

Designing Social and Collaborative Fintech: Insights from a Housing Cooperative

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1 Introduction

My research investigates and envisions the role of financial technologies and tools to support the financial practices of cooperative communities. Cooperative communities form an interesting and useful case study to study financial technologies as they have democratic, participatory, and communal practices, which can help researchers and practitioners design tech for social and collaborative practices. Through an ethnographic study at a student housing cooperative, my work identifies the limitations of existing fintech approaches and potential strategies to address those.

A cooperative is an “autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise” [6]. With the pressing housing affordability and homelessness crises in major cities in North America, housing cooperatives have for decades formed an effective alternative for providing quality and affordable abodes to members. In line with growing calls for housing reforms and housing justice, housing cooperatives facilitate social, economic, health, and racial equity and well-being for sustainable, inclusive communities. My field site differs from professional non-profit organizations because of a lack of financial support from external grantors, funding agencies, or stakeholders.

2 Methods

I conducted a 16-month long ethnographic study at a student cooperative housing organization located in Toronto, Canada, alias names NXI. I conducted a total of 24 semi-structured interviews (4 of the interviews were a follow-up to the main interviews) and participant observations. The interviews ranged in length from 30 min to 105 min (62 minutes on average). I had a total of 20 participants: staff members, board members, and the general membership [10].

As an active member of NXI for over 16 months, I approached the study through engaged and reflective participation and not as a distanced observer. I worked to infrastructure community trust through active volunteering prior to commencing the research study to deeply understand the community practices and preferences. I have been elected thrice by the general membership for the role of treasurer, which also echoes community members’ faith and trust. The role of treasurer has helped me to deeply understand the daily organizational financial practices.

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3 Results

A general member at NXI describes how their house members participate and democratically vote on spending their budget:

We have a list on the fridge– that’s a whiteboard– that people write down during the month. Then at the house meeting, we’ll go through that list and write it down into a Google form, and then take a moment to see if anyone has anything else to add to the list? And then, we’ll go through the items and discuss why we’re buying them...Then the voting happens... then Google Form shows the percentages of votes.

The anecdote reflects how ‘whiteboard’ and ‘Google Form’ are used in tandem to track, manage, and vote on communal house groceries and supplies during the monthly meetings. This also demonstrates ways in which financial tools can facilitate cooperation and economic participation among individuals, both synchronous (e.g., voting during the house meet) and asynchronous (e.g., use of a whiteboard list).

On the contrary, despite NXI being a member-owned and controlled organization and being primarily funded by members’ money, membership faced a lack of transparency in accessing financial information and records. I find that members did not have easy access to their personal account balances, i.e., transactions comprising of fines, security deposits, pending dues, etc. These account balances were stored in a centralised software (called RM) and were managed and communicated to the members by the staff. A staff member described:

it would be so lovely if the members could just look up their account balances... I explained to them why their account balance was \$28... And then, I spend a lot of time explaining each detail.

The anecdote reflects that communicating and explaining balances causes additional work for staff members. Further, it provides insight into how RM is not designed for shared access to finances with the membership, but it is designed only for use by authorized individuals, i.e., staff members. There is a disconnect between who owns the pool of money and capital, i.e., members, and who handles the financial data, i.e., staff members. A board member explained the importance for “justifying all finances to the membership because it’s their (the members) money!”

Centralized data management is beneficial for correspondence with external stakeholders and the safety of records. However, I find that the centralized financial data practice is not representative of community values of cooperation, openness, and “member economic participation”. In a similar vein, another board member complained about the communication within the organization being largely centralized. He shares that “people don’t have the ability to initiate emails to all the houses unless they go through the staff”. Centralized email management and financial record-keeping, therefore, misalign with the principles and values of the organization.

Thereby, to address the data centralization tensions within NXI, I see potential ways forward in the increasingly growing scholarship within and beyond HCI in decentralized forms of data governance [9, 12, 13], on data cooperatives [1, 3, 5], and ‘Distributed Ledger Technologies’ (DLTs) [7]. Similarly, our work emphasizes the prior calls in HCI [2, 8, 11] for the pressing need for designing financial services and tools that support collaborative and cooperative financial practices. At the same time, recent HCI scholarship [4] notes that despite DLTs being often presented as enabling technologies for self-governing communities with incentives for collaboration and cooperation, these may be fraught with tensions and conflicts that can undermine collective and democratic governance procedures. Our work encourages future research to explore the nascent research areas of distributed and decentralized data governance [10].

4 Significance

My empirical case study aligns with the workshop's theme to showcase a user group– of grassroots cooperative communities– and their financial scenarios that can be better supported by more social fintech capabilities. In line with the workshop's focus on social and collaborative interactions through digital money and fintech, my work identifies the limitations of existing financial tools to store, manage, and communicate financial data in the cooperative organization. I find a misalignment of configuration of the fintech tools (such as an accounting software, excel sheets) with the community values of cooperation, openness, and 'members economic participation'; thereby highlighting how commercial for-profit capitalist financial technologies may not align with the local community practices and values in various ways. Further, I argue for designing digital financial tools with distributed access to financial records among members to support cooperative values and practices. My work also demonstrates ways in which financial tools can both facilitate or limit cooperation and economic participation among individuals.

Lastly, my former research reviewing fintech systems for financial inclusion will also help me to contribute valuable insights to the workshop towards the theme of– How can we design fintech that is mindful of marginalized or stigmatized populations?

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