclusion in Kenya

Abstract: Kenya is a frontier market for 'financial technology', or FinTech. This industry – which merges mobile telephony and digital data with commercial lending – has grown spectacularly, with millions of Kenyans borrowing for household, emergency, and commercial expenses. This industry's frenzied growth has been fuelled by not merely the pursuit of profit, but also a decidedly more developmental aspiration, namely 'financial inclusion'. This article analyzes the curious merger of public good and private gain, the technological innovations, and sorts of knowledge work that undergird this field. It particularly examines the novel manner in which digital lenders capitalise on intimacy, converting practices of kinship and entrustment into frontiers of extraction. Personal and social data are translated into credit scores, extended family networks are mediated by financial services, and interpersonal relations subsidise risky lending decisions. In contrast to a view of capitalism as abstracting and alienating, this analysis foregrounds the sorts of personal relations, sentiments and obligations that are incorporated. Through fieldwork with borrowers, industry members and regulators, we show that digital lending relies on a conversion between different registers of wealth – in people, in things and in knowledge – and we track the ethical negotiations and anxious attachments that constitute this curious utopia.

Keywords: credit, debt, digital, financial inclusion, intimacy, Kenya

'Fuliza! Fuliza!' James cajoled his friend. We were a few drinks in, sitting at a cramped table in a downtown Nairobi pub. Moments before, Victor, the target of this demand, had the temerity to suggest he might go home. Gesturing to his empty wallet, the matter seemed out of his control. But the demand to Fuliza suggested otherwise. Unveiled by the telecommunications and finance firm Safaricom at the beginning of 2019, Fuliza is described as an overdraft facility: if you run out of mobile money but are trying to make a purchase, Fuliza will offer you an advance and charge you a daily rate until you repay.

Fuliza advertisements promise you can continue spending in the face of financial impediments (Figure 1). In this case, 'Fuliza!', thrown across a table of bottles, was a playful demand to draw on the future to continue socialising in the present. Empty wallets be damned – there was a good time to be had and digital debt would make it happen. Sitting quietly in people's pockets, analysing their call records and M-Pesa spending, Fuliza is building intimate relationships with users, coming to know computationally the credibility of would-be borrowers

FIGURE 1. 'Finish what you need to finish with Fuliza.'
Source: Digital HBS.edu

in order to modulate how much credit is offered. This is intimacy on an industrialised scale: in the first week alone, Fuliza lent 1 billion shillings (US$10 million).

The Safaricom overdraft facility is but one in an expanding array of 'FinTech' services in Kenya (Donovan and Park 2022). Indeed, the country has become a central node in the global FinTech industry, a portmanteau noting the conjoining of finance and technology. Dozens of these services have sprung up – some from start-ups, others from major corporations; some locally built, others imported from Silicon Valley. At least fifty such 'apps' (as Kenyans call them) focus on lending to the poor. These sit at the confluence of big data, mobile telephony and consumer credit markets, extracting and analysing data from mobile phones to calculate risk profiles for millions of would-be debtors. Under the banner that 'all data is credit data', FinTech firms across the world are eagerly accumulating data to incorporate a frontier of borrowers (Aitken 2017; O'Dwyer 2018; Maurer 2012a). Who you call, where you travel, what you buy, even whether or not you organise your contact list by one or two names – innumerable variables are correlated with financial credibility.

Safaricom's mobile money platform M-Pesa has made Kenya a lodestar for the curious mixture of techno-capitalism and international development that waves the banner of 'financial inclusion' (cf. Roy 2016; Maurer 2012b). M-Pesa – and the subsequent lending services built on its infrastructure – rejuvenated a long-standing aspiration to 'bank the unbanked'. For many years, it served as evidence for the promissory visions of financial inclusion. As a utopian project, financial inclusion self-consciously departed from the purported strictures of the past: in place of an overweening aid bureaucracy making dead-end, even destructive, plans, these projects were more purposefully experimental. In the

promotional rhetoric, a whole range of virtues – from women's empowerment and poverty alleviation to employment and wealth creation – were semiotically linked to technologies that were surprisingly feasible. The imaginative geography was of a frontier of 'not-yet' incorporated poor who would benefit from commercial services (Prince and Neumark, this issue). The pioneering (and profitable) spread of M-Pesa was perceived as proof of the innovative potential of poor countries and splashed across NGO reports and *Economist* leaders. But the full aspiration of financial inclusion proponents was never limited to technology. Instead, their vision is more peculiar, requiring new organisational forms that cross boundaries between state and corporate, public good and private gain. Regulation, where it exists, is meant to enable profitable innovation; non-profits serve less as a check on corporate or state power than as conveners of common purpose. This is a decidedly consensual project, with little in the way of agonism. Here, too, M-Pesa was exemplary: it was co-financed by the UK government and Vodafone, and approving development economists found its contribution to poverty alleviation sat comfortably with its enormous profitability.

