

How Recent Migrants Develop Trust Through Community Commerce: The Emergence of Sociotechnical Adaptation

JOEY CHIAO-YIN HSIAO*, School of Information, University of Michigan, USA

SYLVIA DARLING, School of Information, University of Michigan, USA

TAWANNA R. DILLAHUNT, School of Information, University of Michigan, USA

Trust is key to community commerce or peer-to-peer e-commerce where transactions happen within local communities. Trust is especially vital among migrants who move to new countries and need time to develop trust after arrival. To understand migrants' trust development in community commerce and its potential and challenges for supporting their transition to the United States, we conducted 24 semi-structured interviews with migrants who had lived there for three years or less. We highlight practices embedded in difficulties engaging with technologies in a new place. We identify four forms of migrants' trust and show how their offline experiences with local communities reflect their online trust development in community commerce and vice versa, thereby creating unique challenges in their adaptation to new technologies. We coin the term *sociotechnical adaptation* to frame migrants' distinctive adjustments to social media technologies in a new country. We conclude with implications for creating community commerce platforms that foster migrants' trust and a reflection on how sociotechnical adaptation may vary among diverse migrant populations.

CCS Concepts: • **Human-centered computing** → **Empirical studies in collaborative and social computing**; • **Information systems** → *Collaborative and social computing systems and tools*; • **Social and professional topics** → *Race and ethnicity*.

Additional Key Words and Phrases: Migrants, Newcomers, Sociotechnical Adaptation, Migrant Adaptation, Trust, Community Commerce, Semi-structured Interviews

ACM Reference Format:

Joey Chiao-Yin Hsiao, Sylvia Darling, and Tawanna R. Dillahunt. 2023. How Recent Migrants Develop Trust Through Community Commerce: The Emergence of Sociotechnical Adaptation. *Proc. ACM Hum.-Comput. Interact.* 7, CSCW1, Article 135 (April 2023), 24 pages. <https://doi.org/10.1145/3579611>

1 INTRODUCTION

Every year, more than one million migrants¹ arrive in the United States (U.S.), joining over 40 million people born in another country and now living in the nation [12]. Many of them experience cultural differences, social isolation, and racial discrimination, all factors that make their adaptation difficult in an increasingly hostile political atmosphere [8, 37]. Hate incidents against migrants have

*Hsiao currently works as a UX researcher at Oath Holdings (aka Yahoo). He led this research project during his Ph.D. study at the University of Michigan.

¹We use *migrants* to refer to people who move to a new place under varying social and political circumstances, including foreign workers, international students, naturalized citizens, refugees, and more [7, 30, 76, 77].

Authors' addresses: Joey Chiao-Yin Hsiao, jcyhsiao@umich.edu, School of Information, University of Michigan, Ann Arbor, MI, USA; Sylvia Darling, ssimioni@umich.edu, School of Information, University of Michigan, Ann Arbor, MI, USA; Tawanna R. Dillahunt, tdillahu@umich.edu, School of Information, University of Michigan, Ann Arbor, MI, USA.

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2573-0142/2023/4-ART135 \$15.00

<https://doi.org/10.1145/3579611>

only intensified in the era of COVID-19, such as in March 2021 when six Asian American women were murdered in front of Asian-owned businesses in the greater Atlanta area and in August 2019 when 23 Latinos were killed at a large retail store in El Paso, Texas [39]. In fact, official nonpartisan reports show that hate crimes against Asian Americans in the U.S. rose by 339% in 2021 compared to 2020, while hate crimes against Latinos rose by 41% [35, 57].

Despite these challenges, social media technologies play a significant role in migrants' adaptation [20, 31, 50]. Through online interactions, migrants can exchange cultural knowledge about their destination countries and information about legal documentation processes. Such technologies can likewise aid in the trade of local services and products with people within and outside their ethnic communities, which could yield consequences unique to their identity [43].

Nevertheless, to date, HCI and CSCW literature has analyzed little about how recent migrants develop trust through social media technologies [66]. Although prior studies have identified safety concerns and perceived uncertainties common among migrants' social media use [19, 40, 43], it is unclear how their trust develops in this context in the first place. Paraphrasing a landmark definition by Mayer et al., trust involves one's "*willingness to be vulnerable*" to the actions of another, based on the expectation that the other will take actions important to the trustor, regardless of their ability to monitor that other [58, p. 172]. Among recent migrants, trust takes time [24] and is critical to mitigating risks pertinent to their new surroundings, yet how its development factors into their practices in using online platforms to access local resources remains unexplored.

To extend this line of research, our work explores recent migrants' involvement in community commerce and their trust in different community commerce actors. One emphasis of community commerce is community building in local peer-to-peer (P2P) online commerce, of which trust is a fundamental element [60]. To investigate how community commerce platforms affect recent migrants' trust development, we analyzed six social commerce affordances from past e-commerce literature [26, 27] to standardize guidelines for improving trust in community commerce. We seek to answer the following research questions:

- RQ1: How do these affordances affect how migrants build trust in community commerce?
- RQ2: What challenges do migrants have when participating in community commerce?

We held 24 semi-structured interviews with *recent migrants*, whom we characterize as having lived in the U.S. for three years or less. Findings suggest community commerce exposes them to local resources and social norms, including how locals perform P2P interactions. We also found participants developed trust in four types of trustees through community commerce: an individual, an online community, an offline community, and a platform provider. More critically, how recent migrants develop in local communities occurs in a bidirectional fashion: their experiences with trust offline impact their trust in online community commerce, which accordingly improves their trust in local areas. Our work makes at least five key contributions:

- We conceptualize *sociotechnical adaptation* as a theoretical framework that explains the unique experiences that recent migrants have upon navigating new spaces and technologies;
- We contribute to CSCW studies an emerging understanding of how platform affordances like metavoicing and social connecting can strengthen migrants' trust in individuals, online and offline communities, and platform providers in community commerce;
- We build on prior HCI and CSCW literature by explaining how community commerce brings benefits like meeting local people and learning social norms, as well as challenges deriving from a lack of strong ties and the delicate process of trust development;
- We provide design implications that support migrants' trust development in community commerce, namely highlighting multiple shared identities, minimizing perceptions of alienation, and strengthening their digital footprint through cross-platform intermediaries;

- Finally, we reflect on how to advance the intersection of CSCW and migration studies by analyzing whether our recommendations generalize across the spectrum of experiences migrants may face among diverse migrant populations [30].

2 LITERATURE REVIEW

We begin with a primer on migrants' social media use to signal new research paths for analyzing their participation in community commerce. We then review past literature on migrants' trust development and highlight that their trust evolves according to their host society's political atmosphere. This flexibility motivates us to investigate how migrants may develop trust in community commerce platforms. We conclude with a review of past *social* and *community commerce* studies, which cover P2P e-commerce occurring on social media platforms. Given that community commerce is a relatively new framing within the domain of social commerce, we rely on the latter to provide a robust theoretical framework about platform affordances for analysis.

2.1 Migrants' Social Media Use for Social Connections

The advent of the Internet gave migrants opportunities to build connections with people in host countries in previously unseen ways, thus changing the adaptation process [20, 50]. Social media allows migrants to cultivate relationships with ethnic and native communities, often before arriving at their destination [10]. Given newfound abilities to network, HCI scholarship has looked at how migrants leverage online support to make new social ties and sustain connections back home [20, 28, 43, 61, 62, 65, 66]. For example, Almohamed et al. have conducted multiple design studies to mitigate refugees' networking challenges in Australia [1–4]. They found that social media enhances connections with nonprofit organizations and their ability to serve as intermediaries who facilitate engagement with local communities [2]. Brown and Grinter deployed a phone-based platform to promote communication between Caribbean refugees and African American mentors in the U.S., showing that human translators were essential for building refugees' trust in mentors [11].

