

Future of Money and HCI

Johnna Blair
jlb883@psu.edu
Penn State University
University Park, PA, USA

Jofish Kaye
acm@jofish.com
Wells Fargo
California, USA

Jeff Brozena
brozena@psu.edu
Penn State University
University Park, PA, USA

Mark Matthews
mark.matthews@ucd.ie
University College Dublin
Dublin, Ireland

John Vines
john.vines@ed.ac.uk
University of Edinburgh
Edinburgh, UK

Saeed Abdullah
saeed@psu.edu
Penn State University
University Park, PA, USA

ABSTRACT

Money and financial activities reflect social connections and societal norms. Collaborative financial activities and decision-making are highly common in our day-to-day activities. However, existing financial technologies (fintech) are often limited to individual-centric approaches and goals. Recent HCI work has repeatedly noted the need for creating new interaction strategies and design paradigms to better support our financial behaviors, habits, and goals. However, there has not been much concrete work yet, specifically when it comes to supporting collaborative behaviors and social norms that underpin much of our daily financial activities. In this in-person workshop, we will bring together an interdisciplinary group of researchers interested in reshaping the current landscape of digital money and fintech with a focus on social and collaborative interactions. Specifically, we will identify limitations of existing fintech approaches and potential strategies to address these limitations. We will also discuss key challenges for fintech design and development, including collaboration, privacy, agency, trust, and accessibility. The workshop will lead to identifying novel HCI research and implementation directions focusing on the future of financial technologies.

CCS CONCEPTS

• **Human-centered computing** → **Collaborative and social computing**; **Empirical studies in HCI**; • **Applied computing** → **Electronic commerce**.

KEYWORDS

Financial technologies, financial wellbeing, social support

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1 MOTIVATION

Money and financial activities reflect social connections and societal norms. Our day-to-day financial activities often include collaboration and shared decision-making within our social networks — family members might collaboratively decide about priorities for household budgeting; domestic partners share bank account information for money tracking and planning [27]; friends can engage in longitudinal financial planning and goals; and care partners may need to make financial decisions for others while balancing the needs for autonomy and wellbeing [31]. The concept of money and financial decisions can also be culturally defined [9, 13, 44, 45]. At the same time, financial behaviors can have social consequences and impact our relationships with others [10, 24]. In other words, money is “inherently social” [28, 46].

However, current financial technologies (fintech) are often limited to individual-centric approaches — focusing on the needs of individuals only, without considering the social nature of money and financial activities. As a result, existing fintech can’t adequately address many of our financial needs and goals, specifically when it comes to supporting collaborative interactions that underpin most of our financial activities [1, 22, 28]. The goals and interactions supported by fintech can be misaligned to their users’ actual needs and habits. Given the recent emergence of fintech, these issues can impact a significant global population. More importantly, the limitations of existing fintech can be particularly challenging for marginalized communities. For example, prior work has demonstrated the need for collaborative financial decision making and support for individuals living with mental health issues [1, 4, 6, 7]. Similarly, care partners for individuals living with dementia often need to engage in financial management and decision-making [31].

The HCI community has repeatedly noted the need for creating new interaction strategies and design paradigms to better support our financial behaviors, habits, and goals [22, 23, 28, 40]. However, there has not been much concrete work yet. In recent years, there has been consistent progress toward open and accessible financial data. Financial regulators and institutes globally have been adopting open banking policies to empower consumers [15, 30]. Many countries are exploring issuance of central bank digital currencies (CBDCs) [41]. There are existing platforms and tools that enable access to previously siloed financial data [29]. We argue that the increasingly available financial data and digital money provides a unique opportunity for HCI researchers and practitioners to rethink the future of financial interactions.

2 OBJECTIVES

This workshop will bring together an interdisciplinary group of researchers interested in digital money and fintech with a focus on social and collaborative interactions. Specifically, we will identify limitations of existing fintech approaches and potential strategies to address these limitations. We will also discuss key challenges for fintech design and development, including collaboration, privacy, agency, trust, and accessibility. The workshop will lead to identifying novel HCI research and implementation directions focusing on the future of financial technologies.