It is into this context that phone-based lending entered in the past decade. Consider M-Shwari, the mobile lending service introduced in 2012 using M-Pesa for dispersal and collection of loans. As we argue in this article, one of the exceptional characteristics of the financial inclusion field is the interest in the most intimate details of popular life. For proponents, this is a new style of developmentalism, defined by its careful attention to everyday practices – a modality they contrast with the clumsier, distant approaches of traditional aid. This bottom-up sensibility, and the fine-grained forms of knowledge work it has portended, animate the curious amalgams and creative technologies through which their ambitions can be reached. It also encourages a shifting field of ethical assessment, with participants trying to make sense of increasing evidence of debt crises by 2019.

Safaricom is at the centre of this industry, with M-Pesa providing an infrastructure for both gathering credit data and the repayment of debt. Once a telecommunications firm, Safaricom now dominates finance in the country. Not only does it provide Fuliza, M-Shwari and Okoa Jahazi (a popular airtime lending service), it also serves as the data and payments infrastructure for digital lending apps offered by banks, including Barclays, Kenya Commercial Bank and the Commercial Bank of Africa. These FinTech apps jostle with various other digital lenders, including the Silicon Valley firms Tala and Branch. Recipients of hundreds of millions of dollars in venture and equity financing, these latter firms have used Kenya as the testing ground and fulcrum for expansion to India, Mexico and beyond.

Kenya's mobile lending industry perhaps reached its apogee in 2018, with one journalist declaring it 'the digital credit year'. Most people use this debt for day-to-day household needs – including school fees and medical bills – and not merely the business investments for which they are touted (Totolo 2018). By mid-2018, 22 million Kenyans, or more than half of those with a mobile phone, were partaking in this new market. Digital loans now dwarf traditional bank

loans, amounting to 91% of loans in 2018 (MSC 2019). The most successful of these, Safaricom's M-Shwari, was approving two loans per second by late 2016 (or KSh 14 million in loans every hour).

But digital lending has become a matter of considerable concern. By 2019, it was clear that over-indebtedness was becoming a problem; people began speaking of a 'crisis'. Digital loans are extraordinarily expensive. Their short-term nature compels people to borrow often. If their fees were converted to the industry standard APR, M-Shwari would be around 90%, Silicon Valley's Tala around double that and Fuliza equivalent to 148.5%. As we detail below, many Kenyans object to the pressure they feel to borrow and the strong-armed ways repayment is pursued (see also Neumark, this issue). In one large survey, nearly two out of three borrowers reported having more than one digital loan, reflecting an urgent scramble to keep up with impending repayment deadlines (MSC 2019). Many are defaulting, finding themselves on a national 'blacklist'.

In other words, by 2019, the sheen was wearing off this curious utopia (Weitzberg 2019). Popular resentment, potential regulation and – as we revised this article – the Covid-19 pandemic all threatened to undo the energetic nexus of investment and aspiration. This was particularly troubling because the image of an expanding frontier – markets, borrowers and profit – was crucial to the financial inclusion imaginary. The closing of Kenya's frontier – even the evidence that financial inclusion was sliding into 'predatory inclusion' (Taylor 2019; cf. James 2014) – troubled the consensual vision in which corporations, governments and civil society could work together. As we discuss in closing below, what comes next is not clear, but in this article we endeavour to analyse the sorts of ideological work, organisational reformation and technological innovation that fuelled digital debt in Kenya. To do so, we build on a variety of research over ten years, including living in three working-class Nairobi neighbourhoods; travelling to central and western Kenya for interviews, ethnography and archival research; attending industry and government workshops and events; shadowing mobile money agents, technologists and users; and analysing a database of social and news media on the topic.

Intimacy, Infrastructure and the Family as a Frontier of Accumulation

Now intermediated by digital platforms and algorithms, we argue that FinTech firms generate novel forms of 'intimacy' in this frontier market. We consider this expansive work of establishing algorithmic intimacy along three registers. First, these firms have located the intimacy of the family as a frontier of accumulation. Second, user data has enabled firms to establish intimate knowledge of the Kenyan people, their aspirations, daily habits and social networks. Third, we consider how these conjoined registers of intimacy are reanimating the social. We explore how Kenyans trapped in a crisis of over-indebtedness negotiate the remediation

of social life by financial technology. In a context of economic shortage, many have been attracted to the seductions of digital debt – its promise of immediacy, anonymity and liquidity – but they have found, instead, a transformation and re-animation of social ties, anxieties and constraints.

We draw on both feminist scholarship and Africanist anthropology to consider the relations between intimacy, wealth and social reproduction. In the case of the latter, intimacy has most prominently arisen as a space of existential and material danger, with witchcraft accusations often directed at intimates rather than strangers (e.g. Geschiere 2013). From another direction, feminists have theorised 'intimacy' not as a private domain of authenticity but as a realm saturated by 'structures of dominance' (Stoler 2006: 13) that only seem distant and external (Berlant 1998). Intimacy, on this reading, is paradoxical: experienced as proximate but produced *in extenso* (Wilson 2016). We focus on the protocols, norms and anxieties that structure relations of intimacy, revealing the broader operations of capital and statecraft. Indeed, the infrastructures of mobile telephony and digital financial services do not erode the intimate domain but rather mobilise it as a site of accumulation, which requires monitoring its contents, producing knowledge about it and reformatting its contours.

