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Published Version:
Sam, J.S., Chakraborty, A., Srinivasan, J. (2021). Cashlessness in India: Vision, policy and practices. TELECOMMUNICATIONS POLICY, 45(8), 1-6 [10.1016/j.telpol.2021.102169].

Availability:
This version is available at: https://hdl.handle.net/11585/820173 since: 2021-05-12

Published:
DOI: http://doi.org/10.1016/j.telpol.2021.102169

(Article begins on next page)

CASHLESSNESS IN INDIA: VISION, POLICY AND PRACTICES

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"To break the grip of corruption and black money, we have decided that the five hundred rupee and thousand rupee currency notes presently in use will no longer be legal tender from midnight tonight, that is 8th November 2016...The five hundred and thousand rupee notes hoarded by anti-national and anti-social elements will become just worthless pieces of paper. The rights and the interests of honest, hard-working people will be fully protected."
-Translated from Indian Prime Minister Narendra Modi's national address in Hindi, November 7, 2016[1]

It was our conversations following India's demonetisation drive in 2016[2] that triggered our academic interest in the phenomenon of cashlessness, which in turn, led to the call for this special issue. Since the late 2000s, there has been a global convergence on the understanding of cashlessness as an instrument for a more transparent, efficient and inclusive society, from various quarters including, but not limited to, national governments and intergovernmental organizations, business and financial agencies (especially those working in the digital money/payments sector), policy think-tanks, and international development organisations. (Mukhopadhyay, 2016). Shaped by a burgeoning anti-cash agenda at the international level, the idea of cashlessness gained prominence in Indian policy and governance circles, with a shift to "faceless, paperless, cashless" being identified as a key role of Digital India, the GoI's flagship programme launched in 2015 (Athique, 2019; Daya & Mader, 2018; Gabor & Brooks, 2017). A few months after the launch of the Digital India campaign, India became a signatory to the Better than Cash Alliance (BTCA)[3] in

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[1] Business Standard (2017) https://www.business-standard.com/article/economy-policy/full-text-pm-modi-s-2016-demonetisation-speech-that-shocked-india-117110800188_1.html. All URLs in this editorial have last been accessed on 23rd March, 2021.

[2] Two attempts at demonetization of high value currency have been undertaken in India. In January 1946, notes of Rs 500 and above were taken out of circulation. The justification for both the events was framed around the need to address black money in the economy. The RBI Governor, Chintanman Deshmukh, objected to the initiative arguing that it would not generate any significant additional tax revenue. He also cautioned that the Government would need to ensure that honest persons should not experience harassment.
In January 1978, notes of Rs 1000, Rs 5000 and Rs 10,000 were demonetized with an eye to counter black money, forgery and illegal unauthorized printing of notes. Again, the then RBI Governor, did not favour the policy since it had an insufficient understanding of the form in which black money circulated in the economy. He argued that instead of existing as a hoard of cash, black money was converted very quickly into other forms. He also predicted, correctly, that in the event of demonetization, high value currency will be converted into lower denominations through paid agents. (https://timesofindia.indiatimes.com/blogs/cash-flow/demonetization-in-1946-and-1978-stories-from-the-past/)

[3] The BTCA, a UN agency and an implementing partner of the G20 Global Partnership for Financial Inclusion, aims to expand financial inclusion through the digitalization of social cash transfers.

September 2015, joining 74 other national governments, companies, and international organizations. The Indian demonetisation experiment, the largest of its kind, in a democratic country, too gathered considerable global attention, as a push or even a 'jolt' towards cashlessness and a digital economy (Agarwal, 2018).

Mainstream discourse attributes cash to the underground economy (Schneider & Enste, 2002); with Harvard economist Kenneth Rogoff (2016) identifying cash as a "curse" which ails the world today, and arguing that cash is used for tax evasion, corruption, financing terrorism, the drug trade and human trafficking. Clearly influenced by this line of thinking, the Indian PM, Narendra Modi, has referenced Rogoff in his interviews to the press to justify the need for a shock demonetization in India saying it would "break the grip of corruption and black money" (Business Standard, 2017; Chengappa, 2016). Another key plank in the vision of cashlessness in India is financial inclusion, and this echoes a global developmental agenda from organizations including the UN, ITU, the Inter-American Bank and Grameen Foundation. . The United Nations Capital Development Fund discusses financial inclusion closely in connection with the UN's Sustainable Development Goals 2030. The m-Pesa success story in Kenya since 2007 tied financial inclusion conversations firmly to the introduction of digital technologies - specifically, mobile money - and away from cash. Even closer home to India, in a 2014 report, the McKinsey Global Institute identified digital payments as one of 12 "empowering" and "disruptive" technologies that can improve the standard of living for Indians across the board (Kaka et al., 2014, p.1).