However, HCI studies have also pointed to migrants' concerns about perceived safety and the uncertainties of connecting with strangers in digital contexts [1, 19, 40]. In a study on the role of mobile phones with Syrian refugees living in Sweden, Coles-Kemp et al. found that users were worried that such devices could expose them to attacks offline [19]. Despite the benefits of staying connected, participants underscored a lack of digital security knowledge that otherwise could help them use mobile phones safely. Relatedly, Guberek et al. analyzed undocumented migrants' social media use and revealed that users kept a low profile to reduce exposure to loose social ties which may subject them to online harassment and state surveillance [40]. Such findings suggest that recent migrants are left on their own to figure out how to mitigate digital risks, which could affect how they connect with people outside their immediate social circles.

Trust is key to resolving recent migrants' concerns and fomenting a sense of security [36]. Yet, despite compelling research on migrants' computing-related fears, there has not been much attention to how trust as an essential component develops among this population. On the flip side, migration studies have a rich body of literature that explores trust, which we refer to in the subsection below to contextualize recent migrants' trust development in community commerce.

2.2 Trust Development Among Migrants

For recent migrants to acquire the social support necessary for their adaptation, they must first build connections in their host country [70]. However, meeting strangers brings uncertainties and risks, particularly in a new environment. Language barriers and limited knowledge about legal processes are just some of the challenges migrants face when seeking social support [72].

Affordance	Definition	Technology Capacities
Visibility	The potential to make product attributes visible	Unique profile of items, including its attributes
Metavoicing	The potential to enable users to provide feedback on product content	Post or comments tools, e.g., "like" and "share" buttons
Triggered Attending	The potential to notify content changes about products	Automated alerts that inform users of changes regarding objects of their interest
Guidance Shopping	The potential to help users make purchase decision by offering personalized service	Personalized and collaborative support service
Social Connecting	The potential to establish or maintain social ties and involve users in the reciprocal commerce relationships	Tools that connect products or other users
Trading	The potential to enable users to make a purchase	Payment options, e.g., online banking or third-party payments

Table 1. Six affordances of social commerce platforms (Table adapted from [27]).

Migration researchers have argued that migrants recently arriving in host countries tend to have low levels of *generalized trust* [23, 24, 54], which refers to one's tendency to trust society [14, 58]. Dinesen and Hooghe conducting a survey to compare recent migrants' generalized trust to that of their second-generation descendants is a case in point. They found that recent migrants indeed tend to have lower generalized trust than their descendants, likely due to differences in values arising from experiences living in varying contexts [25]. Carvahlo also surveyed multiple ethnically-diverse communities across four European cities to measure differences in trust between migrants and native-born populations, finding that migrants have lower trust in neighbors than their native counterparts [14]. Such a case suggests there may be a positive correlation between recent migrants' low levels of generalized trust and low levels of *interpersonal* trust, the latter referring to a willingness to be vulnerable to ties in everyday settings [59, 64].

In contrast, both time and the conditions of migrants' surroundings in a new place can impact their trust development. To illustrate, Dinesen argues in a later study that the political atmosphere of a host country, rather than the migrants' cultural background, plays a fundamental role in how their trust evolves [23]. In countries in Northern Europe where levels of generalized trust are high, migrants also tend to increase their trust in others over time. The United States (U.S.) presents a different context, nonetheless. The country is known for having lower levels of generalized trust among U.S. citizens than in Northern Europe [9], suggesting that lower levels of trust may also be present among migrants. Undocumented migrants, for example, have lower trust in loose ties and are careful not to leak information on social media that strangers may appropriate for ulterior motives [40]. Incidentally, they have high levels of trust in service providers, unaware of how companies may share their data with government authorities issuing subpoenas to escalate deportations.

These studies highlight opportunities to explore how recent migrants in the U.S. develop trust through social media. Although technology has become ubiquitous in modern migration, details about trust development remain unexplored. Our work contributes to this knowledge by investigating how recent migrants' involvement in community commerce modifies trust with their host society and local communities.

2.3 Platform Affordances in Social and Community Commerce

Social commerce occurs when users exchange goods on social media platforms like Facebook, Twitter, and Instagram platforms [13, 38, 71]. Going further, Moser et al. coined the term *community commerce* to emphasize how users' collective identities can cultivate communal support [60]. A classic example is how mothers use Facebook to meet their material needs through buy-and-sell groups, showing how commonalities in being mothers and locals help build rapport. At the same time, these groups' closed and private nature enables members to make transactions safely. Extending Moser et al.'s work, Evans et al. studied P2P e-commerce groups in Venezuela, a low-trust environment compared to the U.S. [32]. They found that reviews, rules, activity histories, and tools

supporting equity were critical for these groups to develop in a low-trust environment. Community commerce offers a helpful framework for contextualizing how recent migrants leverage their identities as newcomers to adapt to their host society.

Affordances speak to the attributes of an object that are “*constituted in relationships between people and the materiality of the things with which they come in contact*” [73, p.146]. Simply put, they refer to the capacities and features that support user behaviors online. To understand recent migrants’ trust development in community commerce, we leverage six affordances Dong et al. [27] originally classified to evaluate strong and weak ties on social media: visibility, metavoicing, triggered attending, guidance shopping, social connection, and trading (see definitions in Table 1). In later work, Dong et al. found that the six affordances above, except for guidance shopping, improved users’ interactivity on social media [26]. We thus draw upon them to investigate how they might influence how recent migrants build rapport with ethnic and native users and learn about new local norms.

3 METHODS

Our study spanned from mid-January to late March 2021, coinciding with COVID-19 and public incidents in the U.S. targeting migrants. We employed virtual semi-structured interviews to answer our research questions, thus allowing us to gain data about participants’ experiences while adhering to guidelines for social distancing from the Centers for Disease Control.

3.1 Recruitment and Sampling

We used convenience sampling to recruit participants, posting advertisements on the classifieds site Craigslist in counties with over 500,000 foreign-born residents². We extended our reach by advertising on U.S.-based email lists and migrant Facebook groups. We used snowballing sampling by asking participants to invite personal ties, as this is a vetted technique for recruiting hard-to-reach populations [67, 69]. We granted referrers \$5 USD for each eligible referral, setting a limit to three referrals per participant to limit sampling bias.

Eligibility for the study included having lived in the U.S. for three years or less, being at least 18 years old upon moving and having experience using community commerce for P2P transactions. We diversified participants’ countries of origin by selecting no more than two participants from the same country to identify mutual themes across different ethnic backgrounds. Although past research has used five years as a screening criterion to describe recent migrants [15, 29, 48], recent studies show that people living in a new county for nearly five years may not always recall their early experiences [43]. Participants with three years of experience living in the U.S. are likely to recall richer accounts of their transition time.