Two trends capture our attention in this article. First is what we call 'algorithmic intimacy'. Safaricom is capable of tracking and harvesting a host of behaviours (from communications to transactions, and from movement to social networks) on a scale previously unimaginable. Safaricom's nearly 30 million users are monitored for personal and social data which is analysed and translated into meaningful commercial insights, including the design of credit scores, promotional offerings and new services. This is intimacy at a distance – infrastructurally known and formatted.

Digital infrastructures also enable new modes for accumulating capital. As Marxist feminists have stressed, capitalism engendered a division between the masculine realm of waged production and the feminised domain of unwaged reproduction. Today, though, the putatively private household is no longer just a 'background condition for capital accumulation' (Fraser 2014). Instead, Safaricom is pioneering a manner of mediating and extracting value from within the (spatially distributed) household – the family is now formulated as a network of exchange in which Safaricom is able to seize a margin of value for its own accumulation. The most evident way this happens is through the widespread use of M-Pesa for sending money to rural kin. As the infrastructural provider, Safaricom skims off a portion of the remittance (up to 20% in some cases). Yet, as our discussion of digital debt below makes clear, this is but one version of a whole array of ways in which intimate relations are animated and mediated for the capture of capital. Ordinary household expenses and Kenya's commodified social services are significant reasons for digital borrowing. In one 2019 survey, 67% of FinTech users reported using the apps for 'basic personal consumption' and 20% used them for emergency costs (FinAccess 2019). It is not merely that

unwaged household labour provides the unrecognised basis for the exploitation of waged labour; instead the family has been reformatted as a frontier of accumulation (Cooper and Mitropoulos 2009; Park 2020). To illustrate, we turn to the case of M-Pesa's mediation of kinship before examining how it facilitates a digital economy of lending.

Infrastructuring the Social: From Wealth in People to Wealth in Data

In 2003, the UK's aid agency awarded nearly £1 million to Vodafone's corporate social responsibility team. The effort eventually became a person-to-person mobile money platform, M-Pesa. Within a few years of its 2007 launch, M-Pesa was not only a commonplace among Kenyans, it was a substantial and growing portion of Safaricom's bottom line. M-Pesa quickly expanded geographically and socially, with the spatially extended family the foundation of its success (Morawczynski 2009; Mintz-Roth and Heyer 2016). M-Pesa's first prominent marketing campaign, 'Send Money Home', reflects the company's attention to this dynamic (Figure 2). Early advertisements showed red bills – reminiscent of Kenya's largest currency note – flying across the landscape, from young, urban wage workers to elderly relatives working the land (Kusimba 2021).

FIGURE 2. An iconic M-Pesa advertisement dramatised the intergenerational, urban–rural relation.
Source: Twitter

In displacing existing techniques for domestic remittances, like buses, M-Pesa consolidated value transfer within one digital infrastructure. Centralising exchanges through M-Pesa made household transfers legible in a manner previously impossible (Nelms et al 2017). Safaricom could now accumulate and analyse an ever-growing database for commercial insights: where and when is money deposited, sent and withdrawn? Who is financially tied to whom? How do these dynamics change over time? Moreover, the digitisation of money – the change in its material form – gave Safaricom the capacity to unilaterally set fees (unlike negotiations with a bus conductor). This threefold change – consolidation, surveillance and price-setting – would lay the ground for the FinTech boom nearly a decade later. In doing so, it also bound the extended family to the corporation.

For Safaricom, the family is not merely a subsidy for other productive activities; instead, M-Pesa makes the family a frontier of accumulation. African families have long subsidised commercial labour regimes (Cooper 1987) but M-Pesa provides a new means of accumulation. M-Pesa acts as an obligatory passage point for many extended families – mediating acts of obligation, care and support (Kusimba et al 2016). This enables it to seize a percentage fee of such remittances. In 2009, M-Pesa revenue amounted to KSh. 1.5 billion; by 2019, it was nearly KSh. 75 billion.

Safaricom has been able to generate profits in a manner distinct from banks. While banks' business models depend on a relatively limited number of substantial customers' deposits, telecommunications firms like Safaricom grew on the basis of small-scale transactions from many customers. As a result, growing the number of customers was less important to banks than it has been for telecommunications firms. Mobile money, therefore, emerged as an industry with financial and cultural expectations aimed towards capitalising on the incorporation of more – rather than wealthier – customers (Elyachar 2012; Dolan and Rajak 2016; Meagher 2018). It is the aggregation and enclosure of many people that enables accumulation.

Indeed, Safaricom was a pioneer of what Kenyans call the *kadogo* economy. From the Swahili for 'small', the *kadogo* economy refers to the shrinking of goods so that they are affordable to would-be customers who cannot accumulate larger sums of cash (Donovan and Park 2022). Individual servings of beef stock, cooking fat and washing soap now populate kiosks across the country. Many credit Safaricom for not merely driving down the cost of airtime, but also charging customers per second of calling (rather than minute) and offering scratch cards costing as little as KSh 5. Such a style of capitalism renders 'spaces and actors at the bottom of the pyramid knowable, calculable, and predictable to global business' (Dolan and Roll 2013: 123-124). But, it is expensive to be poor: these goods cost proportionally far more than when bought in bulkier quantities.

