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Editorial: Designing new financial transactions

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Citation for published version:

Elsden, C, Gloerich, I & Nissen, B 2022, Editorial: Designing new financial transactions: Theories, case studies, methods, practice and futures. in D Lockton, S Lenzi, P Hekkert, A Oak, J Sabada & P Lloyd (eds), *DRS2022: Bilbao, 25 June - 3 July, Bilbao, Spain*. Proceedings of DRS, Design Research Society. <https://doi.org/10.21606/drs.2022.1070>

Digital Object Identifier (DOI):

[10.21606/drs.2022.1070](https://doi.org/10.21606/drs.2022.1070)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Publisher's PDF, also known as Version of record

Published In:

DRS2022

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Jun 25th, 9:00 AM

Designing New Financial Transactions: Theories, Case Studies, Methods, Practice and Futures

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Citation

Elsden, C., Gloerich, I., and Nissen, B. (2022) Designing New Financial Transactions: Theories, Case Studies, Methods, Practice and Futures, in Lockton, D., Lenzi, S., Hekkert, P., Oak, A., Sádaba, J., Lloyd, P. (eds.), *DRS2022: Bilbao*, 25 June - 3 July, Bilbao, Spain. <https://doi.org/10.21606/drs.2022.1070>

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Editorial: Designing new financial transactions: Theories, case studies, methods, practice, and futures

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doi.org/10.21606/drs.2022.1070

Abstract: Talking about money can be difficult; designing with it, harder still. Though design is increasingly ‘value-centred’, this theme-track proposes the need for critical attention to how we actually represent, transact and exchange what we value. In this editorial, we offer some background to the topic, describe potential areas of development for design researchers and practitioners, and introduce the papers presented through this theme at DRS 2022.

Keywords: money; fintech; design methods; transactional data

1. Introduction

Talking about money can be difficult; designing with it, harder still. Though design is increasingly ‘value-centred’ (Friedman, Hendry, and Borning 2017) this theme-track proposes the need for critical attention to how we actually represent, transact and exchange what we value.

Recent technological innovations have produced a multitude of new ways to pay, and be paid. Virtual goods and platform currencies, such as WeChat Pay, Alipay, Twitch Bits or TikTok Coins facilitate novel ‘creative transactions’ between users and content creators (Elsden et al., 2021). These ‘special monies’ (Zelizer, 1989) position acts of payment as new forms of social media (Swartz, 2020). Cryptocurrencies continue to grow, alongside ‘decentralised finance’ (or ‘DeFi’) and non-fungible tokens (NFTs), seeking alternative means to transact



within digital economies. Finally, traditional financial and banking services are becoming increasingly mobile, inter-operable and programmable (e.g. Venmo, Monzo, N26 Klarna, Robinhood), producing rich transactional data about their users (O'Dwyer, 2019).

Hence, it is clear that the design of money is undergoing rapid innovations, while new economies emerge in tandem with changing social, cultural, and political dynamics. This theme-track aims to highlight how designers can shape these new economies and social worlds through the design of new financial transactions and services.

Indeed, through this track we hope to demonstrate that it is time for design researchers and practitioners to step up, and adopt a more proactive and critical stance with regard to money as a material to be designed with. Designers have often been engaged in determining the representation of money, or employed to simplify or speed-up financial transactions themselves, but more profound questions such as – Who can (and can't) use this money? What qualities should this money have? How might it flow? What rules should it follow? – are often left off the table.

And while there has been considerable critical and empirical work that demonstrates how different monies and payments can be made socially meaningful (Bandelj, Wherry & Zelizer, 2017), there are fewer examples or directions about how different monies could be more intentionally designed.

2. A call for designing new financial transactions

On this basis, our call for papers for this track reflected areas where we believe design research could and should develop further, to make a unique contribution to what are fundamentally interdisciplinary questions.

Perhaps the most evident starting point for designers to jump in, is the ongoing development of 'FinTech' – **financial technologies that in various ways support the management and exchange of (usually) traditional, fiat currencies**. There has already been considerable research in fields such as Human-Computer Interaction (HCI) and Cultural Economy studying the emergence of FinTech in different contexts. In tandem, there has been a growing awareness of the increasing demand and usage of 'transactional' data. Notably, this can be used to very directly program or attach certain qualities and data to financial transactions (Elsden et al., 2019). Nonetheless, perhaps what is lacking are examples of translating and applying this academic work through design research and practice.