3.2 Study Procedure

All of the interview sessions were conducted as video calls through Zoom and audio-recorded. Interviews were 60 minutes on average and were held in English. The first author initiated each interview by asking participants to briefly describe their migration experiences, including their motivations for migrating and what obstacles they may have had since. Participants were then asked about their community commerce experiences, particularly group membership numbers, backgrounds, and everyday activities. They also described their initial and most recent transactions

²Counties include: Los Angeles County, CA; Miami-Dade County, FL; Harris County, TX; Cook County, IL; Queens County, NY; Orange County, CA; Kings County, NY; San Diego County, CA; Santa Clara County, CA; Broward County, FL; Dallas County, TX; Maricopa County, AZ; Alameda County, CA; Riverside County, CA; and King County, WA. Data source: <https://www.migrationpolicy.org/programs/data-hub/charts/us-immigrant-population-state-and-county>

ID	Pseudonym	Gender	Race/ Ethnicity	Age Range	Country of Origin	Migration Status	Platform	Community
P1	Martin	M	Hispanic	26-30	Venezuela	Foreign worker	Facebook	Migrants in the city
P2	Lai	M	Asian, Pacific Islander	31-35	Taiwan	International student	Facebook	Town residents
							Facebook	University students
P3	Shriti	W	Asian	26-30	India	International student	Facebook	Indian students at the university
P4	Rong	W	Asian	26-30	China	International student	WeChat	Chinese students at the university
P5	Emma	W	White	36-40	Canada	Foreign worker	Facebook	Neighborhood residents
P6	Veronica	W	White	21-25	Mexico	International student	Facebook	City residents
P7	Chuk	M	Black	21-25	Nigeria	Family of a US citizen/ permenant resident	Nextdoor	Neighborhood residents
P8	Jerry	M	Black	26-30	Kenya	Green card lottery winner	Facebook	Town residents
P9	Pallavi	W	Asian	21-25	India	International student	WhatsApp	International students
P10	Mugisa	M	Black	31-35	Rwanda	Green card lottery winner	Nextdoor	Neighborhood residents
P11	Bill	M	Black	21-25	Canada	Family of an international student	WhatsApp	City residents
P12	Sofia	W	White	31-35	Portugal	Foreign worker	Facebook	Photographers
P13	Mateo	M	Hispanic	26-30	Argentina	International student	Facebook	City residents
P14	Anastasia	W	White	26-30	Belarus	International student	Facebook	Neighborhood residents
P15	Aasir	M	Black	26-30	Kenya	Family of a US citizen/ permenant resident	Facebook	City residents
P16	William	M	Black	26-30	South Africa	Foreign worker	WhatsApp	Company employees
P17	Nomin	W	Asian	26-30	Mongolia	International student	Facebook	Neighborhood residents
P18	Jenny	W	Black	26-30	South Africa	Foreign worker	WhatsApp	Company employees
P19	Drea	W	Other	21-25	Bahamas	Family of a US citizen/ permenant resident	Facebook	City residents
							Facebook	Mexican women in the city
P20	Elizabeth	W	Hispanic	31-35	Mexico	Green card lottery winner	Facebook	City residents
							Facebook	City residents
P21	Souma	M	Asian	21-25	Pakistan	Foreign worker	Nextdoor	Neighborhood residents
P22	Linda	W	Black	46-50	U.K.	Family of a US citizen/ permenant resident	Nextdoor	Neighborhood residents
P23	Daniel	M	Other	36-40	Trinidad and Tobago	Family of a foreign worker in the U.S.	Facebook	Migrants in the city
P24	Jacob	M	Black	21-25	New Zealand	Green card lottery winner	Facebook	Town residents

Table 2. Participant information. Gender: M=Man, W=Woman. Age range: participants' age in 2021. Migration status: participants' migration status in their first year in the U.S.

as the interviewer probed for details about their communication with other sellers and buyers, the information they exchanged during each transaction and their perceptions of the experience.

Next, the interviewer asked how community commerce factors into participants' adaptation to living in the U.S. We asked questions like, "How does your identity as a migrant affect how you interact with these groups?" and "How have your interactions changed over time?" to track their engagements with P2P platforms. Then, we probed into their trust in the community by asking, "Was there a time you trusted, or distrusted, others in this group?" We asked about their trust in platform providers, asking, "Was there a time you trusted, or distrusted, the website or the provider itself?" We sought details about generalized and interpersonal forms of trust as they pertained to community commerce. To protect their privacy, we did not ask participants to share other data formats, such as photos or screenshots.

Upon ending the interviews, we sent a post-study survey to obtain details of participants' demographic information. We compensated all participants with a \$30 USD e-gift card from retail stores like Amazon, Target, and Walmart. Five participants received an extra \$5 USD for making a referral. The study was classified as "exempt" by our university's institutional review board.

3.3 Data Overview

We interviewed 24 recent migrants—half identified as men and the other half as women (see Table 2 for demographic information). Most participants were in their late 20s and 30s, with a mean age of 28. Almost all arrived in 2019. During their first year of living in the U.S., eight ($n=8$) were international students, six ($n=6$) were foreign workers, four ($n=4$) were permanent residents, four

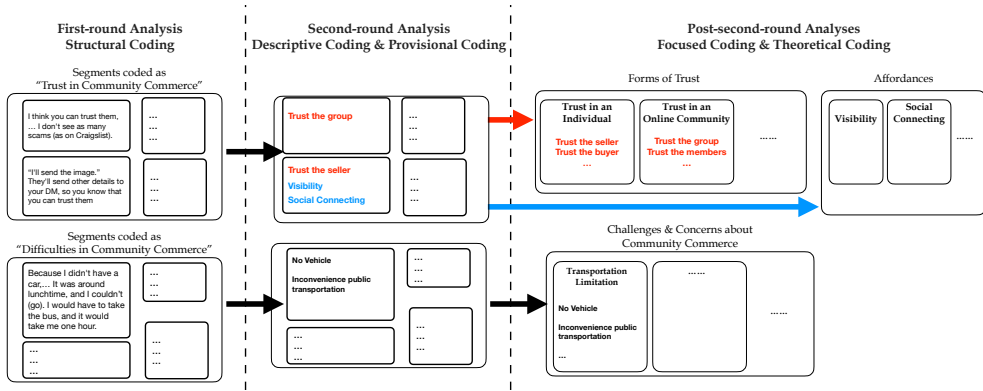


Fig. 1. Analysis process

($n=4$) were relatives of citizens or permanent residents, one ($n=1$) was the relative of a foreign worker, and one ($n=1$) was a relative of an international student.

Most participants identified as Black ($n=9$), followed by Asian ($n=6$), white ($n=4$), Hispanic ($n=3$), Pacific Islander ($n=1$), and other ethnicities ($n=1$). More than half had a Bachelor's degree, six ($n=6$) had a Master's degree, and two ($n=2$) had some college. Notably, three participants had lived in the U.S. for a few years when they were younger (Sofia [P12], Drea [P19], Linda [P22]). They moved back to their home countries and recently returned to the U.S.

Our study data consists of 24 interview recordings, with an average length of 49 minutes (max=68 minutes; min=35 minutes), and 24 post-study survey responses. All the recordings were professionally transcribed for analysis. We also communicated with participants through emails when we had follow-up interview questions.

3.4 Data Analysis

Fig 1 presents our analysis process, which incorporates deductive and inductive approaches. The first author and an assistant did multiple iterative rounds of qualitative coding using Atlas.ti to identify emerging themes about community commerce. In the first round, we adopted structural coding [68] to focus on conceptual phrases relating to our research questions, using codes like *trust in community commerce* and *difficulties participating in community commerce*.

In the second round, we used provisional coding to identify how the six platform affordances applied to community commerce experiences. We also used descriptive coding [68], which summarizes participants' statements, to identify different forms of recent migrants' trust in community commerce, such as *trust in the group*, *trust in the seller*, and *trust in the moderator*. We similarly used descriptive and focused coding to generate codes about participants' challenges in engaging with P2P platforms, including *no vehicle* and *lack of an digital footprint*. Finally, we implemented focused coding to explore additional concerns recent migrants had, such as *adapting to new technologies* and *perceptions as outsiders*. We monitored the appearance of related forms of trust and corresponding affordances to identify potential relations.

4 RESULTS

Our work uncovers how recent migrants develop trust in community commerce and the challenges or concerns they face. Overall, we find that community commerce supports participants in meeting their economic needs and learning their new environment's social norms. Affordances like metavoicing and social connecting offer essential design features that factor into how participants develop trust in individuals, groups, and platform providers. Nevertheless, some barriers relating to

participants' status as newcomers impact how they use community commerce to aid their arrival in the U.S. We present general experiences with community commerce to contextualize our findings on migrants' trust development, and then end with an overview of concerns and challenges.