Safaricom's business model, in other words, is dependent on an accumulation of users. While no single individual may provide a substantial portion of profit (as it may be with a bank), their capacity to enrol millions of customers led

to enormous revenue. As a result, Safaricom is not invested in the nuclearisation of the family nor simply in the household as a bounded unit for the transference of property. Instead, Safaricom thrives on the extensive and variable forms of kinning (Howell 2003) and relatedness practised in Kenya. Households and kinship serve as frontier space in which value is (re)produced and extracted (cf. Guérin and Kumar 2020).

Such a reality points to the continued salience of an older insight from African studies, namely that wealth and authority, especially prior to colonialism, depended on the attraction of followers. In contrast to settings where durable forms of value and repertoires of extraction encouraged participants to uniquely define wealth as things, many Africans also considered wealth in terms of people. As Guyer and Belinga (1995) argued, however, the cultivation of wealth in people required the composition and use of specialised knowledge – ranging from spiritual and healing to agrarian and historical. Wealth in people, they suggested, required wealth in knowledge.

Safaricom accumulates and converts between wealth in people, knowledge and capital.[1] It eagerly accumulates new people in the form of customers, aggregations that produce network effects, generating more value with more users. Moreover, in recent years it has come to recognise that the data it gathers from users is itself a valuable form of knowledge. According to some industry observers, Safaricom can outcompete smaller rivals precisely because their quantitatively higher number of users reveals qualitatively richer data. The digitisation of domestic remittances (as well as its surveillance of mobile call, text and browsing behaviour) has generated a view of Kenyan exchange that is both more fine-grained and extensive than any other entity.

As one industry researcher told us, Safaricom has more up-to-date, detailed data than even the Central Bank of Kenya (cf. Park and Donovan 2016). Not only does it closely monitor the activities of its 30 million subscribers, running analytics to glean correlations and make predictions. It also conducts daily surveys through text messages with 1,500 Kenyans that query a range of experiences. As one employee noted, this is not only a more current assessment of people's financial lives, but also more sophisticated than anything the government could undertake. In addition to these extensive knowledge practices, the firm also invests in a variety of more intensive studies. One participant we know described it as 'fieldwork', with focus groups, interviews and participant observation conducted to, say, do quality control on new products or assist in the design of new services.

Safaricom's approach translates quantitative aggregation of a population into qualitative knowledge of individual users or social categories; the sum of this algebra renders new sources of capital. One of the most profitable ways is the focus of what follows: assembling user data for predictive assessments of creditworthiness. This requires producing commensurability as, for example, M-Pesa usage is correlated with proclivity to repay digital loans. It is a socio-technical project of engineering knowledge, social practices and even ethics. In what follows, we first

turn to the social world of this engineering – the financial inclusion community – before examining how digital data have facilitated a new lending economy and, finally, the sorts of manoeuvring undertaken by Kenyans in its wake.

The Curious Utopia of Financial Inclusion

One of the remarkable things about this sector is its investment in social research. Ranging from quantitative surveys to focus groups and even participant observation, financial inclusion professionals are unusually interested in popular practices. They hire and partner with academic researchers, working as what Maurer calls 'mobile money intellectuals' (2011: 301). Whether glossed as 'informal networks' or 'cultural norms', the behaviour of poor people is a keen object of study and it is not unknown to hire academic anthropologists (cf. Holmes and Marcus 2006).

Their research is aimed at identifying social proclivities and trends, mapping popular practices in order to redirect them toward digital infrastructures. For instance, recognising their importance as an asset, it is a longstanding trope to digitally replicate cattle. In other cases, development organisations and corporations have been keenly endeavouring to digitise and commercialise '*chamas*', the Kenyan term for cooperative savings and credit organisations. As Michael Kimani writes, *chamas* are an enticing object for capture by commercial firms because they are the 'socioeconomic fabric in Africa' (2018).

This para-ethnographic mode constitutes an ethical stance for those within the financial inclusion field. Their situated attentiveness to the needs, habits and aspirations of the poor is framed as a virtuous style of development: responsive and pragmatic in contrast to doctrinaire approaches. It also encourages participants to move easily between commercial ventures, research hubs, non-profit organisations and aid institutions. Consider one of our Kenyan friends, Gabriel. When we first met, he was employed as a researcher at a financial inclusion organisation but was also pursuing graduate studies on similar themes. A few years later – mindful of his obligations to his growing family and the new types of opportunities it would offer – he was working for a large corporation as a researcher (and frustrated by the lack of time he had for his doctorate).

Gabriel is indicative of the types of situated and shifting ethical reasoning that characterises this field. When we saw him in July 2019, he easily acknowledged the problems with digital lending: 'With finance, you have to ask if you're doing the right thing', he mused. He knew well that people were getting in over their heads with digital loans, but in our casual conversation on the topic, he did not condemn debt completely, noting that the 'high appetite for credit' is driven by real needs. Instead, he spoke of 'unintended consequences' and distinguished between Safaricom's lending operations and its other, more worrying, services. Like many we know from this research, his view is decidedly non-doctrinaire.