More ambitiously, given the growing plurality of payment media, and the relative ease with which the digital financial infrastructure can be replicated and spun up (often beyond the grasp of state regulations) there is much more to comprehend about **how new forms of currency tokens and value exchange can be designed**. Nissen and Speed's *After Money* project¹ is highly illustrative in how a critical exploration of the *representation of value* can reshape

¹ <https://aftermoney.design/>

the values that can be represented. The most immediate examples of designing currencies tends to be towards local or community currency schemes (e.g. Ferreira et al., 2015; Nissen et al, 2018), including timebanking and mutual aid networks (see Aldridge et al., 2002; Shih et al., 2015), which are envisaged to better manage and support local resources and needs. We might consider, to what extent can any new monetary technologies extend the (thus far limited) impact of such schemes? But more fundamentally, how can we better articulate and design around particular qualities and features of money – such as its fungibility, locality, speed, convenience, or the extent to which it is differentiated or earmarked as distinct from other kinds of token of exchange? And could we apply this understanding towards designing money that is more socially meaningful and valuable for those who use it?

Beyond these more local contexts, we see that **online communities and platforms are increasingly the basis of new economies**, materialized, governed and sustained through particular means of payment and exchange. These online spaces are by necessity often more more decentralized, crowd and commons oriented. They are rich in experimentation about what money could do, and be for, often emerging in what Kjellberg et al. (2013) describes as ‘hot markets’ – where valuation practices are volatile and unresolved. It is critical that we understand how innovative monetary technologies shape, and are shaped by valuation practices, and by extension, community values, in online spaces. Designers could learn much from, and be at the forefront of, such experimentation.

Finally, and more broadly, beyond any of these particular domains, we see the need **for a more coherent development of design theory, methods, patterns and frameworks that support the design of financial transactions, and monetary technologies**, building on the rich theoretical and empirical work already undertaken in anthropology, media and cultural studies (e.g. Maurer et al., 2017; O’Dwyer, 2019; Swartz, 2020). Kow et al. (2017) offer a rare example of a framework for designing ‘special digital monies’, describing ‘transactional attributes’ that shape the experience of a transaction. Notably, this framework draws heavily on prior sociological and anthropological theories of money, in particular Zelizer’s work. There is surely much more work to do in this vein, which help to materialize and discuss particular concepts and functions of money with diverse audiences. Likewise, we might consider how design futuring (Kozubaev et al., 2020) – an approach to using design to articulate, discuss and develop ‘preferable’ future worlds – could be applied to all manner of financial, monetary and economic challenges. Most ambitiously, we could look towards approaches such as pattern languages (Alexander, 1977) – applied to software engineering, and interaction design – to develop a more coherent, structured and replicable form of design knowledge that supports the design of transactions and monetary technologies towards certain values, uses, or experiences. Dieter & Tkacz (2020) offer an initial example of this approach, through a study of how challenger banking apps are employ particular interaction design patterns to communicate their security and trustworthiness.

3. Theme track papers at DRS2022

The papers presented in this theme track ably demonstrate the potential for design researchers and practitioners to engage on the terms above. *Hanh et al.* tackle a familiar topic of financial tracking and management, yet offer a detailed focus on the UI design of financial apps, and the categories of information valued by young Korean adults. *Lim* and *Gandini* offer a broader survey and value mapping of the wide range of FinTech apps now available to consumers, and contribute a canvas as a tool to help designers take a more holistic approach to the design of technologies for financial wellbeing.

In some contrast, *Peña et al.* (2022) take a more critical and exposing look at the dissonances produced through digitising finance through FinTech apps. With rich examples from diverse user groups, their work starkly illustrates how digital forms of money and finance often fall short of their envisioned promises or benefits. Their work shines a bright light on the areas where considered user research, allied with careful design practice, could better ensure monetary technologies work for those who need them most.

Pothong et al. consider how new monetary technologies – in particular distributed ledger technologies (DLTs) – could ameliorate the financial challenges faced by small scale farmers in Jamaica. Working through participatory and speculative design methods to prototype a form of ‘bridge currency’, their work shows how design research can be applied to work through the promises and pitfalls of new currencies. Finally, in some of our own research, *Elsden & Speed* examine the rapidly evolving use of ‘creative transactions’ (Elsden et al., 2021) on live-streaming site Twitch, where the content is free to view, but the audience pay to participate and engage in the community surrounding a stream. This work directly applies Kow et al.’s (2017) framework of ‘transactional attributes’, to really pick apart how the design of various different transactions, contributes to the broader construction of a social community.

Though but a glimpse of the potential work on this theme, these papers show the potential diversity of the contributions that can be made, and the need for more venues in which to consider the various role that design researchers and practitioners can play.

Acknowledgements: We are grateful to all the authors for their submissions to this theme track, the reviewers who gave their time to support the refinement of the work, and the DRS organization team for creating the space for this track.

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