In the last few years, the move towards cashlessness has taken various forms across the globe. For instance, the use of cash has steadily decreased in Scandinavia, in a paradigm that will lead to a cashless society by 2030 (Lejczak, 2015). While the idea of cashlessness has been embraced globally, there are vast differences between conception and implementation, goals and outcomes of cashlessness. For instance, as Fouillet et al note in this issue, Sweden backtracked on its efforts to become completely cashless by 2023 less than one year after announcing it in 2019. In the Indian case too, following the experience of the demonetisation, policymakers learned that the cashlessness agenda had to be concurrent with a "less cash" agenda (Athique, 2019). Concomitantly, the demonetization drive also brought up concepts like digital payments, and e-wallets in the public domain. Meanwhile, the cashlessness agenda in India has also shifted over time with the 2020 COVID-19 pandemic. Many stakeholders including GoI, finance institutions and small and large businesses have been actively promoting the cashlessness agenda in the aftermath of this pandemic.

The policy trajectory of cashlessness in India

A crucial aspect of operationalising cashlessness is the creation of digital infrastructures and enhancing digital payment systems, much of it fuelled by the recent proliferation of mobile phones in developing country contexts. In the Indian context, however, the conceptualisation and rhetoric around digital payments is broad. The central policy think tank of the Government of India (GoI hereafter), Niti Aayog, defines digital payments as "any transfer of funds which is initiated by a person by way of instruction, authorization or order to a bank to debit or credit an account maintained with that bank through electronic means and includes point of sale transfers; automated teller machine transactions, direct deposits or withdrawal of funds, transfers initiated by telephone, internet and, card payment" (Watal, 2017).[4] The pandemic has also accelerated an expansion of what digital payments means in India now. While in the legal definition, from over a decade ago, digital payments can mean a transaction ensued electronically between different bank accounts, increasingly with new technologies becoming available in the banking and financial sectors, the policy and business conversation around digital payments and indeed cashlessness has moved towards cardless and contactless transactions. We argue that this broader understanding of digital payments and the manner in which it is employed in India (in various legal, political, administrative, financial and social contexts) is sufficiently nebulous with a view to include as many people as possible under the broader rubric of financial inclusion .

The cashlessness (or less cash) agenda in India serves many purposes: on the one hand, as we saw, it is about fighting corruption and formalizing the economy; at the same time, it is also about financial inclusion and plugging leakages in government-to-person direct payments of benefits (Mukhopadhyay, 2016). With the onset of COVID-19, the health and hygiene aspects of cashlessness have joined transparency and curbing corruption as its important goals. It has also spurred conversations on the introduction of a state-backed (rather than bank mediated) Indian digital currency which will be hosted completely on smartphones without a physical counterpart (Mukherjee, 2021).

From the government's perspective, the first step towards enabling digital payments and cashlessness ecosystems was the creation of bank accounts for the unbanked. The movement from being banked, ie. opening bank accounts, to getting access to ATM cards to increase in mobile and contactless payments can be observed in the policy trajectory on financial inclusion since the 2000s. The Bill and Melinda Gates Foundation notes that between 2014 and 2017, the percentage of the Indian population with bank accounts has risen from 54% to 78%; and the success of Prime Minister Narendra Modi's "Pradhan Mantri Jan-Dhan Yojana"[1] (or PMJDY) launched in August 2014, has been attributed to this rapid growth in the number of adults with access to the formal banking system[2]. The following year, the GoI launched the "Digital India" initiative which focused on developing digital infrastructure with the aim of rapid digital transformation affecting many sectors of the society: public services, banking, telecommunications and healthcare to name a few. This policy also led to the introduction of the paygov platform interface, an application developed by the Ministry of Electronics and Information Technology to facilitate online payments through internet banking, credit cards and debit cards; and BHIM app (a mobile money app that