4.1 Recent Migrants' Experiences with Community Commerce

Table 2 shows the community commerce platforms that participants highlighted in their interviews. Most participants were exposed to community commerce through groups on global social networking services like Facebook and more hyperlocal platforms like Nextdoor, instant messengers like WhatsApp, and social conglomerates like WeChat that incorporate the services above in addition to mobile payments. The majority browsed these platforms daily ($n=8$) or a few times per week ($n=9$). Remaining participants browsed these platforms once per week ($n=2$), a few times a month ($n=3$), or once per month or less ($n=2$).

More than half of the participants ($n=17$, 71%) felt that community commerce was helpful in their transition to living in the U.S. because it allowed them to get cheaper products for their homes, meet new people, and explore local culture and social norms. Below we describe in greater detail how their community commerce experiences factored into their transition. We speak to the salient themes that arose in our analysis: *addressing material needs*, *meeting local people and learning social norms*, and *exploring new places*.

4.1.1 Addressing Material Needs. As recent migrants in the U.S., participants stressed the need to save money during their transitions. Almost all sought household items through Facebook or localized online marketplaces like OfferUp and Craigslist. They found good deals, made quick transactions, arranged convenient deliveries or pick-ups, and saw these as advantages of community commerce. Several participants mentioned that such platforms usually allowed for more accessible communication with sellers and buyers and that prices tended to be lower than in retail stores. For example, Mugisa [P10], a green card lottery winner from Rwanda, shared how community commerce on NextDoor helped his move:

Nextdoor has really helped us, especially people who are not [from] the United States, because we have challenges getting things. But when I start searching for things [on NextDoor], I can buy and purchase them. You can also get services on Nextdoor... It really helps people like me who have difficulty coping with a new environment. Also, it is the cheaper way... you can buy cheap things [there] because items are very expensive.

Convenient Delivery/Pick-up. Participants were also motivated to use community commerce because it offered convenient deliveries and pick-ups. Deliveries are especially advantageous, as more than half of the participants did not own a car ($n=14$), while several asked sellers and buyers to deliver to their houses or a nearby location. This finding resonates with statistics that show that vehicle ownership is lower among migrants than native counterparts in the U.S. [16, 17]. Asking sellers to drop off items often spared participants from having to pick them up on their own.

However, the option to get items delivered also raised concerns about safety and disclosure. Without access to a car, some participants often had to disclose to buyers and sellers where they lived. Veronica [P6] expressed concerns over inviting someone to come to her house for a P2P transaction, and at one time, she even refrained from completing an exchange: *I don't want to invite somebody in my house, and then they change their mind. And I'm just like, 'Now they know me and have my address.'* Sofia [P12] also mentioned a transaction involving the delivery of a bulb set via Facebook that raised concerns:

Because I didn't have a car, he wanted me to be there at [a public space], I can't remember. It was around lunchtime, and I couldn't. And then I would have to take the bus, and it

would take me, like, one hour or something. It's very close, but still, it will take me, like, one hour. And I don't know if he was rushing or something. He offered to deliver. This made me a little scared because he would have my address.

There were other instances where community commerce platforms required buyers to pick up, thus presenting barriers for recent migrants without transportation access. For example, Emma [P5] stated that the Facebook group she joined had stringent rules requiring buyers to pick up traded items: *If you say you want something, you have to pick it up that same day.* In other cases, social norms rather than regulations dictated that buyers pick up products, as was the case with Linda [P22]. Sometimes, the circumstances were the opposite, and sellers would have to deliver, as described by William [P16]: *That's one of the rules of the group, you have to deliver. Once you are selling your product, you have to deliver.* Although recent migrants enjoyed the convenience of delivery, many still had to deal with transportation constraints and safety concerns.

Income Opportunities and Lower-Cost Gig Services. Sofia [P12], Linda [P22], and Daniel [P23] all used community commerce platforms to gain extra income or find gigs. Although income levels in the U.S. are among the highest in the world, expenses are just as high, leading multiple participants to worry about their financial status. For instance, Sofia moved from Portugal to the U.S. in 2020 because of her job. She stated, *Life in the U.S. is very, very expensive.* To help cover additional costs, she used a Facebook group for local photographers that allowed her to find clients for her photography gigs. Not only could she trade used equipment and find tips about the trade, but she could also connect with clients who might be interested in her services. Meanwhile, Linda and Daniel looked for entry-level gigs in babysitting and immigration services, respectively, with the latter seeking to provide visa preparation services to fellow migrants in the area through Facebook.

Participants also requested gigs through community commerce. For example, at her university, Rong [P4] requested a ridesharing gig from a WeChat buy-and-sell group for Chinese international students, at one time requesting a trip to the airport and receiving three responses. After communicating with the respondents, she chose the student who offered the lowest price. Rong felt that, in light of the pandemic, asking for shared rides via WeChat provided the safest and most cost-efficient way to find local gig services.

4.1.2 Meeting Local People and Learning Social Norms. Community commerce was an excellent way for recent migrants to connect with local people, thereby staving off risks of social isolation. Emma [P5], Veronica [P6], Chuk [P7], Anastasia [P14], William [P16], Nomin [P17], Elizabeth [P20], Souma [P21], and others shared positive experiences interacting with neighbors, described below.

Warm Welcome from Local Communities. Community commerce platforms often played a role in providing a warm welcome to participants. Some stated that the friendly attitudes of community commerce members and the favors they received helped foster a sense of belonging. Seeing community members support each other also increased their comfort with the group. Participants learned the social norms of interacting with local residences on P2P platforms in online contexts and practices in negotiating transactions offline. For instance, Nomin [P17], an international student from Mongolia, joined a local Facebook group before moving to her new neighborhood. Seeing interactions among group members made her feel that she would be welcome upon arriving.

With this group, even though I haven't even moved there yet, I'm getting way more hopeful about the number of good people sharing the same values and then just sharing their opinions, their items, and their services. So I think it's helping me feel more welcome in that neighborhood, and I feel like I'm a part of it and need to be involved with it more.

The group gave Nomin opportunities to observe what the neighborhood community looked like and how community members interacted before her actual move. Although she did not have

deep interactions with other members, she fostered a sense of belonging by observing others' friendliness online. Her sense of belonging, in turn, raised her trust in her new local community.

Reciprocal Interactions among Community Members. Some participants saw community commerce as a way to help others in the area. Although most had more experience buying and receiving items rather than selling or giving them away, some acknowledged that most sellers just wanted to get rid of their items as soon as possible. Therefore, participants like Emma and Anastasia felt that receiving items from local people was also a way of "helping" them.

Participants also learned how locals interacted with each other throughout their daily lives. Unlike general P2P platforms that focus only on buy-and-sell transactions, community commerce platforms are open to casual interactions and discussions. Many participants picked up local social norms by reading and joining these discussions. Souma is one example. A foreign worker from Pakistan, he did not experience much culture shock upon moving to the U.S. because he attended an American international school in Saudi Arabia. He felt confident about interacting with discussions on Nextdoor because he knew when to ignore aggressive comments.

Jacob [P24], a green card winner from New Zealand, also learned about social norms through his neighborhood Facebook group. He states:

I think in a way it kind of made me more familiar with how people in this country do online selling... It's a fast-paced thing. Normally, when I was doing it in the past, [back home], it was more of a slower process. It would take a couple of days just for someone to finalize what they're going to pay from what they're buying. But here, it's much more fast-paced. I guess in this country, people want things fast, and they want to get things done. They don't take their time when they're doing these kind of things.

