

# Chapter 13

## Making Digital Money “Work” for Low–Income Users: Critical Reflections for HCI

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### ABSTRACT

*This paper adds to the research on digitization and money in HCI. By presenting a case of rickshaw drivers in India and their use of Ola, an app-based taxi service like Uber, and Ola Money, an embedded m-wallet, this paper makes a threefold contribution. First, it shows how cash and digital money are not simply different manifestations of the ‘same’ money for users. They provide distinct affordances and have different meanings and values, yielding rich insights for design. Second, it seeks to highlight the hidden work done by users around making digital money ‘work’ for them. In doing so, it calls for a broader understanding of ‘moneywork’ that goes beyond a temporal analysis, through the concept of ‘mobility work’. Finally, it highlights the role of ‘friction’ in design. Friction is crucial to users’ negotiation of the trade-off between consumption and saving, and can be leveraged to provoke reflection and user-awareness.*

### 1. INTRODUCTION

*“Do not save what is left after spending, but spend what is left after saving.” - Warren Buffet*

This quote highlights one of the central economic decisions that people have to constantly negotiate at individual and household levels, namely: whether to engage in consumption or postpone it for the future. Investment or savings is fundamentally about securing one’s future consumption by sacrificing a little in the present. Because one is giving up something in the present, this decision involves an opportunity cost which is typically compensated in the form of interest or dividend. This interest rate is determined by regulated institutions such as banks in accordance with the inflation and price levels in the economy. For the affluent and salaried classes, this act of juggling between meeting everyday needs and planning for the future (emergencies, vacations, special occasions, retirement planning and so on) is made easy

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by a steady, stable flow of income along with access to formal financial institutions and their full suite of services such as deposits, insurance, loans and pension plans. The fact that they know how much they have been earning (and spending) so far and how much they will in the future allows people in the higher socio-economic strata to estimate their cashflows and direct them towards varied ends.

This world is quite different from the one inhabited by low-income communities across contexts who experience small, irregular, and uncertain incomes. They are further aggravated by the lack of access to reliable, safe, convenient financial products and services to manage their finances. Low-income people carry out large number of transactions but they are small by value. This makes it economically unviable for banks and mainstream financial institutions to cater to low-income groups. Because brick-and-mortar branches are not set up in remote locations as well as areas with a majority of population living below-poverty-line (BPL), large sections of the population in developing regions of the world remain financially excluded. India has the second largest financially excluded population at 19 percent of the total population, after China (Singh & Reddy, 2018). This has made the financial inclusion agenda an integral part of the development apparatus, perhaps best illustrated by the Prime Minister’s National Mission on Financial Inclusion. Under this flagship scheme, a record 307.8 million bank accounts had been opened as of December 2017 (ibid).

The Indian government is banking on the ‘JAM Trinity’ to achieve full financial inclusion in the country. ‘J’ in the acronym refers to the ‘Jan Dhan’ bank account opened under the above scheme for all unbanked BPL households in the country. ‘A’ refers to ‘Aadhaar’, which is a unique, national ID created for all residents. The creation of such an ID has enabled identification of beneficiaries which is a prerequisite for delivery of social security benefits. Upon such identification, the government uses the bank account created to electronically transfer the said benefits as direct cash transfers. This not only enables targeted delivery of grants but also reduces pilferage and corruption (Jaitley, 2017). A recent report claims that digitizing pension payments reduced leakage by 47 percent due to usage of biometric smart cards in contrast to handing out physical cash (Bhargava, 2018). ‘M’ refers to ‘mobile’ phone ownership. India has more than 1 billion mobile phone users, although smartphone owners account for less than half that number (eMarketer, 2018). In order to leverage the massive ownership of mobile phones, the government launched a ‘Unified Payment Interface’ (UPI) to enable people to access their bank accounts on their mobile devices in an easy, convenient manner, thereby potentially addressing the ‘last mile connectivity problem’ (Economic Survey, 2016)<sup>1</sup>. Whilst the numbers do look impressive and have been necessary first steps, certain ground realities point to the fact that the goals have not yet been reached and there is a long way to go. The Global Findex database figures indicate that roughly half of India’s population having bank accounts has not conducted any transactions (deposits or withdrawals) whatsoever in the past year (Bhargava, 2018). Only 5 percent of the population used their mobile devices to access their bank accounts (Sahoo & Arora, 2017), and more than 92 percent of all card transactions were cash withdrawals from ATMs (Saurabh, 2017). These numbers highlight the fact that there is a need to think beyond metrics such as access and ownership in discussing role of technology in financial inclusion.

The Indian government banking on mobile phones is, in many ways, illustrative of the larger trend amongst policy makers, aid agencies and philanthropic foundations to advocate the harnessing of technology for development purposes. In the domain of money and finance, such advocacy has pushed for dematerialization of money i.e. a shift from cash to cashless monetary transactions as playing a key role (Musaraj & Small, 2018). A recent study reported that approximately 300 new mobile money services, that is services that allow users to access fund transfer and payment facilities on their mobile phones,

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