His opinion about financial technology has changed over time; he splits rather than lumps.

Data and the Design of Debt

Safaricom is a pioneer in these efforts, widely seen as uniquely knowledgeable about the practices of *wananchi* (ordinary people). One of the reasons for this is because Safaricom's business strategy depends on monitoring unexpected patterns of user activity in one service to develop new services. This requires not merely facilitating existing patterns of behaviour; rather, they redirect and cultivate social practices toward novel infrastructures of capture and capitalisation. For instance, Safaricom noticed users were storing value in M-Pesa accounts, despite the service not being regulated as a savings account. Because it was not a bank, Safaricom could not use those individual savings as a collective sum to be used for lending (cf. Peebles 2014). So, Safaricom layered new banking services on M-Pesa, turning Kenyans' existing but inert digital savings into value in motion.

Launched in 2012, M-Shwari is the most prominent of these. A joint offering with the Commercial Bank of Africa (CBA), M-Shwari was initially sold as a savings and lending product. By framing the product as furthering financial inclusion, Safaricom promised to contribute to its corporate slogan of 'Transforming Lives'. It was also key to encouraging 'stickiness', the firm's term for keeping customers from moving to competitors (Park 2020).

M-Shwari's origin is revealing of the curious logic of 'financial inclusion'. To design the service, Safaricom and CBA worked with FSD Kenya, a leading financial inclusion NGO (FSD Africa 2016; Breckenridge 2019). FSD Kenya aided with credit scoring, market research, product development and customer education. The assessment of creditworthiness was particularly important given that the targeted customers would be those without a robust history of bank borrowing. As a result, they relied heavily on Safaricom's customer data, including M-Pesa usage (e.g. amount deposited or sent; length of time as customer) and Okoa Jahazi history (i.e. record of repaying airtime credit). Safaricom's existing data provided a relatively reliable prediction of repayment, but by incorporating new data from users they refined the scoring model.

These early iterations of calculating creditworthiness were still relatively conservative. Around 60% of M-Shwari applicants were rejected as too risky, leading FSD Kenya to worry that too many would-be borrowers were being excluded from the system. Against CBA's risk aversion, FSD prevailed on the bank to provide targeted loan offers to 100,000 previously rejected customers. The bank agreed to take the first 4% of losses while FSD Kenya would provide a guaranteed backstop of up to KSh 30 million for additional losses.

This initiative was framed as an 'experiment' and when the results came in, they persuaded CBA and Safaricom to expand the frontier of lending. Only 5% of

loans defaulted, meaning FSD only had to pay CBA US$5,700. This new category of borrowers was considered twice as risky as existing users, and as a result the loans tended to be small: only an average of $1 per month. But if the accumulation of capital through fees was not spectacular, what this experiment offered in terms of data was crucial to reworking the revised credit scoring model for the whole population, adding new variables along the way. With these revisions, the overall rate of defaults dropped to 2% while M-Shwari was able to offer loans to 7% more applicants. As a result, 'more than 1 million discernibly poorer users accessed credit'.

This seemingly peculiar arrangement – namely, a non-profit guaranteeing the credit risk of a commercial bank – is reflective of an influential logic in Kenya. Governments in the global south, the argument goes, are simply too corrupt or inept to manage 'development'. Instead, the responsibility for improving the welfare of citizens is to be distributed between NGOs and corporations who can, in the words of FSD Kenya, 'make markets work for the poor'. Under the banner of public–private partnerships, initiatives like M-Shwari facilitate the expansion of CBA and Safaricom's business. As the need for FSD to backstop CBA's risk suggests, NGOs must often comport themselves in ways befitting a market logic. Yet, these are not businesses, and for all the subsequent success of M-Shwari, FSD's contributions remain grants, not investments for which a monetary return is received.

Industry observers point to the use of digital data in lending as a sea change. Where few own assets that are both valuable and transferable, banks have often hesitated to lend without securitising borrowers' property (Shipton 2011). Historical data, translated into predictive knowledge, is believed to offer a radically new way to turn the uncertainty of lending into calculable risks. Thanks to the ubiquity and centrality of mobile phones, people's everyday habits have been rendered valuable. Breckenridge calls this 'reputational collateral' (2019: 95) to highlight the way in which calculated perceptions of individuals' behaviour and resources can be used to reduce credit risk. If lenders in Kenya have historically struggled to find alienable collateral to secure loans, digital data is said to find a new way to control the future.