4.1.3 Exploring New Places. Lastly, community commerce allowed participants to explore places they had no opportunity to visit. When asked to pick up items through community commerce, some used the occasion to visit local sites. This allowed them to increase their familiarity with the neighborhood, which echoes past work that argues that "wandering" is a crucial strategy for recent migrants to learn about their surroundings [55]. Emma [P5], a foreign worker from Canada, often explored new places when picking up items she purchased through Facebook:

Honestly, to me, I see it like a scavenger hunt, because it takes me to parts of my neighborhood that I didn't even know... [One] day, I went to get two things that I found on the group, the cocktail glasses and the coffee I was telling you about, the cans. And they were both pretty far from each other. So, I went to walk to one and get the cocktail glasses and walked to the other one to get the coffee cans. And I just discovered this whole section of my neighborhood that I didn't even know existed, that has really nice houses. Even if I wasn't getting any free stuff, it was a really nice walk. It was a discovery of a new area that I would have never gone to otherwise.

Similarly, Shriti [P3], an international student from India, had never been to the southern part of her town. Yet, when she bought a yoga mat from a Facebook group for Indian students in her university, she took the bus and visited new neighborhoods. Jenny [P18], a foreign worker from South Africa, made a friend through a WhatsApp group for fellow employees. She said, *[The friend] showed me around the neighborhood, places to eat, the parks, museums.* These examples suggest the several advantages of community commerce for exploring local areas.

4.2 Recent Migrants' Trust Development in Community Commerce

We sought to understand how six platform affordances from prior work [26, 27] fostered recent migrants' trust in community commerce. Our results suggest that they develop four forms of trust

Affordance	Trust in an Individual	Trust in an Online Community	Trust in an Offline Community	Trust in a Platform Provider
Visibility	X	X		
Metavoicing	X	X	X	
Triggered Attending		X		
Guidance Shopping		X		
Social Connecting	X	X	X	
Trading				X

Table 3. A visual summary of the six affordances effects' on recent migrants' trust in community commerce.

in community commerce—trust in individuals, online groups, offline communities, and platform providers. We present how these four forms of trust are related to platform affordances in Table 3. We found that metavoicing and social connecting fostered all forms of trust, except for trust in the platform provider. Below we describe how these affordances support trust in community commerce.

4.2.1 Trust in Individuals. Trust in individuals was supported by visibility, metavoicing, and social connecting. We explain each of these affordances in detail to show how they influence recent migrants' trust in particular individuals.

Metavoicing. Metavoicing allows users to provide feedback and share opinions collectively on traded items and services [26, 27]. Comments and replies, i.e., features that underpin metavoicing, fostered recent migrants' trust by conveying supportive attitudes among members. Participants stated that community members often commented on a post to share their experiences or information about the items to be traded or about a member. For example, Jerry [P8], a green card lottery winner from Kenya, used a Facebook group for community commerce. He described how members left comments, especially positive feedback, after a transaction. These positive comments fostered migrants' trust in the member who received the comments:

Whenever you get [the traded item] you say, 'I got it, it was fine, it's working well...' A person may come to the group, maybe selling another item for a second time... and whenever one of the group members had maybe bought something from that person the first time, he'll say 'I had actually acquired this item from this person on this day.' So, they're going to be supportive, they're going to give you some positive ideas.

Social ratings, which convey collective opinions about a user, also influence participants' trust in individuals. Among all the platforms that participants used, only Nextdoor allowed users to give ratings on other users. Linda [P22], who used NextDoor for community commerce, mentioned that she looked into a user's ratings to judge their trustworthiness.

Social Connecting. Social connecting enables users to connect with other community members and develop social relationships [26, 27]. Among all affordances, social connecting was the most common affordance for building trust in individuals. Note that when community commerce takes place on social media platforms like Facebook or NextDoor, users can view other members' personal profiles. When participants were about to make a transaction, they often checked the seller or buyer's profile and browsed through their posts and photos to judge whether they were trustworthy.

Features that afford social connecting, like access to profiles and private messengers, allow recent migrants to assess possible shared identities with community members. Shared identity is a critical element of community commerce [44, 60], one that allowed participants to build trust with users who shared common backgrounds. For example, Martin [P1], who was from Venezuela, shared his

experience in a Facebook buy-and-sell group for fellow migrants in his area. By talking to users from his home country and in a similar job field, he was able to raise trust in them.

Yeah, I met people that are in the same job field... also with people that share the same taste in things that I like and people from my home country. Having something in common makes me feel more comfortable talking with that person, it makes me feel that I can trust them a bit more. So it's kind of good to find something in common with the person that I know that he knows about that... So it feels like a little trust between us.

Martin's example shows how multiple shared identities could foster migrants' trust in other community commerce members. Sometimes, participants could foster trust with someone who shared just one identity. Lai [P2], from Taiwan, used two Facebook community commerce groups. One was for residents of his town, while the other was for students from his university. As a migrant, Lai had concerns that P2P transactions could be risky. Making transactions with individuals from the same university helped build Lai's trust in them.

I tend to trust people more who come from [Lai's university] group. Because I feel like we share similar backgrounds, which makes it less risky to really get contact with them and meet with them outside. They're students. They will not hurt me or something.

Some participants would contact users through private messengers after investigating their profiles. In most cases, buyers and sellers were friendly and willing to respond to questions about traded items or even themselves. Thus, social connecting allowed participants to assess a person's trustworthiness and, in effect, boost their trust in them. Mateo [P13], an international student from Argentina, described how he developed trust in a seller from a local Facebook group:

When I was going to their places, they did their best for me to take the furniture in the best state or help me move. Like, 'I'm selling you this so I want you to have it on the best place on the time that you can.' So the people that have been kind to me was very helpful because when some kind of people treat you like that you feel they're really nice. [She] told me that she has been selling a lot of stuff on the group, so knowing that, change a little bit your mind that this [is a] trustworthy person.

Visibility. Visibility refers to the appearance of detailed information, through pictures and text, of traded items or services [26, 27]. Participants developed trust in a buyer or seller when they saw that their post contained vivid details of their items, such as photos, specifications, and prices. Moreover, Lai [P2], Emma [P5], and Nomin [P17]) all emphasized that personal stories about an item also contributed to the user's trustworthiness. Emma [P5] describes how she believed that members who made posts about transactions were real and thus trustworthy:

I guess because the tone of their posts was very conversational, which made me feel they were real. Sometimes they explain why they don't need something... There's a little bit of this story behind why this person is giving these away. Or the woman with the cocktail glasses, like, 'I've decided that in 2021, I'm going to be sober and I'm not going to drink anymore, so I'm giving away all my cocktail glasses.' If there were a but, they wouldn't make up this whole story about giving away their cocktail glasses.

4.2.2 Trust in Online Groups. Participants' trust in an online community was enhanced by social connecting, metavoicing, visibility, and triggered attending. We start with social connecting since its effects were strongly associated with participants' identities as recent migrants.

Social Connecting. Similar to its function in 4.2.1, social connecting allowed participants to leverage shared identities to increase their trust in online groups. Jerry [P8], who was from Rwanda, explained how a high ratio of Black people affected his trust in a local P2P group on Facebook:

What made me have that courage to use that site... I found out that most of them, if not maybe three-quarters, were actually Black, and since I am also Black, I found it more comfortable using it, and I found it maybe more secure. And that made me trust them.

Information like users' recent activities also raised participants' trust in online groups. By browsing multiple profiles on Nextdoor, Souma [P21] believed that members were genuine:

I just think because there are pictures sometimes attached to the username... you know who you're dealing with, whereas with the other apps you don't. So for that reason, I think people are a bit more genuine through Nextdoor. And also just because of the fact that a lot of them care less about money, they just want to help people, give things away for free.