3 WORKSHOP THEMES

Taking a more collaborative approach and enabling social financial interactions can help address a wider range of financial goals and user needs. This creates new opportunities to support users, such as facilitating financial decision-making, promoting greater financial literacy, or supporting long term financial wellbeing. For instance, prior work has explored the relationship between financial stability and wellbeing [34]. These findings suggest needs to better understand financial behaviors and opportunities to design interventions to support individuals.

Moreover, increased access to financial data presents unique design opportunities. For example, future fintech design can focus on supporting individuals through collaborative interactions [2, 4]. Prior work has demonstrated an openness in using and sharing financial data with others to support health and wellbeing needs [8]. Work related to aging populations and dementia have highlighted opportunities to support users through collaborative support and shared financial decision-making [31]. By expanding our scope of financial technology applications and exploring more collaborative design perspectives, we can better meet the needs of diverse groups and marginalized communities.

However, there are considerable design challenges when it comes to supporting collaborative and social financial interactions. Financial data can be highly sensitive, raising considerable privacy concerns. As such, fintech interaction design will require addressing privacy and trust issues among social actors.

Prior research has documented the needs and challenges faced when new fintech is introduced into low income, low resource, or developing economies [11, 19, 20, 32]. In many instances, these systems may be incompatible with existing social norms or expectations around money and financial transactions, misaligned with their financial needs and goals, or otherwise leave individuals without access. Other work has documented the struggles of adopting new financial technologies [17, 38]. In other cases, introducing inadequate fintech can have negative unintended consequences [18]. However, some work has begun to demonstrate how to design and introduce more culturally relevant fintech [12, 16, 35, 36]. This area of research suggests that further understanding is needed to develop more accessible fintech that can adapt to a wider range of financial environments.

Furthermore, future fintech design also needs to prevent potential harm and misuse. Prior work has identified how technologies might be used for financial abuse [3]. There is also increased risk for older adults, especially in the context of dementia as financial capacity diminishes [33, 37, 47, 48]. It is important for future fintech

design to balance the challenges of managing user agency, preserving privacy, and protecting users against misuse, while enabling beneficial collaboration and shared decision-making.

The workshop will focus on both identifying challenges and opportunities to address these challenges as mentioned above. Specifically, we call for position papers and short empirical, theoretical or methodological papers inspired by (but not limited to) the challenges and opportunities related to the following topics:

- How can we leverage novel data sources or methodologies to enable social interaction or promote financial collaboration?
- What user groups or financial scenarios can be better supported by more social fintech capabilities?
- How can we design and deploy collaborative financial interventions?
- How can we leverage existing social support systems for shared decision-making and long term financial stability?
- How can we make fintech more inclusive and accessible to increase support opportunities?
- How can we increase personalization to accommodate a wider range of financial goals?
- How can we provide collaborative support options within fintech systems?
- How can we design fintech that is mindful of marginalized or stigmatized populations?
- How can design privacy-preserving collaborative fintech systems?
- How can we maintain user agency in financially collaborative systems?
- How can we better protect users from financial abuse and exploitation risks?

We also welcome reflections, argumentation, and case studies related to designing fintech, or broader ethical issues related to this theme.

4 ORGANIZERS

The workshop organizers include both academic and industry professionals at the intersection of HCI and financial technologies.

Johnna Blair is a postdoctoral researcher in the College of Information Sciences and Technology at Penn State University. Her body of research has explored fintech and financial decision-making within the context of special user groups, including individuals with bipolar disorder and dementia. Her work focuses on the needs and ethical challenges of collaborating with care partners and clinicians and designing collaborative interventions to support long-term financial wellbeing [4–7, 31]. This interdisciplinary research has resulted in publications and presentations spanning technology (CHI 23' and 24', JMIR, AAAI) and healthcare domains (ISBD and ABCT).

Jeff Brozena is a Ph.D. candidate in the College of Information Sciences and Technology at Penn State University. He is currently working on understanding how technologies can aid in the long-term management of bipolar disorder. His work has explored the use of granular and objective financial data to understand the relationship between mental health issues and financial decision-making [4]. He has also worked on financial data sharing and collaboration preferences for individuals with bipolar disorder [7].