[4] Notably, the legal definition as provided in the Payment and Settlement Act, which is cited by Niti Aayog in its definition, does not use the phrase "digital payments" but describes an "electronic fund transfer" which the think tank uses as the operational definition.

enables bank-to-bank payments), and an increased push for the adoption of Aadhaar (a 12-digit unique identification number that Indian citizens can obtain by submitting their biometric data) by the government. Together with Aadhaar (India's biometric identification system) and mobile banking, these "*Jan Dhan*"[5] accounts constitute what the GoI often refers to as the JAM (Jan Dhan-Aadhaar-Mobile) trinity: an infrastructure used by the government for direct benefit transfers to citizens (Masiero, 2017). The move towards using biometric technologies for public service delivery and government payment transfers is also a global discussion; in these discussions such technologies are termed as 'humanitarian technologies' which plug leakages and ensure better service delivery for those in need (Jacobsen, 2015).

The digital infrastructure undergirding policy shifts focussed on cashlessness such as JAM and demonetisation have been at the receiving end of both praise and criticism. Most recently from Gita Gopinath, the present Chief Economist of the International Monetary Fund lauded the JAM infrastructure (NDTV, 2021). However, scholars studying e-governance in India have also shown that while the government's rhetoric on such technologies is overly optimistic, as now the entire service delivery process becomes traceable, public officials seldom take into consideration the infrastructural disadvantages such as limited Internet connection or the problems that a complex technological interface poses for various sections of people, especially those they seek to include (see for example Mudliar, 2020; 2021). In the case of demonetisation too, several of the critiques of this policy, including by Indian economists such as Amartya Sen, Jayati Ghosh, CP Chandrasekhar and Prabhat Patnaik, ex-Prime Minister, Manmohan Singh and ex-governor of the central Reserve Bank of India and ex-Chief Economist of the IMF, Raghuram Rajan (Business Today, 2016; Ghosh, Chandrasekhar and Patnaik, 2017), pointed out how limited access to digital infrastructure could negatively affect small and medium size enterprises as well as other sections of India's heavily cash-based economy. The confluence of the push towards cashlessness and the use of biometric technology to achieve it has also been criticised by some as ultimately being in pursuit of user data (Jain & Gabor, 2020; Mader, 2016).

Institutions and stakeholders of cashless India

Key to the cashlessness trajectory in India has been the establishment and role of new entities such as the National Payments Commission of India. The introduction of payments banks, a new financial institution in India where non-bank entities, both public and private, are permitted to provide financial services such as mobile banking, internet banking, and debit cards to customers, has also been another milestone in this trajectory (Rea et al., 2016). Further, the entry of a range of private Indian fintech companies and products in this space, including digital wallets from companies like PayTM, Airtel, and Vodafone, and credit from ZestMoney and LazyPay, has also played a significant role in the trajectory of cashlessness in the country, including at the policy level. The new and large number of actors in the landscape of digital payments raises a number of

[5] Translated to 'people's wealth'

questions, including how these actors interact with each other, how the material properties of payments systems shape policy, and more broadly, the political economy and politics of design.

Nor is it only the *design* of digital payment technologies, systems and policies that leads to interesting questions. Any understanding of the financial landscape in India would be incomplete if it does not pay attention to how these systems are appropriated, resisted and used in practice. In light of the vision of empowerment associated with the introduction of these systems, it is especially important to ask - Who gets empowered and how? Who gets left out and how? These questions also take us from the supply to the demand end of the cash and cashlessness debate, and to the practices of those who *use* cash, or its varied alternatives (Maurer, 2015; Morawczynski, 2009; Rea & Nelms, 2017). There is now a rich literature that examines the many reasons why cash or its alternatives might be valued and the specific functions it is valued for (Adamba et al., 2016; Aker et al., 2014; Dalinghaus, 2019; Dzokoto & Aggrey, 2017; Jazzolino & Wasike, 2015; Nandhi, 2012; O'Neill et al., 2017; Zelizer, 1994, 2005, 2011).