However, social connecting likewise brought adverse effects. Some participants mentioned they found themselves distant from some community commerce group members due to perceived racial and ethnic differences, especially those dominated by locals. Being new to the U.S. meant that participants often had limited common ground with new neighbors, which sometimes decreased their willingness to engage. Lai [P2], an international student from Taiwan, described his perception of two Facebook community commerce groups that he used:

Specifically for this group, most of the user of this group are townies and they are all mostly Americans. That's when I feel, 'Oh, well I'm not one of them.' That's how I feel, it's, 'I'm an outsider.' Taking the other group, [Lai's college] group, I would say, I'm one of them. And there are a lot of international students.

Racial and ethnic differences also impacted trust in offline communities, which we discuss in 4.2.3.

Metavoicing. Positive comments among community members contributed to migrants' trust development in online groups. As a whole, such comments led to perceptions of friendly attitudes within the community. Mugisa [P10] remarked on reading affirmative comments on NextDoor:

People there comment positively. You rarely find somebody commenting bad about an item, so there's this supportive feeling that members help each other... definitely you feel that this is the best platform. You feel like your problems are being solved, and these challenges of feeling away from home, you feel that you are still at your place, just like home. When you need something, you get it. When you need advice, you are given advice.

Note that although Mugisa used the word "platform," we interpret his statement as referring to the *community* on NextDoor, rather than an allusion to the application. Mugisa's experience suggests that metavoicing, which highlights members' supportiveness, fostered recent migrants' trust in online groups.

Visibility. Seeing accurate information across several transactions allowed some participants to build trust in online groups. For example, Jacob [P24] mentioned he always received accurate product details from a community commerce group he used, which resulted in higher trust in it.

Triggered Attending. Triggered attending is associated with features that notify users about new posts [26, 27]. Martin [P1], Shriti [P3], Emma [P5], Sofia [P12], Elizabeth [P20], Daniel [P23], and Jacob [P24] all mentioned that the platforms they used were active and led to receiving multiple notifications per day. As a result, triggered attending supported participants' awareness of group activities, which made them more willing to rely on these groups to find resources.

Guidance Shopping. Guidance shopping clues participants into item recommendations, shopping expectations, and the hidden rules of a platform—often gained through shoppers' past experiences [26, 27]. We found a few instances where local members shared information on alternative items

or sellers in the group. Since members were willing to provide this information, Mugisa [P10], Anastasia [P14], and Jacob [P24] all perceived that the community was helpful and more trustworthy.

4.2.3 Trust in Offline Communities. Participants' trust in online groups also extended to their trust in offline communities. Since community commerce groups were linked to their neighborhoods, towns, or social groups, they gave participants an impression of how locals might interact offline.

Metavoicing. In several cases, participants believed supportive and welcoming attitudes in online community commerce would be mirrored in the physical world. As Emma [P5] described a Facebook group for her neighborhood:

I totally trust them. Yeah. They seem really nice people. And it's frustrating, like you asked how the group helped me integrate into my community. It didn't really, because I haven't met any of these people. But it makes me feel good to know that the people in my neighborhood are so generous.

Emma's instance suggests that COVID-19, which was acute at the time of the study, hindered participants from meeting local people in person. Although community commerce provided opportunities to interact and foster trust with local people virtually, many still felt they did not have a chance to engage with communities offline.

Social Connecting. By looking at people's profiles from a group, participants gained a sense of what users must have been like offline. Frequently, they would browse profiles to see if they had any commonalities with users' identities. Just as Lai believed he was an outsider based on browsing profiles of a certain group on Facebook, Rong also had a similar experience when she realized she was the only Asian at a yard sale she found out about through community commerce:

I went there and [was the] only Asian. I went there alone. It looks so weird now when I think about it. And then everyone there, I can tell that they're local. They probably know each other. It's so easy for them to say hi and just run into a neighbor in a crowd. I feel very not belonging there, and I can feel the way, say, if I'm interested in this candle you're selling, and the way you're talking to me is different the way you're talking to an American customer, you will treat me like a foreigner or something. I'm not saying it's a different price. I'm saying it's different customer service. I just don't feel close. It's a very awkward experience for me. I don't want to go there ever again.

Rong's experience points to perceived differences in race and ethnicity that may hinder recent migrants from engaging in community commerce that certain racial groups dominate. Plus, in situations where participants perceive that members know each other closely, it may be difficult for migrants new to the area to feel comfortable in a short time.

4.2.4 Trust in Platform Providers. We found that only *trading* among the six affordances helped participants build trust in platform providers. Trading refers to mechanisms on an e-commerce platform, such as payment systems or shopping carts, that facilitate transactions [26, 27]. Most community commerce groups, however, were based on social networking sites that did not support online payments. Most participants relied on cash, online banking, or third-party cash applications for their community commerce transactions. Rong [P4] was the only participant with trading-related experiences. She used WeChat, which allowed users to make in-app online payments and monetary transactions. She stated she completed all transactions using WeChat successfully, thus suggesting she felt safe using the platform.

4.3 Challenges Participating in Community Commerce in a New Country

Many of the platforms that participants used in the U.S. were not popular or even available in their home countries. Therefore, most had to learn how to use them to facilitate their transition. Rong [P4], Chuk [P7], Pallavi [P9], Mugisa [P10], Souma [P21], and Linda [P22] all stated that they had to learn how to use Facebook and Nextdoor to participate in community commerce and even cash applications like Venmo to manage some transactions. These findings suggest that recent migrants frequently need to adapt to the social technologies that are dominant within their host country.

However, two issues arose when having to adapt to these platforms: first, having a small digital footprint and, two, lacking strong social ties. We want to emphasize that participants were indeed able to learn and build a reputation on these technologies. Rather, their barriers were rooted in the initial limitations of being newcomers in a different environment.

4.3.1 Small Digital Footprint. Just as participants checked other users' profiles to assess if they were trustworthy, community members themselves were evaluating participants to see if they were reliable. In past research, one's digital footprint refers to a combination of visible online interactions, like social media activity, and the subjective impressions other users may build based on that person's representation of their online self [34]. A limited digital footprint thus posed problems for recent migrants who did not have an established history of using platforms that were unavailable or unpopular in their home countries. In Rong's case, because Facebook was banned in China, she had never used it before coming to the U.S. When she created a profile to look for local resources, her limited number of posts prevented other members in the group from trusting her.

As you know, the Facebook and Google, I can't use them in China. I tried to join some Facebook groups to rent a house, [but] because my account is new and doesn't have too much information, and because I didn't use Facebook, so the people would not really trust me because I didn't have a lot of social information there. And especially I want to move in with girls. Girls are particularly careful about the background checking for the girls, for the potential roommates, so it's pretty hard. All in all, I didn't get any house before I moved to U.S. because of this community trust thing. They don't trust me.

Rong eventually gave up using these Facebook groups to find housing resources. Instead, she turned to WeChat, a social media application from China that was popular among fellow Chinese international students in her town. Through its community commerce capabilities, she was able to find resources to settle down in the U.S.

4.3.2 Lack of Strong Ties. In addition, a lack of strong social ties hindered participants from engaging in community commerce. Pallavi [P9], an international student from India, was invited to join a WhatsApp group by a classmate. The group comprised approximately 50 alumni and international students of Pallavi's university, all from different countries of origin. The moderators, who had lived in the area for years, created the group to accommodate students' housing needs and would occasionally hold holiday gatherings. Yet, upon discovering WhatsApp's recent privacy issues, the moderators decided to migrate the community to Signal, an encrypted and allegedly more secure instant messaging service. In the end, Pallavi chose not to follow the move to a different platform because she wanted to remain in touch with her family, who were still on WhatsApp:

I was comfortable with WhatsApp. My entire family, all my friends use WhatsApp... I actually tried Signal, but the main reason would be to communicate internationally with family and friends, but it's very difficult using just a phone number so we generally do it through WhatsApp. Like I said, all of the people in India use WhatsApp most of the time. So it was very difficult to have them migrate to Signal.