John Vines is the chair of Design Informatics in the School of Informatics at the University of Edinburgh. He also co-directs the Institute for Design Informatics. His research focuses on how people experience and use digital and data-driven technologies in their everyday lives. He has specific expertise on the design of financial systems, including digital money [14] and “alternative” currencies [39]. He has also conducted research on financial inclusion for marginalized communities, including older populations [42] and low-income groups [43].

Jofish Kaye Principal Research Scientist at Wells Fargo in Strategic Design and Innovation. His research explores the social and cultural effects of technology on people as well as how people’s decisions, needs, and behaviors can change and improve those technologies. He has served on the ACM Diversity & Inclusion Council, the SIGCHI Executive Board, and co-chaired CHI ’16. He has published papers on personal finance tracking [22] and collaborative financial interactions [26]. He also co-organized a previous CHI workshop focusing on digital money and financial activities [21].

Mark Matthews is an Assistant Professor in the School of Computer Science at University College Dublin. He investigates the interplay between wellbeing and technology, including how technology might be used to improve the lives of people with serious mental illness and how the design of technology impacts on critical factors related to mental health such as sleep-wake cycles and circadian rhythms. This work brings together cutting edge behavior sensing, interaction design and machine learning to address serious challenges in mental health [4, 7, 25].

Saeed Abdullah is an associate professor of Information Sciences and Technology at Penn State University. He leads the Wellbeing & Health Innovation (WHI) lab. His recent projects focus on developing fintech to support marginalized communities, including individuals with bipolar disorder and dementia[4, 6, 7, 31]. He is also developing human-centered AI systems for training mental health workers, improving dementia care, supporting palliative care, and generating personalized health interventions.

5 SUBMISSION AND PARTICIPATION DETAILS

Those interested in participating in this workshop should prepare a submission that meets the following requirements:

- Short paper, up to 4 pages, including references
- Speaks to your research related to HCI and money – e.g., position, empirical, theoretical, or methodological papers
- Follows the ACM one-column master article template
- Submitted as a non-anonymized PDF via EasyChair

Workshop paper submissions will be reviewed and selected for participation based on quality of the work and suitability for the workshop topics, with the goal of bringing together a diverse pool of perspectives on money and HCI.

Prior to the workshop, accepted authors will be expected to:

- Provide a final version of their submitted paper to be published on the workshop website prior to the workshop
- Register to attend the workshop, in-person
- Prepare a short oral presentation of their accepted paper to be given during the workshop

Activities planned for participants during the workshop and opportunities post-workshop are detailed in the sections to follow.

6 ACCESSIBILITY

We aim to create an inclusive experience for all participants. We will require that all submissions follow the ACM Guide for Accessible Submission including, providing alternative text for all images and conducting an accessibility check on the final submission to ensure screen reader compatibility. Additionally, participants research presentations during the workshop should also follow similar guidelines to increase accessibility. Should any tentative participant have additional accessibility needs, we will coordinate with the CHI accessibility chair to make further accommodations.

7 ASYNCHRONOUS ENGAGEMENT

To advertise our workshop, we will leverage our existing communication channels and social networks: social media accounts, lab websites, and the workshop website. Prior to the workshop, we will make all accepted papers accessible on our workshop website to provide additional opportunities to engage with each other’s work and build research connections.

8 WORKSHOP ACTIVITIES

Time	Activity
09:00–09:30	Introduction
09:30 – 11:00	Keynote speaker
11:00 – 11:15	Break
11:15 – 12:30	Participant research presentations
12:30 – 14:00	Networking lunch
14:00 – 14:45	Breakout session #1
14:45 – 15:30	Breakout session #2
15:30 – 15:45	Break
15:45 – 16:30	Breakout session #3
16:30 – 17:00	Closing discussion

Table 1: Tentative workshop schedule

We plan for a one-day in-person workshop that will feature research presentations, group activity sessions, and discussions on future directions. Through these activities, we intend to share insights, design perspectives, and new opportunities for HCI research and practice. Table 1 provides the overall schedule of the workshop as described below:

- **Workshop Introduction:** We will start with brief introductions from organizers and participants. We will then highlight the goals of the workshop and go over plans for the day.
- **Keynote Speaker:** A keynote speaker will be invited to talk about their own research on the topic of fintech and digital money. We will conduct a brief QA session with the speaker to discuss different aspects of fintech design and associated challenges.
- **Participant Research Presentations:** Each workshop participant will have 3-5 minutes to present their accepted paper.