Beyond Safaricom, other digital lenders like Tala, Branch and OKash are at the forefront of extracting and analysing data. Downloaded onto people's phones, these apps are able to harvest calls, texts, location, transactions and more. Responding to criticisms that they have 'too much information', OKash emphasises the need to identify borrowers: 'strangers never give you a loan, [and] the better we know a customer, the better we are able to analyze a better limit and price for them' (Abuya 2018: np). Branch originally made users login with Facebook, giving the lender access to the expansive information on the social network. Tala, for its part, monitors a user for 'consistency, like making a daily call to her parents, and whether she pays her bills on time'. Users answer a brief questionnaire before Tala begins grabbing 'data seamlessly from smartphones' (Adams 2016: np). Innumerable variables – perhaps into the thousands –

are analysed for predictive insights, with results iteratively improved with each additional loan repayment or default. The CEO of one FinTech, Kevin Mutiso (2019), said 'digital platforms are creating trust'. He continued,

> Trust has been missing in the marketplace. I want to buy something off someone but I have never met them? In a lot of western markets you can do that very easily. In this part of the world, you're a bit skeptical because we live in a low trust society. What digital FinTechs are doing is creating a layer of trust. And this has never been there before.

Another digital credit scorer made the issue one of social intimacy, saying 'I think back to my mother who told me growing up that you will be judged by the company you keep . . . who you hang out with and how you interact with them is going to be part of how you're judged' in the world of digital credit (quoted in Fisher 2018).

Digitising Entrustment?

The rapid growth of digital debt and a subsequent crisis of over-indebtedness inaugurated new styles of negotiating everyday dependencies. Recall our opening. For the young men we were with, 'Fuliza!' was a ubiquitous enough brand name to be easily referenced mere months after its launch. It was common sense to enrol the algorithms of Safaricom's digital lending to sustain the intimate sociability of a pub. One of the remarkable things about this evening was that when our new friends introduced us to this pub, it was as a site of intimacy. 'This is our local', they said, despite the fact that they all lived a bus ride away from this downtown location. Self-described activists, these on-again, off-again students at the University of Nairobi spent many a night here, popping in for a drink to say hello or huddled for hours debating politics. They could leave their bags there, knowing the waitresses would look after them. In fact, they told us they could count on the waitresses to cover their tab once in a while, paying for the drinks out of their tips and letting the unemployed guys repay them when they could scrounge together some money.

In other words, what's notable about the episode was that there was, ostensibly, no need to invoke Fuliza. They had other routes to continue the night. But, the digital lending algorithm was importantly different from casual indebtedness among familiars. There are many reasons why the app was preferred at that moment. Perhaps they already owed the waitress. Perhaps it was better to bank her goodwill for the future. Perhaps they knew she was hard up that week. In contrast, they knew Fuliza would lend to them – provided they were not already in default with the app.

Parker Shipton (2007) has detailed the ways Kenyans living near Lake Victoria are mutually obligated, a generalised social condition that he refers to as

'entrustment'. Such 'fiduciary cultures' are not without their ambiguities; reciprocities are liable to slip into animosity and resentment if not managed carefully or if subject to undue stress. As Kusimba details, the distribution of money and debt among 'multi-sited' families is fundamental to care and productive of stress; it is, she argues, a type of 'distributive labor' (2021: 91–108). These young Nairobi men were part of another fiduciary culture, one based on shared urban sociality. That evening, James explained to us why Nairobi's downtown felt like home. He could come to town with hardly a Shilling in his pocket, relying on friends and acquaintances to buy him lunch, share their newspaper and cover his bar tab. His friend concurred, emotively explaining he 'felt sick' if he was away from the downtown social world for too long. They also recognised that Fuliza served a sort of analogous function, with algorithmic lending coming to exist along an array of social lending. For James and Victor, Fuliza was not so much a substitute but an additional path toward building enduring social relations.

The analogy, of course, is not a one-to-one mimicry. When Fuliza buys a round, it activates different sorts of knowledge, relations and futures. It also relies on a different apparatus of intimacy, with its own grammar and tempo. The same is true for other digital lending applications in Kenya. In 2019, many we spoke to worried that the digital lenders were engaged in an extractive relationship, rather than one of mutual obligation. In the social indebtedness analysed by Shipton, everyone is eventually going to be both debtor and creditor. This encourages flexibility, with due dates and terms of debt reworked and negotiated.

In contrast, FinTech apps approach Kenyans pre-eminently as borrowers. Instead of reciprocal obligations between creditor and debtor, Kenyans are recruited as only debtors by creditor firms. Such a transformation is akin to Graeber's (2014) distinction between 'communism', in which mutual aid predominates, and 'hierarchy', in which there are still ongoing relations but ones between unequals. When M-Shwari sets the price of borrowing, it does so unilaterally, according to its own commercial expectations, rather than unfolding in the more expansive considerations characteristic of entrustment or communism.

The uneasy manner in which Kenyans speak of digital lending reveals this shift. Digital debt has been adopted in conditions of considerable constraint, with many Kenyans stuck in a stagnating economy needing access to liquidity – no matter the cost – to make ends meet (Donovan and Park 2019). But the rapidity with which it grew betrays the enthusiasm of many who did not merely need credit but eagerly turned to *this* form of credit. FinTech offered a general substitution of interpersonal negotiations for the impersonal decisions of lending algorithms, their reliance on relations of intimacy notwithstanding. Digital loans offer liquidity without having to beg family or friends for a loan, with the accompanying sense of indignity, supplication or obligation. 'The apps', writes one columnist, 'have enabled those in need to take the loans quietly, saving them the

embarrassment of borrowing from friends [or] begging savings groups members to offer them loans'. In other words, part of the attraction of digital lending is the removal of intimate anxieties, entreaties and burdens.

