The Truth About the 'Single Source of Truth About Kenyans': The National Digital Registry System, Collateral Mysteries and the Safaricom Monopoly

By Special Correspondent

Kenyans walking to work on Nairobi's Haile Selassie Avenue on the 16th of June 2016 were shocked to find that a pile of well-worn identity cards and driver's licences had been dumped during the night on the pavement outside the Jesus is Alive Ministries' church. The identity cards were those that Kenyans mistakenly call the second and third generation IDs – one, dating from 1995, is laminated, and the other, issued after 2011, is printed directly onto plastic. Both types of cards were produced by Thales, a French parastatal, so they are administratively identical. On the front side, they present the card's serial number, the holder's identity number, full name, date of birth, sex, district of birth, place of issue, date of issue, signature, thumbprint; on the reverse are the functional categories of colonial indirect rule: district; division; location; sub-location.

None of the cards in the pile were the third-generation or digital IDs that Kenyans have been promised for a decade: the polycarbonate sheet, laser-printed with solid colour images and etched holograms containing, critically, a machine-readable chip and a full set of digital finger and iris biometrics.

The third generation card was first announced publicly in 2007 in the wake of an investigation by
the Kenya National Commission on Human Rights (KNCHR) into accusations of widespread
corruption and discrimination in the issuing of IDs. The commission's concerns were split evenly
between the general complaint about the cash bribes officials demanded to perform basic
administrative services and the more specific accusation that Somali-Kenyans were being
systematically denied identity cards and their basic rights as citizens. Behind both worries lurked
fears about the fragility of the laminated card, and its susceptibility to forgery. The notorious
weakness of the cards had much to do with the seven-digit identity number and the vulnerability of
the registry that was being used to authenticate claims for citizenship.

In 2007, the main archives of the National Registration Bureau (issuer of ID cards) contained the
scanned records of the inked fingerprints of 14 million Kenyans. In an attempt to bolster the identity
card system and the integrity of the register that authenticated applications for cards, the KNCHR
called for the fast-tracking of a biometric database – the Integrated Population Registration System
(IPRS). In 2009, the development of that system was awarded, apparently without controversy, to a
consortium from the Ukraine called EDAPS.

The appointment of a contractor for the production of the third generation cards was not so simple.
The 2005 Anglo Leasing scandal – where the Mwai Kibaki government was notoriously implicated in
the payment of a massively inflated tender to a British shell company for printing passports – loomed
in the background of the call for tender for the new identity cards. The processes were fraught and
contested, especially as losing bidders could bring show-stopping appeals to the newly established
Public Procurement Oversight Authority after 2007.

The call for tender for the new cards was issued in May 2009, specifying a "third generation ID
Card" with the establishment of an "elaborate infrastructure supported by appropriate software
modules, including installation of live data capture equipment both at the headquarters and in the
field offices, personalisation centre and a centralised database production facility, complete with the
necessary biometric and facial recognition features". The government allocated $10 million to the
project, and the international biometrics giants all submitted proposals. In September that same
year, the whole process came to a sudden halt when NADRA, the Pakistan identification agency (who
were making Kenyan passports) raised a successful protest about the decision of the tender board.

Thales continued printing the laminated cards after the tender collapsed, but in July 2011 the
cabinet refused to endorse their ongoing production, and the issuing of the indispensable IDs
stopped completely, prompting something of a national emergency. The Ministry of Immigration and
Registration of Persons issued a second tender in 2011 but that succumbed in the same way when
the French ID contractor, Imprimerie Nationale, protested its exclusion on the basis of the tender
board's sloppy paperwork. With the 2013 election looming, the ministry had little choice but to
restore Thales' contract to print the backlog of two million – rising quickly to four million – of the
new plastic (not laminated but also not third generation) cards.

That was the situation, at least as far as the ID cards were concerned, when Mwende Gatabaki

arrived to join the Office of the President from her job at the African Development Bank in Tunis in February 2014. Gatabaki was chosen as the architect of the new plan for identification and information-sharing – the National Digital Registry System (NDRS) – as she had extensive experience working on the networking requirements of the cumbersome Kenyan parastatals and the large donor organisations in East Africa.