- **Networking Lunch:** We will encourage participants to share ideas and explore common interests over the lunch break.
- **Breakout session #1 – Challenges and limitations of current fintech:** Participants will be divided into 4-5 small groups for small group discussions. Each group will identify challenges and limitations of current fintech. Participants will be encouraged to move from group to group to share their comments and ideas. Representatives of the small groups will share their insights with the larger group to prompt further discussion.
- **Breakout session #2 – Design opportunities using digital money and open banking data:** Participants in 4–5 small groups will identify design opportunities to use digital money and open banking data. We will encourage participants to address challenges identified during the first breakout session. Following this activity, a representative of each group will present their design strategies for group discussion.
Participants in small groups will be given scenarios for designing a financial support system or intervention. These scenarios may include alternative financial goals, different financial stability needs, or important life stages where users may struggle with financial wellbeing. The specific scenarios presented to participants for exploration will be influenced by the topics of accepted papers to ensure suitability.
- **Breakout session #3 – Designing collaborative and supportive fintech:** Participants in 4–5 small groups will design fintech interactions focusing on collaboration and support. We will provide example scenarios for idea generation. These scenarios may include alternative financial goals, different financial stability needs, or important life stages where users may struggle with financial wellbeing. During the session, participants will also be asked to discuss potential ethical considerations for their proposed interactions including, privacy vs. disclosure, agency vs. control, and support vs. exploitation, as well as strategies to address those challenges.
- **Closing Discussion:** The organizers will conclude the workshop by summarizing the main point from previous workshop sessions. We will encourage participants to identify additional challenges or risks to users present in current fintech design that are important to address in future work. Participants and organizers will develop a priority list of topics of study and ideal outcomes for future HCI research and practice.

These specific activities are subject to change or may be adjusted based on the topics and themes of the participants' accepted papers or the number of individuals interested in attending the workshop.

9 POST-WORKSHOP AND PUBLICATION PLANS

All accepted papers from participants will be published on our workshop's website to enable a broader dissemination. After the workshop, we plan to publish the material generated during the workshop (discussion themes, videos, sketches, methods, and frameworks) on our website to serve as a resource for future work within

this domain. Participants will also be invited to collaborate on future projects that emerge from the activities and discussions sparked during this workshop. We also aim to publish an article for the broader HCI audience (e.g., ACM Interactions). We will invite participants to join as co-authors for the article.

The expected outcomes of this workshop include:

- Fostering a community and forge new research connections between those working in the fintech domain.
- Established future directions and strategies for designing and developing ethical systems for long term financial wellbeing.
- A summary of the workshop findings and additional resources posted to our workshop website, as well as recirculated through our existing platforms.
- A selection of papers to be published in workshop proceedings.
- An article submission in a relevant venue (e.g., ACM Interactions).

10 CALL FOR PARTICIPATION

How can we design novel financial technologies (fintech) to better support social relationships and norms? Collaborative financial activities and decision-making are highly common in our daily activities. However, existing fintech has mostly considered finance as an individual phenomenon. This CHI 2025 workshop on the "Future of Money and HCI" will bring together an interdisciplinary group of researchers interested in reshaping the current landscape of digital money and fintech with a focus on social and collaborative interactions. Specifically, we will identify limitations of existing fintech approaches and potential strategies to address these limitations. We will also discuss key challenges for fintech design and development, including collaboration, privacy, agency, trust, and accessibility. The workshop will lead to identifying novel HCI research and implementation directions focusing on the future of financial technologies.

Authors are encouraged to submit position papers relevant to the workshop theme. Relevant topics include (but are not limited to) the design of fintech interactions, unique use cases for social financial interactions, ethical considerations in fintech design, and designing supportive collaboration for marginalized communities.

Submissions should use the ACM Master Article Submission Templates (single column; up to 4 pages excluding references). Papers should be submitted via EasyChair. We will select submissions based on quality and suitability for the workshop topic. Submissions are semi-archival. Accepted papers will be featured on the workshop website. At least one author must attend the workshop, in-person. Further information is available on our workshop website (<https://hci.money/>).

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