The above literature also finds that different demographics might value and be able to leverage cash (or its alternatives) differently. This fact is particularly important in light of the fact that policy and technology design often do not take into account the considerations and constraints of end users. For instance, if we consider access to money through the lens of gender, we encounter some striking paradoxes between envisioned and actual outcomes of financial inclusion efforts. Media outlets have reported that the gender gap in opening accounts has also been reduced (Biswas, 2018). Findex (the World Bank index for financial inclusion) estimated in 2017 that 77% of Indian women own a bank account against 43% in 2014 and 26% in 2011. If this basic measure of financial inclusion is taken into consideration, women are more financially included than before. (Kohli, 2018). However, these reports also show that half of the accounts belonging to women lie dormant. (Biswas, 2018). Another study further found that among some female sanitation and domestic workers in Uttar Pradesh, India, women's use of their own bank accounts declined with the issuance of ATM cards which tended to be controlled by their male relatives (Sam & Chakraborty, 2019). Thus, while government reports suggest the volume of digital payments has increased since 2016 (Niti Aayog, 2018), the above research suggests that this does not always translate to the desired diversification of the user base.

The design and use of cashlessness policies and technologies in India

The discussion in the previous sections shows the variety of institutions, stakeholders, technologies and policies imbricated in the unfolding of cashlessness in India. Furthermore, there are legal, economic, social, *and* technological concerns associated with the design and experience of cashlessness in India. Taking these considerations into account, this special issue consists of an examination of the design and use of cashlessness policies and technologies through multiple disciplinary lenses.This issue includes contributions that interrogate the vision, implementation and enactment of cashlessness with primary and secondary empirical data on cashlessness in India. These articles draw on fields spanning anthropology, business and management, consumer psychology, economics, and policy studies; they also embrace different methodologies including quantitative surveys, ethnographic fieldwork, and policy analysis. The contributions to this special issue can be analytically organized around two complementary foci: first, the design of cashlessness in India, including the technological vision and systems undergirding it, and policies that it entailed; and second, the practices of the end users experiencing cash and cashlessness in India.

One of the goals of studying the design of cashlessness was to understand how the goals of cashlessness have been envisioned in the country over time. We keep the definition of design broad here on purpose since both the policy and technological systems pertaining to cashlessness are of interest to us, as also the multiple disciplinary understandings of how design takes place. Consequently, the SI tries to identify key moments or events which need to be discussed while considering the design of cashlessness in India, such as demonetization initiatives, Digital India, JAM, and responses to the COVID-19 pandemic. The effort was also to understand the manner in which a variety of agencies have contributed to developing these goals over time, including digital credit and payment start-ups and international agencies. The design theme also included a study of the policies around cashlessness. For instance, an important consideration was tracing the manner in which the role of cash was envisioned in the development of policy. From a future that had initially been touted as cashless, this trajectory has gradually moved towards reconciling with a less cash future instead. The introduction of regulatory entities such as the NPCI must also be considered in order to understand the larger policy framework. The existence and role of financial entities is another component of this complex framework. For instance, to a large extent, India has followed the bank-led rather than the telecom-led model of mobile money. Although this was expected to change with the introduction of payments banks in 2015, recent reports indicate that 5 out of the original 11 payments banks ceased operations in 2019 (Merwin, 2019). And finally, it is not possible to consider policies on cashlessness in isolation from the larger policy framework on digitalization. For instance, the central role of Aadhaar, the biometric identification system, in the envisioning and implementing of cashlessness in India needs to be examined much more thoroughly.

As a complement to the study of the design of cashlessness, we incorporated a "worm's eye view" (Cross, 2010) which focused on the situations and practices surrounding cashlessness on the ground in India. This allows us to highlight people's varied "monetary repertoires" and their decisions to use cash or other forms of payment including how these shift over time (Maurer, 2006; Maurer, 2015; Tankha, 2016). Prior to the demonetization of 2016, debit cards were the most popular form of digital payments used for daily transactions in India (Pal et al., 2018). Till two years into the demonetization experiment, Indian consumers preferred bank transactions over mobile payments (Daya & Mader, 2018). Of course, more detailed nuances can be read into these larger trends around practices. For instance it is also important to understand *when* a particular mode of payments is preferred over another. This also leads us to the *why* question: what exactly do people value in cash and what do they value in operating without cash and other payment media? An understanding of practices around cashlessness is essential since it makes clearer the human and social infrastructure that is required for the functioning of the physical infrastructure around digital payments.

