Fostering Immigrants' Trust in Online Local Social Exchange

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ABSTRACT

Immigrants use technologies for socialization in new countries, but HCI scholars have not explored this research space. In my dissertation, I am adopting the social exchange theory to explore this research space. My first study suggested that trust is the key to addressing immigrants' concerns about social exchange through technologies. Following this finding, my ongoing work will be focused on designing interventions to address these trust-related concerns. My dissertation should shed light on inclusive design supporting immigrants' socialization, and inform research on other newcomers (e.g., domestic migrants and refugees) and specific forms of resource exchange (e.g., ridesharing and language exchange).

My Past Studies

My doctoral research is focused on understanding how technologies support people in developing new networks and accessing resources through their communities. In this broad research space, I am mostly interested in how special populations make connections and trade resources across online-offline boundaries.

The first project in my doctoral course of study focused on people-nearby applications (PNAs), a type of social application that allows users to match with other users nearby [3]. I found that PNAs are used by newcomers, such as travelers, domestic migrants, and immigrants, as an online channel to socialize in a new city or country. Through PNAs, newcomers can get in touch with local populations easily. Newcomers not only develop social connections but also access local resources such as free ridesharing or couch-surfing through these local connections. This study, accompanied by my life experience as an international student, initiated my research interests in immigrants.

Another one of my past studies [5] investigated the factors influencing senior adults', lower-income populations', and lower-educated populations' participation in the digital sharing economy. These populations' trust in other individuals was not a significant predictor of their participation. Instead, their trust in institutions, namely their trust in a social structure, was significantly correlated to their participation in the sharing economy. This study revealed similar findings to Study 1, which suggests that users' trust varies in different aspects, such as trust in a platform and trust in other users on a platform. This finding informed my choice to use the theoretical model of trust [10] in Study 2 and Study 3.

Sidebar 1

INTRODUCTION

Newcomers who enter a new community experience challenges such as social isolation, identity transition, and insufficient information to meet basic needs. Socialization, "*the process by which a new member learns the value system, the norms, and the required behavior patterns of the society, organization, or group which he is entering*" [14, p.54], provides a way for newcomers to smoothly adapt to a community. By interacting with existing community members, newcomers not only learn a community's social norms but also develop a commitment to a community [9]. Supporting newcomer socialization thus benefits newcomers as well as the community.

HCI researchers have widely studied the ways newcomers to online communities socialize [7]. However, limited HCI research involves newcomers to physical locations and *socialization with offline communities through online technologies*. Immigrants, a subgroup of newcomers to physical locations, face challenges that all newcomers face, and additionally face cultural and language differences, which further increase difficulties in socialization [2]. Past immigration research suggests that technologies such as social network sites impact immigrants' networking and resource seeking [1], but limited HCI research has explored this research space. Technologies' role in immigrant socialization, what challenges immigrants have when using technologies for socialization, and how HCI design can address these challenges remain unclear. My dissertation work thus aims to understand how immigrants in the United States (U.S.) use technologies for socialization within communities in their new areas, which include both their ethnic communities and communities with mixed ethnic populations.

To frame my dissertation, I am using the social exchange theory, a theoretical framework widely used to frame newcomer socialization. Social exchange is when individuals trade socio-emotional and economic resources while building social relationships [11]. Participating in *local social exchange*, i.e. social exchange in a person's local area, is a common way for immigrants to access resources and build networks (e.g., [8, 13]). Following these lines, I am investigating immigrants' participation in *online local social exchange*, i.e. local social exchange mediated through online channels. My dissertation's overarching research question is: "*How do recent immigrants in the U.S. participate in online local social exchange, and how can we better design technologies to address their challenges and concerns about online local social exchange, if any*?"

My prior study (Study 1) tackled the overarching research question by discovering how immigrants participate in online local social exchange. The results showed that immigrants' biggest concerns are about uncertainties and risks of online local social exchange among ethnically mixed communities. Trust, which is an essential component of social exchange, can mitigate these uncertainties and risks of exchange [12]. In my ongoing work (Study 2 and Study 3), I thus argue that by exploring the design space to mitigate newcomers' perceived uncertainty and risks of online local social exchange, we can foster immigrants' trust in a platform and in local communities, and their intention of participating

in local social exchange, which would ultimately contribute to smoother immigrant socialization. To provide a full picture of my doctoral research to date, my past studies are described in Sidebar 1.

STUDY OVERVIEW

I plan to include three studies addressing my overarching research question in my dissertation. Study 1 explored immigrants' participation in online local social exchange and discovered their challenges to participation; Study 2 will examine the effects of factors associated with these challenges; Study 3 will propose and test design interventions to address the factors found significant in Study 2.

Study 1 (Prior Study): Understand Immigrants' Participation in Online Local Social Exchange. Study 1 answered the research question:"*How do immigrants participate in online local social exchange?*" This study was based on semi-structured interviews (N = 18) with recent immigrants, who had lived in the U.S. for less than five years, and long-term immigrants, who lived in the U.S. for five years or longer [4]. The results show that participants were uncomfortable about participating in online local social exchange, specifically within ethnically diverse communities, such as Facebook groups for an ethnically mixed neighborhood. Participants' major concerns were about uncertainties and risks of exchanges, such as bad quality of exchanged resources and safety issues. I identified three factors related to their uncertainties and risks: (1) whether a platform had established regulation, such as platform policies and identity verification; (2) whether a platform was supported by known organizations; and (3) whether a community had frequent offline interactions and events. Trust, which is an essential component of social exchange, mitigates uncertainties and risks of exchange [12]. I drew connections between the three factors (noted as trust-related factors for the rest of the paper) and a theoretical model of trust from [10], and used the adopted trust model to guide Study 2's experimental design.