Clean, complete, correct

The plan to register the entire Kenyan population "afresh" was first made public at the ConnectedKenya conference in Mombasa in April 2014. It was presented by Gatabaki, who was tasked with assembling a new government agency that would unify the different functions of birth and death registration, the registration of aliens and refugees, and the issuing of identity cards, which were all spread across the detached Departments of Civil Registration, Immigration, Refugee Affairs and the National Registration Bureau.

The Act establishing the new service had already been passed in 2011. It called for a new co-ordinating agency that would develop a unique identifier for every person, manage all issues related to citizenship and immigration, and maintain a comprehensive and accurate national population register. Gatabaki's plan drew on the heightened public concern around national security in the wake of the September 2013 attacks on the Westgate shopping mall. It lay out a potentially revolutionary reorganisation of the entire Kenyan state around a "single source of truth". The new database would link together existing and new registries of population, land holdings, companies and moveable assets. Gatabaki argued that the new database and registrations would be significantly cheaper than the cost of upgrading existing but separate projects of registration and identification underway in the separate departments. To do all of this required a break from the existing forms of paper registration and a new set of purely digital biometrics for every person in the country.

> Gatabaki's emphasis on a compulsory national round of digital registrations was controversial, to put it mildly, because many Kenyans – especially those supporting the CORD coalition that was kept from power – were still furious about the biometric debacle staged during the previous year's national elections when the biometric voter identification kits supplied by the South African firm, Face Technologies, failed.

This initial presentation made no mention of a new digital ID card, but the following day the CEO of the state ICT Authority explained that the government was preparing to spend nearly $100 million on the new database and that the new ID cards would have a chip or magnetic strip that would allow police officers on patrol to confirm authenticity.

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Political mistrust was not the only serious problem, however; over the previous decade, the procurement processes for the long-promised identity card had repeatedly collapsed into a mess of conflicting corruption allegations.

Indigenising capital

Gatabaki's project aimed, chiefly, at replacing the unreliable and limited paper-based population register with a digital biometric database. The new biometric system would have established a single official identity for all adults in Kenya for the first time and it would have allowed real-time, remote biometric authentication. But it was also motivated by an effort to create a new kind of property by registering collateral in moveable assets, such as vehicles, farm animals and companies.

Meanwhile, the EDAPS consortium had been busy working to build the IPRS, linking together the main repositories of identification and citizenship status. EDAPS first built the IPRS connections between the National Registration Bureau's ID card database and the Ministry for Immigration and Registration of Persons (MIRP) passport and aliens registries. In 2010 they began to incorporate new data from the birth and death registries managed by the Department of Civil Registration. The following year, 2011, they built automated two-way links between the IPRS and the databases maintained by the two newly established credit reference bureaus (CRBs).

This relationship allowed the CRBs to do real time confirmation of the identity of the new applicants for credit (using automated queries against the linked civil registration and ID card records). Much more importantly for the broader political economy in Kenya, and the fate of the NDRS, it also pushed blacklisting data into the IPRS itself. The listing of defaults inside the state's IPRS – what the Credit Information Sharing Association of Kenya (CISKenya) described as negative information – provided a simple, effective and real time sorting and coercive tool for the new mobile credit providers looking for instant decision-making systems. This simple link had the effect of separating Safaricom, with its troves of data on millions of users' spending behaviour, from the broader alliance of formal lenders who were looking to build database profiles that would differentiate customers based on sharing positive (payments) and negative (defaults) information.

Safaricom – the monopolistic telecommunications firm that has created the globally distinctive system of mobile money known as M-Pesa – was able to develop simple forms of virtual reputational collateral using its own automated assessment systems and its own identification and authentication processes. The state's existing population register was sufficient for its needs, where the banks' credit information sharing (CIS) processes – with their demanding templates of data and very high errors of identification – faced continuous failures and material resistance.

The failure of the new digital identification scheme was the result of a conflict between the formal banks and Safaricom. It was also a struggle between different types of credit markets. On the one hand, the banks wanted to build credit reporting systems and new government registration arrangements that would allow individuals and firms to formalise non-fixed assets, such as vehicles and livestock, which would then act as new forms of collateral for further borrowing. The advocates of these assets registers and of the banks' universal credit reporting systems were opposed by Safaricom (in practice more than in public) and eventually by the leaders of the Kenyan state, who championed a simple and effective system for delivering unsecured, high-interest micro-loans that did not require collateral registers.