Pallavi's case shows that many recent migrants feel tethered to platforms where their older networks remain, which may hinder their willingness to adopt new community commerce platforms that may facilitate their transition to a new country. Consequently, some may feel less motivated to interact with new social technologies that lack the support of their stronger, more intimate ties.

5 DISCUSSION

We aimed to study how recent migrants developed trust and engaged in community commerce to support their transition. Through interviews with 24 newcomers from diverse walks of life, we found that community commerce allowed them to fulfill material needs, visit new places, learn social norms, and gain a sense of belonging. Constituting these actions is a process of *sociotechnical adaptation*, in which participants navigate distinct social technologies to meet a specific goal—in this case, adapting to a new country. If done well, this adaptation requires that migrants have access to social capital, which they can gain online; technical skills, which they can apply to navigate community commerce platforms; and multiple human and non-human interactions, which require trust development. We see the emergence of an iterative process, with each component building upon and refining each other to bear a desirable outcome.

Our findings affirm past research that showed social media to be advantageous to recent migrants since they expose them to local information and communities [20, 31, 33, 42]. We advance this research by explaining how migrants develop trust through community commerce, which benefits sociotechnical adaptation. While general populations may well benefit from these capabilities and arguably undergo their own process of sociotechnical adaptation, we stress that these processes are critical to recent migrants who arrive with limited intimate knowledge of their host societies and must learn to adapt. We unpack the process of sociotechnical adaptation among recent migrants, discuss the platform's affordances that foster trust development, and conclude with a series of design recommendations intended to facilitate trust among recent migrants in the U.S.

5.1 Unpacking Sociotechnical Adaptation

We coin the term *sociotechnical adaptation* to conceptualize the increasing demands that people, including recent migrants, face in leveraging technologies to support their lives in a new cultural context. Sociotechnical adaptation refers to the ways in which people negotiate their use of different technologies and their relationships with individuals and groups in both their immediate and distant surroundings to thrive in novel settings. We draw inspiration from three other forms of adaptation discussed in prior migration literature [8]. These include: psychological adaptation [70], which refers to internal changes in mental wellbeing in a new environment; sociocultural adaptation [70], which alludes to gaining the skills required to deal with daily situations in a new culture; and economic adaptation [6], which relates to the ability to find new jobs and participate in local economies. Note that we are careful to distinguish sociotechnical adaptation from sociocultural adaptation. The latter is typically measured in terms of language development, the nature of social networks, and the comfort of living in a host country [5, 46]. With sociotechnical adaptation, we emphasize the tools just as much as the willingness and skills required to leverage technologies upon moving to a new place. We acknowledge without hesitation that future longitudinal studies will be vital to assessing how migrants' sociotechnical adaptation evolves over time [47, 49]. Notwithstanding, to explain its theoretical relevance to recent migrants, we focus on how this population adjusts their community commerce behaviors based on their willingness to adapt and grapples with their limited digital footprint in a host society.

5.1.1 Adjusting Community Commerce Behaviors to Adapt. Adjusting technology use is common when a person undergoes life transitions [41], and moving to a new country is no different. As

people move on through life, they learn new technologies and discard the ones they no longer need. Our findings indicate that recent migrants may face unique tensions in learning new technologies unavailable or unpopular in their countries of origin, thus confirming prior studies [28, 43, 56]. Recent migrants felt obliged by the platforms to adapt their technology interactions according to their diverse and, at times, disparate networks, such as using community commerce platforms to engage with their new neighbors and other sites to stay connected with families in their countries of origin. In some instances, they refrained from using social technologies where they lacked strong ties, even if the technologies offered benefits that were strategic to their adaptation to their host society. In other cases, they opted to stay out of community commerce due to perceptions of unfriendliness from existing users against newcomers. At any rate, sociotechnical adaptation demonstrates that these technologies are not artifacts that can exist independently from the diverse situations that recent migrants live out daily. Instead, migrants deftly adjust their community commerce behaviors according to how willing they are to meet their adaptation goals.

5.1.2 Grappling with a Limited Digital Footprint. While participants learned how to use community commerce platforms with relative ease, they still faced challenges in gaining the trust required to maximize the potential of their interactions with local community members. Recall that several participants had limited digital footprints in the platforms they joined upon moving to the U.S. Indications that their accounts were new or without user ratings inadvertently led other users to doubt the validity of their identities. Yet, invisible to users is that Facebook is unavailable in four countries, and Nextdoor is available in only 11 countries. This may prevent some migrants from having a footprint large enough for locals to determine their trustworthiness and reliability. Alternatively, recent migrants may feel uncertain about presenting their online selves without being familiar with the often hidden rules that underpin local interactions. In other words, while local users know what or what not to say based on their desired outcomes, migrants may have less knowledge about navigating such scenarios and thus face barriers in gaining others' trust.

Profile and identity assessments work both ways. As recent migrants looked into others' profiles to judge their trustworthiness, local users adopted similar strategies. Warranting theory indicates that people rely heavily on information, or the lack thereof, to judge if users are real and trustworthy [74]. Whether migrants post the wrong information or no information on their profiles can impact their ability to gain the trust of locals. In fact, the effects of having a limited digital footprint can be likened to those lacking a credit history. A reliable credit score in the U.S. is necessary for securing housing and car loans [63]. Yet, credit scores do not follow migrants from one country to another [21, 75]. Our results similarly reflect how their digital footprints do not always carry over to their new country. Therefore, recent migrants face multiple barriers to obtaining credit for vital resources and conveying trustworthiness to their host society.

5.2 Supporting Trust Development in Community Commerce Through Design

Four types of trust arose in migrants' interactions with community commerce: trust in individuals, trust in online groups, trust in offline communities, and trust in platform providers. Findings suggest that community commerce allows recent migrants to develop trust across online-offline boundaries, thus enhancing their transition to a host society and, we conjecture, their sociotechnical adaptation. We present design recommendations that leverage the six platform affordances to support trust in community commerce and the role of cross-platform intermediaries to bridge trust gaps.

5.2.1 Boosting Trust Development Through Platform Affordances. Table 4 presents the design recommendations we drew according to the six platform affordances we applied to community commerce. Profiles, posts, and comments are platform features affording metavoicing and social connecting, which are essential to trust development. Although these affordances support general

Affordance	Recommendation	Trust in an Individual	Trust in an Online Community	Trust in an Offline Community	Trust in a Platform Provider
Visibility	Recommending users provide stories and meaning behind the shopping posts (i.e., stories behind the item being sold and stories about why certain items are needed)	X			
	Setting up post templates for members to provide detailed information of the traded items/services		X		
Metavoicing	Prompting members to leave positive and friendly comments on each other	X	X	X	
	Highlighting positive comments to newcomers to the group	X	X	X	
	Building an appropriate social rating system	X			
Triggered Attending	Setting up reminders for recent migrants to join the interactions out of P2P transactions in the group		X		
Guidance Shopping	Pushing members to respond to posts that need additional information or recommendations		X		
Social Connecting	Providing overviews of members' peripheral activities on the platform so that members can more easily assess each other's trustworthiness	X			
	Providing message templates for friendly, polite, and culturally appropriate communication when communicating through instant messengers' built-in community commerce	X			
	Highlighting the common backgrounds with community members		X	X	
	Aggregating members' peripheral activities and transaction results to display as the community's collective activeness		X	X	
Trading	Establishing a secure payment system				X

Table 4. Design recommendations for supporting recent migrants' trust in community commerce, based on the six platform affordances [26, 27].

consumers in developing trust in P2P platforms [26], they are especially critical to recent migrants, who often have lower resources and lower levels of generalized trust. To enhance the benefits of these affordances, we recommend that designers consider (1) highlighting multiple shared identities of interest to migrants and (2) minimizing perceptions of outsidersness and feelings of indebtedness.