Despite these comparative virtues, our informants call the FinTech rates 'extortionist'. One poem circulated on Twitter, with a young Kenyan attesting to the evils of 'addiction' to Fuliza. Many speak of being 'enslaved'. Safaricom, one HR professional told us, is 'putting people into chronic debt'. The lenders' pressure to repay – through text messages, calls and reporting – adds 'so much stress. It is embarrassing!' And the news has reflected this, calling the FinTech firms 'greedy', 'catastrophic' and the cause of debt-induced suicides.

Animating the Social

If digital lending redirects Kenyans toward hierarchical debt relations, it does not end everyday entrustment among friends and family. Borrowers in a bind often depend on family for help repaying, and this represents another way in which intimacy is enrolled into the logics of financial debt. It is not merely through mediating family relations and closely mapping popular practices that FinTech integrates itself into putatively private domains; it is also by obliging debtors to draw on their social relations to repay the lenders.

One salaried Nairobi woman we know, Ann, complained that these apps are 'putting people into chronic debt'. She laughed uncomfortably when telling us that her limit had recently dropped from KSh. 30,000 to a mere 1,600. What happened, we asked? 'Normally, I don't like debt', she explained, but she had borrowed on behalf of someone who had exhausted their digital credit. 'I knew they would not pay me in time, but I thought I would get the cash [from my other work] in order to repay the loan myself.' Yet, she missed the deadline and 'they put a fine, an interest rate' on her loan. Nodding along at the injustice, we asked: why did you take a loan for this person if you knew they would not repay you? This person, she explained, 'they are my cousin and have taught me so many skills. We have done life together.' This lifetime of debt, she suggested, was incommensurate with the loss of money and credit score. From one perspective, she thought, 'it might be a mistake, but . . . '. She shrugged her shoulders, letting the ambiguous emotions and sensibilities of entrustment stand in for any explicit logic. 'I don't need to borrow right now', she pointed out with a hopeful final note, 'so maybe my [credit] score will repair?'

In another case, a civil servant, Joseph, told us how a cousin came to him due to trouble with Tala. His cousin was seemingly a man of admirable worth: a fourth-year medical student, everything seemed to be going well. Yet, he came to Joseph in trouble. 'It was an unfortunate story', Joseph confided. The medical student had taken to sports betting, losing his savings and school fees. Ashamed to go to his parents – and afraid of the berating he would receive – he turned

instead to his cousin, Joseph. Looking through his finances, trying to see what it would take to dig his cousin out of the hole, Joseph saw he was in even worse shape, sitting on two unpaid digital loans. 'It's very easy to get this wrong', Joseph sympathetically explained to us. We made a deal, Joseph said, 'because he is a cousin, but he is more like a brother'.

The Sociotechnical Instruments of Repayment

Companies are aware of these intimate dynamics and attempt to mobilise family pressure, affect and obligation to ensure repayment. Collection agents for one digital lender, Tala, were reportedly using stolen credentials to learn borrowers' work addresses and the names of their children. With these, they threaten to show up and shame them or seize their possessions as their children watch (Faux 2020). Another lender, OKash, scandalised Kenyans when they started calling the phone contacts of defaulters. Collectors working for the firm looked through people's data and called the contacts labelled 'boss' or 'mother', telling them their employee or son was not paying his debts.

Such actions demonstrate the instrumentalisation of social expectations. Urban migration by young Kenyans has long been a source of national anxiety (White 1990). Spatial distance threatens to undo the generational hierarchies of standing and deference. Given this risk of frayed social relations and virtue, remittances from urban youth to rural parents are not best understood as gifts; rather, they are a form of debt children owe to their parents – an obligation they can never fully repay. This transfer of wealth is not only crucial to sustaining parents in material terms; it also acknowledges elders' claims on children's present and future labour. While a burden for many migrants, it is also a productive form of debt, one that maintains and extends bonds across generations. In calling a debtor's mother, then, companies like OKash generate shame because of the generational inversion these new relations of indebtedness enact: fathers being asked to pay the debts of sons, mothers those of daughters.

Kenyans have pioneered popular practices to rebuff the creditors' pressures. Some of these are dispositional: one man explained he would never help a debt collector pressure his employee or family member. His sensibility was not one born of a political consciousness of the indebted class; rather, it was just good sense to stay out of other people's money troubles. In these cases, it was an ethic of 'detachment' that made for good relations with familiars (Neumark 2017). The case of Fuliza is different. Because Safaricom ensures repayment for Fuliza by seizing incoming M-Pesa value – rather than having to employ debt collectors – there are no calls to dodge. Instead, we spoke to many people who reported buying a second SIM card – one for Fuliza and one for their ordinary M-Pesa activity. That way, they can still send and receive money as usual, without Safaricom seizing the value of outstanding Fuliza debts.