The papers in this special issue address a range of concerns. The paper by Dipayan Ghosh falls on the design end of our analytical spectrum. It explains the ambitious Digital India program and its endeavour to digitally transform India, including through technological infrastructures for digital payments. The paper argues that such policies and programs lead to greater collection of data and to the implementation of automated decision-making processes. Based on an analysis of this policy, the paper examines its implications for data protection and data privacy. It suggests that the use of such data may lead to the "commercialisation of bias," i.e. the use of algorithmic technologies that shape citizen experiences and wherein unilateral power rests in the hands of the government and industry. The concerns flagged by this paper are especially pertinent given the sensitive nature of financial information.

Fouillet, Guérin and Servet's paper considers aspects of both the design and practice of cashlessness in India. Historicizing GoI's most recent attempt at demonetisation in 2016, the paper tracks the shifting motivations of the government over time in this case. Focusing on the design of demonetisation, the paper identifies GoI's initial stated goals for demonetization: to eradicate illegal economic activities and the formalization of the economy. But in practice, these stated objectives were either not achieved (eradicate illegality, control corruption, reduce money laundering) or partially achieved (eradicate informality). The paper then uses official RBI data to show that what has been achieved on the ground is that digital finance has received a boost: card payments have declined while POS and mobile banking have increased in the period between 2016 and 2020.

Liébana-Cabanillas, Japutra, Molinillo, Singh and Sinha's paper takes a slightly different position on digital payments. It juxtaposes India's perceived position as a leader in the digital payments revolution against the relatively low and slow adoption of mobile payments in the country. The paper provides a conceptual model on technology adoption in the context of digital payments. Using survey data from the National Capital Region including Delhi and its neighboring regions, it unpacks perceptions about the use of such systems and concludes perceived risk as the main determinant in the adoption of mobile payment services.

The final paper in the SI is by Venkatraman and Ponnarulu who zoom in further into the use of digital payments and cash on the ground. Rather than focusing solely on the type of payments media adopted by users, this paper demonstrates that users strategically switch between multiple payments media based on the context in which the transaction is taking place. Drawing on ethnographic data from the southern state of Tamilnadu, it also demonstrates that different classes attribute different values (monetary, economic but also status and social capital) to different modes of payments. So, the question is not simply whether people use non-cash forms of money. Rather it is, “when” do people use non-cash forms of money? (And when do they use cash?)

Concluding thoughts

This SI allowed us to identify the need to examine both the design and use end of policy priorities such as the ones associated with the conversation around cashlessness in India. The papers the SI brought together with this analytical framing allowed us to identify a number of themes, including the significance of privacy and risk in people’s decisions to adopt digital payments and the shifting patterns of payments media used over time and in different situations. They also allowed us to recognise the heterogeneity in how people come to specific understandings of value in the context of financial transactions. While data security and privacy were important for users of non-cash payments media, they also emerged as key concerns that need to be addressed in policy design. Finally, the SI highlighted the importance of looking at these policy formulations (such as demonetization for instance) as part of a longer historical trajectory of the sectors of finance and development.

The four papers illustrate the range of analytical lenses, methods and questions that can be productively brought to bear on the questions of cashlessness and digital payments even within a single country. Preparing the SI in the midst of the global COVID-19 outbreak gave us a first hand opportunity to observe and reflect on the fast-changing terrain of digital payments. The themes brought up here suggest the need for academic scrutiny, including the identification of the primary and secondary designers of the drive for cashlessness in India: Who has a bigger say? Who gets merely consulted? Who is a recipient with limited voice? We hope that this discussion would further result in the study of the wide variety of stakeholders who are part of the digital economic landscape. For instance, the development of regulatory frameworks that bear on cashlessness in India require more academic attention. We intend this special issue to be the beginning of a rigorous and sustained conversation on the shaping of cashlessness in India.

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