(1) Highlighting Multiple Shared Identities. Shared identity is critical to gaining trust in local P2P e-commerce. Multiple case studies exist on how singular identities support transactions, such as single parents finding affinity groups to buy and sell used parenting products [52] and mothers finding kinship through mutual experiences among group members on Facebook [60]. Nevertheless, these studies focus on singular identities without addressing how additional attributes may factor into the creation and evolution of community commerce platforms.

In contrast, our work reveals that shared and often different identities could complicate community commerce interactions. Sometimes racial and ethnic likeness perceived in local groups made participants feel welcome, while other times, racial and ethnic differences yielded feelings of isolation. Other categories like legal status, gender, and occupation may presumably also impact how trustful recent migrants feel through community commerce. Our findings affirm prior work showing that intersectional identities substantially impact how migrants build trust in local communities through social technologies [44]. Ultimately, recent migrants engage with community commerce in ways that demand closer attention to their collective identities. Future work can investigate in greater detail the diverse effects of trust development based on multiple shared identities among migrants.

(2) Curbing Perceptions of Outsidersness and Indebtedness. Understandably, participants often approached community commerce interactions as perceived outsiders. These perceptions were partly based on racial and ethnic differences or limited knowledge of local social norms. New to a community, recent migrants must spend time and effort developing their community identities in a host society. Past research on local social exchange platforms suggests there are some techniques migrants can use to ensure positive community commerce experiences [52, 53]. For instance,

migrants could leverage shared identities that resonate with native users, such as living in the same neighborhood, being parents, or having similar socioeconomic statuses [44, 52, 60]. Our results similarly suggest that helping recent migrants connect with similar users can foster their engagement with local P2P platforms. Future research can study how matching features beyond common racial and ethnic backgrounds can reduce perceptions of outsidership.

Feelings of having to mirror local behaviors may have also yielded an obligation to give away products, which echoes past research. To mitigate this concern, Lampinen et al. have proposed highlighting the value of being a recipient in a community [53], echoing past scholars [45, 51]. As some of our participants realized, receiving items from sellers was a service desired by local community members. We see an opportunity for community commerce platforms to emphasize this messaging to support migrants with limited resources during their transition. Future research can look into specific designs that work for migrants who are both new “to a platform” and “to a country.”

5.2.2 Bridging Trust Gaps Through Cross-Platform Intermediaries. In multiple instances, participants new to the U.S. were also new to community commerce platforms like Facebook. We see an opportunity for third-party applications to support recent migrants who have not had the time to strengthen their digital footprint as a way to foster inclusivity. Such applications could perform an intermediate role that permits users to remain active in their community commerce platform of choice, such as those frequented by strong ties, while forming meaningful new ties and making transactions in their host country. Such intermediaries could decide what user profile metadata should be transferred. For instance, they may consider making the number of transactions made on one platform visible on another. This suggestion aligns well with Dillahunt et al.’s recommendation for timebanks as intermediaries to help “carryover” reputation based on their past exchanges with other timebank members to vet those participating in cross-group interactions [22]. Evans et al. also recommended platforms such as Facebook to allow users to carry over activity histories across P2P e-commerce groups to foster an equitable marketplace in a low-trust context [32]. Vetting from contacts in their home countries might also be a feature. In this case, those from the host country who might be skeptical of conducting transactions could see the number of contacts who positively vetted the person wishing to make a transaction.

Interestingly, our participants did not mention concerns about their digital footprint when using Nextdoor. One possible explanation is that the platform is not as popular as Facebook, which may make users more receptive to newcomers. Also worth considering is that Nextdoor has features to support new users and people new to local networks, such as the ability to make introductory posts and connect with neighborhood leaders interested in welcoming new residents to the area. Although participants did not mention whether these features influenced their use of Nextdoor for community commerce, it is worth exploring in future work.

6 A REFLECTION ON SOCIOTECHNICAL ADAPTATION AMONG DISTINCT MIGRANT POPULATIONS: LIMITATIONS AND FUTURE RESEARCH PATHS

Our work aimed to explore broad recent migrants’ experiences in online community commerce. Therefore, we made no assumptions about participants’ migration status, despite the diverse status types and the forms of migration that exist. As we discussed earlier, migrants hold multiple social identities in their host country, and prior studies have investigated how different identities influence their migration experience. However, our work did not dive deeply into migrants’ legal status or willingness to migrate. Nevertheless, these two factors are critical to determining such individuals’ post-migration lives. For example, undocumented migrants risk getting deported if driving without a driver’s license or car insurance in as many as 34 states [18]. Our study shows that recent migrants

may refrain from using community commerce due to expensive transportation costs and concerns over physical safety. Further analysis of participants with precarious legal status might reveal additional difficulties in developing trust in community commerce, such as concerns over leaving an online footprint for surveilling government agencies [40]. Moreover, refugees experience traumatic and exploitative situations in their countries of origin that give them no choice but to flee to a new but hopefully safer place. Hence, that mistrust can lead to migrants developing a defense mechanism is understandable. Future work should explore how refugees and other migrants' concerns over trust translate into the use of local community commerce platforms.

Finally, we acknowledge that our study was limited to the U.S. and that all participants spoke basic or fluent English and had access to Internet-enabled devices. These conditions suggest that our participants likely have the resources and abilities necessary for a successful transition to the U.S. In contrast, migrants with limited resources and little English proficiency may have unique experiences with community commerce that we did not explore in our study. Since we focus on the U.S. as the host country, we realize that recent migrants who move to other countries could have different experiences with community commerce than participants based in the U.S. As we found, recent migrants could be reluctant to move to platforms with which they are unfamiliar. Community commerce platforms popular in other countries could play a critical role in recent migrants' participation in community commerce. Moreover, most participants' time in the U.S. overlapped with the acute stages of COVID-19 and several restrictions upon social events. Although our participants still went offline to exchange items and services for their community commerce transactions, they avoided long face-to-face interactions with sellers and buyers. Future research should apply methodologies such as diary studies or ethnographic inquiries to understand migrants' longitudinal transition once it is safe to do so.

7 CONCLUSION

Our paper presents a study of 24 semi-structured interviews to understand how community commerce influences recent migrants' adaptation to the U.S. We explored how this population's trust develops in community commerce and identified concerns they might face. Our work contributes *sociotechnical adaptation* as a novel concept to theorize an emerging form of migrant adaptation and design implications to better support recent migrants' trust development in community commerce. We explained how platform affordances like metavoicing and social connecting foster trust in local communities and enhance the advantages of community commerce, such as meeting local people, learning social norms, and facilitating transitions to a host society. Highlighting multiple shared identities, minimizing perceptions of alienation, and strengthening digital footprints through cross-platform intermediaries are all feasible design measures to support sociotechnical adaptation. We hope our explorations into trust development in community commerce inspire future work on how distinct migrant populations and other communities may respond to these social technologies.

ACKNOWLEDGMENTS

We want to thank our participants for sharing their valuable experiences. We are grateful to our anonymous reviewers for their constructive feedback to help us significantly improve the paper. We also want to thank In-Kyu Park for helping with our data analysis and contributing to earlier drafts. Lastly, we want to thank Shruti Sannon, Ben Zhang, and members of the Social Innovations Group for their feedback on the present article.

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Received July 2022; revised October 2022; accepted January 2023