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The advocates of the biometric plan justified it by appealing to the need for certain and secure identification, for stronger national security (and policing) and better tax coverage and recovery, but what distinguished it from the already existing plans for population registration was the effort to build a new kind of asset register – a database describing real, not informational, collateral assets. The National Digital Registry System plan proposed a joined-up architecture of state databases that brought the management of private collateral into the core of the state's business. Aimed at the interests that the established banks had in the development of reliable, accurate and complete credit histories, it was also a radical effort to address the informational void that surrounds property on the African continent.

As Safaricom's monopoly status became painfully obvious after 2010, the banks' advocates increasingly argued – and with good reason – that the most serious weakness in the Kenyan economy lay in the difficulties that small businesses faced in securing credit. Policy makers argued that thousands of these small firms possessed moveable assets – buildings, vehicles, equipment, products, animals – that could provide secure collateral for formal credit when provided with the right administrative and information processing tools. This was the idea behind the NDRS – a centralised data exchange that would make information from the discrete registries (for example, of companies and vehicles) available to lenders. At the same time, this kind of centralised data hub would offer non-bank lenders a quid pro quo for sharing information about their customers' servicing of existing loans. This idea – that the NDRS would, finally, make it easy for financial institutions to appraise borrowers – was at the heart of the Gatabaki proposal. "A central repository of personal and corporate information will facilitate banks in their credit appraisal," as the Central Bank governor explained in endorsing the project in October 2014, "This should not only ease access to credit but also reduce costs of credit, given the lower search costs."

In fact, of course, that integration never happened. Instead, the Commercial Bank of Africa (CBA), in alliance with Safaricom, developed its own separate scoring mechanism that drew on data from Safaricom's transaction database specifically to identify borrowers who did not meet the initial basic criteria that were derived from Safaricom airtime purchases. The resulting scorecard worked only too well and – combined with the basic identification and simple blacklisting supported by the IPRS – it meant that CBA and Safaricom could issue M-Shwari loans without any need to look up or report data to the credit bureaus; the credit information templates of credit sharing were too cumbersome and too slow and would have ruined the rapid decision-making that is one of the attractions of Safaricom's mobile lending.

From the outset, the CBA, like many of the other non-bank credit providers in Kenya, used credit information sharing only as a last resort in the effort to recover outstanding loans. After 120 days of non-payment, the bank reported delinquent M-Shwari debtors to the credit bureaus. These records, almost all of them negative reports, rapidly inflated the population covered by the CRBs from 1 million people in 2014 to 4 million the following year. This expansion was the exact opposite of the reputational collateral that the bankers had long used to justify credit sharing; it measured, instead, the dramatically augmented pool of those denied formal credit at any cost.

By the time that Gatabaki announced the NDRS project in April 2014, the effort to create a technological platform to foster reputational collateral for ordinary Kenyans had effectively failed. Over the following year, the balance of informational power shifted decisively towards Safaricom and CBA. Few people made the argument publicly, but the telecom giant had clearly come to exercise monopoly control over the heights of the Kenyan economy. Their interest in micro-loans – while profitable and useful to borrowers – did little to make formal credit available to individuals or

companies. The CIS system was working only as a blacklist available to Safaricom on the IPRS platform and, far from working as a solution to the problem of asymmetrical information for other lenders, it simply encouraged local banks to deny ordinary Kenyans credit.

The Safaricom monopoly

Gatabaki's scheme faced resistance from within the state, not least because the World Bank's Kenya Transparency Communications Infrastructure Project (KTCIP) had been pouring money into the renewal of the old IPRS. As the NDRS was being debated, the Bank was busy upgrading the IPRS, supporting digitisation of the existing land and company registries, strengthening the administration of the fifty newly devolved county centres of government, and connecting all of the divisions of the state to an accounting database. The KTCIP overhaul reduced some of the pressure for repair of the existing state information systems, but it does not account for the collapse of Gatabaki's scheme, which would in fact have been bolstered by the same processes. The real reason lay in the ascendancy of the highly simplified information systems controlled by Safaricom, the explosive growth of M-Shwari mobile loans offered by the CBA and the decline of the political influence of the other established banks.