Study 2 (Proposed Study): Examine Trust-related Factors Associated with Immigrants' Participation in Online Local Social Exchange. Study 2 will be an online experimental survey that seeks to answer the research question: "*How do the trust-related factors affect immigrants' trust and intention to participate in online local social exchange on an exchange platform?*" The survey will be designed based on the trust model adopted from [10]. Participants will be navigated to browse a prototype of a local social exchange platform. The prototype will contain design interventions that address the three trust-related factors (whether a platform has established regulation, whether a platform has organization supports, and whether a community has frequent offline interactions). Each participant will be assigned to a random combination of these interventions and asked to respond to the trust scales adopted from [10]. I expect the results to inform my understanding of the three factors' effects on immigrants' trust, and guide Study 3's intervention design.

Study 3 (Proposed Study): Design Interventions to Foster Immigrants' Trust in Online Local Social Exchange. Study 3 will be a face-to-face lab experiment to answer the research question:

Goals for Participation in the DC

The DC will be an excellent venue for me to get feedback from mentors and exchange ideas with other doctoral students. By the time of the DC, I plan to have passed the proposal defense and have preliminary findings for Study 2. The goal of my participation is thus to get feedback for Study 3's experimental design. This will also be a good time for me to revisit the scope of my dissertation work. I also plan to begin preparing my job packet. The DC will provide opportunities for valuable advice from mentors as I plan my career path.

Sidebar 3

"*What are the design implications to address significant trust-related factors affecting immigrants' trust in online local social exchange?*" I will revise the prototype by designing new interventions that address the trust-related factors found significant in Study 2. For instance, assuming Study 2's findings suggest that established regulation is a significant trust-related factor, I will break down regulation into more fine-grained aspects such as platform rules' transparency and identity verification [6], and implement interventions to address each of these aspects. Similar to Study 2, each participant will be assigned to a random combination of these interventions and assessed according to their trust in online local social exchange on this platform. I will also conduct interviews to gather qualitative data to provide deeper insights about participants' thoughts about the interventions.

REFERENCES

[1] Rianne Dekker and Godfried Engbersen. 2014. How Social Media Transform Migrant Networks and Facilitate Migration. *Global Networks* 14, 4 (2014), 401–418.

[2] John Goldlust and Anthony H. Richmond. 1974. A Multivariate Model of Immigrant Adaptation. *The International Migration Review* 8, 2 (1974), 193–225.

[3] Joey Chiao-Yin Hsiao and Tawanna R. Dillahunt. 2017. People-Nearby Applications: How Newcomers Move Their Relationships Offline and Develop Social and Cultural Capital. In *Proc. of CSCW'17*. ACM, New York, NY, USA, 26 – 40.

[4] Joey Chiao-Yin Hsiao and Tawanna R. Dillahunt. 2018. Technology to Support Immigrant Access to Social Capital and Adaptation to a New Country. *Proc. ACM Hum.-Comput. Interact.* 2, CSCW, Article 70 (Nov. 2018).

[5] Joey Chiao-Yin Hsiao, Carol Moser, Sarita Schoenebeck, and Tawanna R. Dillahunt. 2018. The Role of Demographics, Trust, Computer Self-efficacy, and Ease of Use in the Sharing Economy. In *Proc of ACM COMPASS'18*. ACM, Article 37.

[6] Sara Kiesler, E. Kraut, Robert, Paul Resnick, and Aniket Kittur. 2011. Regulating Behavior in Online Communities. In *Building Successful Online Communities: Evidence-Based Social Design*. MIT Press, Chapter 4, 125–177.

[7] Robert E. Kraut, Moira Burke, John Riedl, and Paul Resnick. 2011. The Challenges of Dealing with Newcomers. In *Building Successful Online Communities: Evidence-Based Social Design*. MIT Press, Chapter 5, 179–230.

[8] Kristin Lovejoy and Susan Handy. 2011. Social Networks as a Source of Private-vehicle Transportation: The Practice of Getting Rides and Borrowing Vehicles among Mexican Immigrants in California. *Transportation Research Part A: Policy and Practice* 45, 4 (May 2011), 248–257.

[9] Debra A. Major, Steve W.J. Kozlowski, Georgia T. Chao, and Philip D. Gardner. 1995. A Longitudinal Investigation of Newcomer Expectations, Early Socialization Outcomes, and the Moderating Effects of Role Development Factors. *Journal of Applied Psychology* 80, 3 (1995), 418–431.

[10] D. Harrison McKnight and Norman L. Chervany. 2001. What Trust Means in E-Commerce Customer Relationships: An Interdisciplinary Conceptual Typology. *International Journal of Electronic Commerce* 6, 2 (Dec 2001), 35–59.

[11] Linda D. Molm. 2006. The Social Exchange Framework. In *Contemporary Social Psychological Theories*, Peter James Burke (Ed.). Stanford University Press, Chapter 2.

[12] Paul A. Pavlou, Huigang Liang, and Yajiong Xue. 2007. Understanding and Mitigating Uncertainty in Online Exchange Relationships: A Principal-Agent Perspective. *MIS Quarterly* 31, 1 (2007), 105.

[13] Alejandro Portes and Julia Sensenbrenner. 1993. Embeddedness and Immigration: Notes on the Social Determinants of Economic Action. *Amer. J. Sociology* 98, 6 (1993), 1320–1350.

[14] Edgar H Schein. 1988. Organizational Socialization And The Profession Of Management. *Sloan Management Review* 30, 1 (1988), 53–65.