While the media has reported a number of cases of debt shame leading to suicide, for those with whom we have discussed digital lending, shame seems to exist as something of an open secret. One woman we know – who introduced us to a number of friends to discuss the topic – chimed in after long remaining silent: 'I defaulted, too', she quietly admitted. 'By the way, you get *stressed*.' This quiet admission suggests something of the ways in which these apps not only offer people autonomy such that they do not need to appeal to friends and family when strapped for cash, but that this has also enabled a form of individuation that, when it comes to defaulting, leaves people feeling isolated and ashamed. She explained how she cautiously keeps her phone face down to avoid familiars – or, even worse, potential employers – from seeing the cajoling text messages from creditors. 'It's so embarrassing. They text all the time.'

Conclusion

By 2019, the most prominent supporters of the industry were on their back foot. Bad press and popular resentment obliged the Central Bank to finally speak out, though by mid-2020 no concrete action was taken. Lending companies found their virtuous sheen to have rubbed off as media foregrounded the negative repercussions of digital debt. An industry group promised reforms through a voluntary code of conduct, and financial inclusion NGOs were compelled to address the gap between their developmental promises and the digital debt they did so much to promote.

The case of the latter is particularly revealing, given their role in convening financial inclusion's curious mixture of public and private. In a series of reports and speeches, FSD Kenya wrestled with the exhaustion of their imaginary. Confronted with evidence of a debt crisis, they returned to the sorts of knowledge work that orients their project of mapping intimate social practices for the purpose of novel developmental schemes. In contrast to their frequent touting of numbers of Kenyans with mobile money, bank accounts or digital loans – the 'inclusion' at the core of their ambitions – they created a new index in order to track something called 'financial health'. Using survey data about ability to purchase medicine or experiences going without food, among other things, this indicator was meant to move away from a vision that tries to 'maximise population access to formal [financial] accounts'. In addition, they proffered new vocabularies and models that might recuperate the waning promise of the industry they did much to promote. But, from our perspective, it is remarkable how narrow the frame remains: in advocating for 'consumer protection', 'price transparency' and even 'good regulation', the commitment to market-based provision of financial services was untouched. Instead, their leadership spoke of 'real financial inclusion' and 'meaningful finance'. There has been no new utopian vision, merely an adjectival modification of an exhausted one. What remains discursively impos-

sible is a utopian project of credit at a cost and duration that exceeds the short-term constraints of private profitability.

Meanwhile, the sort of data collection at the core of Kenya's FinTech industry continued apace, and the model pioneered in Kenya was rapidly being exported to other markets. What we have called 'algorithmic intimacy' is not merely market research for the era of big data. It is also a pronounced ambition by financial technology firms to mediate the communications, relations and exchanges within networks of kin and other intimates. The 'financialisation' of everyday life has often been noted, but usually with a focus on the privatisation of public goods. While this drives Kenyan digital debt, the industry also integrates into the family in order to skim a margin from transfers. They also rely on the family as a backstop, obliging borrowers to turn to their existing forms of entrustment in order to repay the capitalist debts. This is not, in other words, a displacement of earlier modalities, but it is a reconfiguration of their contours and further evidence of capital's reliance on putatively non-capitalist practices for its continued profitability (Bear et al 2015).

Acknowledgements

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Note

1. Sibel Kusimba (2021) has drawn on the wealth in people framework to explain the appeal of mobile money for Kenyans who depend on the circulation of cash within extensive kinship networks. Our interest is more how the corporation accumulates people (as well as knowledge and capital) through M-Pesa.

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L'économie des données de l'inclusion prédatrice au Kenya

Le Kenya est un marché frontière pour la « technologie financière », ou FinTech. Cette industrie – qui fusionne la téléphonie mobile et les données numériques avec les prêts commerciaux – a connu une croissance spectaculaire, des millions de Kenyans empruntant pour des dépenses domestiques, d'urgence et commerciales. La croissance frénétique de ce secteur a été alimentée non seulement par la recherche du profit, mais aussi par une aspiration résolument plus axée sur le développement, à savoir « l'inclusion financière ». Cet article analyse la curieuse fusion du bien public et du gain privé, les innovations technologiques et les types de travail de la connaissance qui sous-tendent ce domaine. Il examine en particulier la nouvelle manière dont les prêteurs numériques capitalisent sur l'intimité, convertissant les pratiques de parenté et de confiance en frontières d'extraction. Les données personnelles et sociales sont traduites en scores de crédit, les réseaux familiaux étendus sont médiatisés par les services financiers, et les relations interpersonnelles subventionnent les décisions de prêt risquées. Contrairement à une vision du capitalisme comme étant abstrait et aliénant, cette analyse met en avant les types de relations personnelles, les sentiments et les obligations qui sont incorporés. Grâce à un travail de terrain avec des emprunteurs, des membres de l'industrie et des régulateurs, nous montrons que le prêt numérique repose sur une conversion entre différents registres de richesse – en personnes, en choses et en connaissances – et nous suivons les négociations éthiques et les attachements anxieux qui constituent cette curieuse utopie.

Mots clés : dette, inclusion financière, intimité, numérique, Kenya