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Two financial relationships were key to this influence. The first was the joint ownership of Safaricom between the British telecorp 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. By 2017 the state was earning Sh60 billion in tax and licence fees, and an additional Sh12 billion in dividends – a total that meant a tenth of the revenues raised by the state came from a single firm.

During the year that the NDRS was being debated, Safaricom converted its M-Pesa monopoly over pre-paid customers and financial transactions into the wildly successful M-Shwari microcredit product. In the process, it transformed the Commercial Bank of Africa – substantially owned by the Kenyatta family – from a bespoke bank providing services to the elite to one of the most profitable banks in the world, offering credit and banking facilities to the majority of adult Kenyans – most of whom were very poor. During 2016, 35 million Kenyans used mobile banking to conduct 1.5 billion transactions for a combined value of Sh3.5 trillion. The number of wretchedly but newly employed field agents servicing this finance industry rose by 10 per cent to 165,000 individuals in the same year. And Safaricom exercises a textbook monopoly over the field, controlling 65 per cent of the SIM card subscriptions and 84 per cent of the mobile banking transactions.

By the end of 2016, M-Shwari was an even purer monopoly of the mobile credit market than its M-Pesa parent. It was being used by 16 million customers to take out 64 million small loans with a total value of $1.4 billion. One in five Kenyans were borrowing from M-Swari in a normal month. A highly simplified, stripped-down informational architecture that exploited the very limited capabilities of the Simcard Toolkit and the IPRS (the opposite of the integrated, interoperable and real-time biometric system proposed for the NDRS) was key to the explosive successs of the Safaricom-CBA product.

In contrast with the NDRS, the M-Shwari loans imposed no new identification process on borrowers.

For loans of less than sh2500, M-Shwari relied only on the original M-Pesa paperwork – sight of the national ID and a completed application form – that each customer is supposed to have submitted to load the M-Pesa menu and the IPRS blacklist. This frictionless simplicity – turning ignorance and convenience into effective instruments of profit – is now internationally called the "tier-based Know-Your-Customer" procedure. It is intrinsically the opposite of the "clean, complete, correct and secure" registration process that Gatabaki envisaged for the NDRS. It is important to note that it is an instrument of monopoly power because Safaricom can control its risk exposure by relying on the data it owns about users' purchases of airtime and their relationships with other users. That information – and possible histories of impersonation and PIN-swopping – is not available to the firms' competitors. It is only in the final decision of blacklisting borrowers that Safaricom reports unpaid M-Shwari debts to the CRBs, effectively blocking those borrowers from future credit and their competitors' access to future customers. In the short, in the three-year life of M-Shwari, the number of Kenyans – most without any prior connection with the formal banking system – added to the blacklist shared between the CIS and the IPRS has reached three million people (a tenth of the adult population). And nearly 400,000 of those blacklisted have been denied access to future credit for failing to settle debts of less than sh200.

In the years since the demise of the NDRS, Safaricom's relationship with the Kenyan state has only grown more intimate. The company was an immediate beneficiary of the 14 per cent cap on interest which the Kenyan Central Bank imposed on formal lenders in September 2016 – not least because CBA successfully defended the argument that the 7.5 per cent monthly fee on M-Shwari was an administrative charge and not interest. (The effective interest rate offered on M-Shwari loans approaches 140 per cent over a year of borrowing, but this rate – ten times the legal limit imposed on the formal banks – was still much lower than the returns demanded by informal money lenders.) Safaricom has taken on many of the trophy projects pursued by the Kenyan state since, including a national CCTV surveillance network in 2016, and an e-citizenship project that takes up many of the goals of online convenience that motivated the NDRS.

That the Kenyan state has been strengthened by the rise of Safaricom is probably most evident in the doubling of the population of formal taxpayers in this same period. Yet, it is also clear that this relationship has defeated the NDRS's goals for addressing the weaknesses of formal credit provision for ordinary Kenyans, especially for firms and for individuals looking to invest relatively large amounts in productive investments. In place of the revolutionary, panoptic over-reach of Gatabaki's National Digital Registry System, Kenyans have the simplicity and efficiency of M-Shwari. In comparison with the goals of full credit reporting and asset registries, this looks very much like the old pattern of skeletal registration and brutal administration that Africans have long had to endure.