

## The Changing Social Medium of Money: Towards Inclusive and Sustainable Design in Financial Applications

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### Background

Money exists in social exchange as “[a] social fact, not a material fact” (In Mauss, 1914) that is modified by the way people use it. As the world entered the digital age, digital technology has affected personal finance and money itself.

The history of digital payment methods might be **longer** than some people realise. It all started in Kenya, Africa, with a service called **M-Pasa** before smartphones (Maurer, 2015). It was an alternative way of banking, merely requiring a SIM card for those who cannot afford traditional bank accounts, which was considered a revolution of a **more inclusive** way of banking.

Things started changing soon after the waves of start-ups in digital payment methods reached **Silicon Valley**. Only a few of them survived, but along with those experiments, a view that personal payment choices should be **reflecting identities** was formed (Birch, 2014). As a result, digital money applications and platforms are pursuing to be a part of the “**smart lifestyle**”.

In 2014, the first-ever solely digital bank (also known as a virtual bank)—Starling Bank—was founded in the UK, claiming to be “**changing banking for good**”. Since then, there has been an explosion of virtual banks, namely N26, Mozo, Revolut. They indeed changed and continue to shape the way of banking and even money itself, which has inspired this research.

### Aims of this research

This research aims to (a) understand the **digital transformation of banking** and its social, ethical and cultural implications; (b) address the digital divide in banking and other financial services, and **those who are excluded** by the digital transformation.

### Research question

**How can we design inclusive and sustainable digital money applications and platforms\* for future networks?**

#### Sub-questions

- I. How can we improve social inclusion regarding age, gender, class, disability, and culture in the design process, instead of assuming everyone will adapt currently used applications and platforms, e.g., mobile banking for older people?
- II. How can we design socially sustainable money applications and platforms using digital technology adjusting to future networks?

*\*Digital money applications and platforms refers to applications and platforms that provide services involving money, namely personal banking and savings, exchanges and transfers, and bill management. Due to the limitations of this research, trading digital currencies will not be included in this doctoral thesis.*

### Theoretical framework

This research will have **two parts** of theoretical framework from the classical and contemporary **economic sociology** theory of money and banking (e.g., Mauss, Simmel, Durkheim, Maurer, Dodd, and Birch), and from **science and technology studies (STS)** regarding the sociology of technology, the social shaping technology, actor network theory, digital divide literature,

platform capitalism, and some feminist approaches of technology and care theory.

This research will draw on literature to discuss payment as an **intersection of money and banking** historically and in the digital age, as well as recent and future developments in both non-digital and digital payment methods. Money is a **medium of social exchange** and an **intrinsically social institution** (Simmel, 1907). By understanding how people choose to pay, this research will address and untangle the biases, inequalities and exclusions in the current design and usage of mobile applications and platforms, as well as searching for a way to design **more inclusive and sustainable** financial applications for future networks.

Technology and FinTech will be the second part of this literature review. Theories from a range of contemporary scholars in various disciplines, from STS (Latour, Wajcman, and Zuboff) and material culture and design theory (Miller), to care theory (de la Bellacasa), gender solidarity and inequality (Haraway), will be systematically reviewed for their contributions to FinTech applications and platforms.

### Methodology\*

—a blend of qualitative research methods

- I. **App walkthrough** will be used to study the current design of digital money applications and platforms. Two case studies are proposed to be analysed using app walkthrough as following:
  - i. Revolut—a virtual bank serving digital natives.
  - ii. Bank of Ireland 365—transitioning digital non-natives to online banking.
- II. **Auto ethnography**: as the person doing this study on FinTech applications and platforms, I am also a user, which grants me the ability to document my experience using current and future digital money applications and platforms.
- III. **Ethnography**:
  - i. Participant observation
  - ii. Interviews
    - i. Experts: the designers, scholars in sociology and computer science, and industrial experts.
    - ii. The non-users of current digital money applications and platforms.

*\*Due to the early stage of this research project, the methods and case studies proposed might be modified and replaced later depending on research developments.*

### Potential industrial contributions

The findings of this research could be used to provide an additional perspective to design trusted and inclusive FinTech in order to help people adapt to the increasing use of technology and wireless networks.

### Contacts

*\*The full reference list could not fit into this poster. For information on references used, key theorists and concepts, please contact the author.*

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