El costo de la independencia: Latino house-cleaners in Technology-Mediated Labour Markets

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This paper explores the interplay between identity, collective action, and digital marketplaces among Latino house-cleaners in Toronto. Domestic work, such as house-cleaning, has traditionally been devalued, gendered, and delegated to marginalised immigrant populations. The informal nature of house-cleaning work, also introduces precarity, vulnerabilities and potential avenues of exploitation. Drawing on 19 interviews with Latino house-cleaners, the paper underscores how identity shapes experiences and strategies in the labour markets. We find that Latino house-cleaners prefer to use asynchronous digital marketplaces, such as social media commerce groups and online classified advertisement websites, as the platforms provides flexibility and control over their labour outcomes. The paper further delves into how group identities online - such as being Latino and women - foster collective action and solidarity. The paper provides insights on how we can support the needs support the challenges and needs of immigrant domestic workers in technology-mediated labour markets.

CCS Concepts: • **Human-centered computing → Collaborative and social computing**.

Additional Key Words and Phrases: house-cleaning, domestic work, immigrants, gender, labour markets, informal work, collective action, solidarity

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1 Introduction

The narrative of meticulous cleanliness and neatness - compliments on the spotless state of a residence, neighbours' admiration of a shining kitchen in a two-story house, an individual's peace of mind upon observing pristine bathrooms at dawn and the late-night satisfaction of finding a home dust-free - is common in elite urban settings. Yet, this narrative seldom acknowledges the individuals instrumental in creating these settings: the domestic workers, specifically house-cleaners. Domestic work has traditionally been devalued, gendered, and delegated to marginalised populations [62, 102], an act that echoes its lack of recognition. Particularly, house-cleaning work has been framed as an invisible job [95], performed in private households. It is physically demanding [68], requires material labour, involves interactions with materials, chemicals, and other inputs,

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as well as immaterial labour [98], and encompasses the creation, maintenance, and sharing of information and emotional responses to ensure the well-being of households and tenants.

Around the world, domestic work has developed into the largest employment for migrant women. Statistics from the International Labour Organisation suggest that "there are 67 million domestic workers providing care services, of whom 11.5 million are migrant domestic workers and 8.5 million migrant female workers respectively" [57]. This figure reflects the mobility of domestic work globally, and reinforces the idea that populations from the global south are "performing jobs that 'others do not want to do'" [102]. Therefore, immigrant communities find in the informal economy, particularly through domestic work, a way to sustain their economic life in the recipient country. The remarkable growth of the domestic services market in urban areas [94], coupled with its commodification [56], has fostered the outsourcing of such labour, thereby altering the dynamics of employment relationships. This shifting landscape has further paved the way for the rise of digital economy catering to the realm of domestic work.

HCI and CSCW literature has studied the role of digital platforms as intermediaries that mediate work for immigrant communities [53, 137]. These studies shed light on how digital platforms allow immigrant workers to exercise their labour as they navigate their lives in new labour economies. There has also been work on the professionalisation of domestic service and the rise of on-demand service jobs through new intermediary infrastructures, such as Digital Labour Platforms (DLPs) for different groups of users to find and receive domestic services [99, 120]. However, there has been less work regarding the role of asynchronous digital marketplaces (ADMs) in shaping labour outcomes. We define ADMs as digital platforms that facilitate peer-to-peer communication and economic transactions between buyers and sellers without the need for intermediaries and typically do not need to occur in real-time or on-demand. These include social commerce through Facebook groups and Instagram, and online classified advertisement websites, such as Craigslist. Asynchronous communication in ADMs allows for negotiations and flexibility in transactions, while the absence of intermediaries provides sellers with greater agency. These platforms have become important tools for shaping the informal networks of immigrant communities, serving as a means to navigate their economic lives and strengthen identity-based relationships through online immigrant communities. Domestic work through these platforms integrates the informality of ADMs with the informal, undervalued, private, and gendered nature of domestic work, along with the immigrant identities of domestic labourers.

This paper seeks to explore how technologies mediate domestic work for immigrant workers by understanding the landscape of Latino [1] immigrant house-cleaners in Toronto. While previous research in CSCW has explored the new platforms and infrastructures that mediate domestic work [61], we extend this field by mapping the experiences of specific communities encountering increased technological mediation in domestic work and cleaning markets. Specifically, we delve into how the Latino immigrant community in Toronto employs digital technologies to navigate the labour market. As such, it addresses the following research questions:

- **RQ1:** How do Latino house-cleaners use digital technologies to navigate labour markets in Toronto?
- **RQ1.1:** How can CSCW researchers better understand and support the challenges and needs of migrant house-cleaners in technology-mediated labour markets?

Addressing these questions, this paper explores the digital platforms that mediate the work of Latino immigrant house-cleaners, examining their choices of technologies for navigating labour markets and the influencing factors behind those decisions. We explore the intersections of labour

[1]For the purposes of this paper we will use "Latino" to refer to mixed-gender groups of people. We chose this language to align with the language used by our participants

markets, immigration, and gender, focusing on how domestic work acts as an entry point for migrant women, delving into the challenges they face in low-skilled and informal employment, taking into account the role of placement agencies and the invisibility of domestic labour. Based on 19 semi-structured interviews with Latino house-cleaners in Toronto we study the mediation of this labour through technology, its transformation into a professionalised job outsourced through digital platforms, and the role of technology-mediated practices, digital impression management, and collective organising. Additionally, we highlight the importance of looking beyond DLPs, instead focusing on ADMs, encompassing digital platforms that mediate economic exchanges without intermediaries, such as online classified advertisement websites (e.g., Craigslist, Kijiji[2], and *Compra y Venta*[3]), and social media commerce (e.g., Facebook groups). Furthermore, we explore the informal nature of house-cleaning, the role of digital platforms, and the individual and group strategies employed to challenge and overcome the inherent control, rigidity, and regulations prevalent in immigrant life.

Latino house-cleaners in Toronto, in particular, harness asynchronous digital marketplaces (ADMs) to navigate their social and economic lives, resist precarious conditions, and seek greater autonomy. The paper points out the importance of intersectional identities, such as ethnicity (e.g. Latino), gender (e.g. being a woman) and language, in shaping experiences within labour markets and in constructing more inclusive and equitable digital spaces. The paper further highlights the crucial role of shared group identities in fostering cooperation and solidarity among house-cleaners (especially women), countering the precarity and exploitation inherent in unregulated work. Shaped by voluntary labour, these bottom-up community-run digital spaces generate channels of support and assistance, and provide insights for supporting vulnerable immigrant communities. We offer design recommendations for CSCW researchers around selective visibility, leveraging group identity, and supporting information exchange.

2 Related Work

2.1 Labour Markets, Immigration, and Gender

Domestic work responds to global labour hierarchies and unequal geographic distribution of work [47]. For segments of migrant populations, particularly women, domestic work is a means of entering the labour market; a trend exacerbated by the socialisation of women into roles characterised by care-giving and household management [100, 101]. For example, Latina women are one of the primary caregiving communities in countries such as the United States and Canada [96].

Immigrants often face significant barriers in accessing work, usually leading to their participation in low-skilled and low-wage jobs, like the service sector, or unregulated forms of employment such as gig work [70, 122]. Anderson, [7] in her analysis of domestic work, observes that immigration legislation frames migrant workers as "a unit of labour, without connection to family and friends, a unit whose production costs (food, education, shelter) were met elsewhere, and whose reproduction costs are of no concern to the employer or the State". This type of unregulated work operates in the informal economy, with low state control and protection levels. Further, concerning marginalised communities, informal work is characterised by active attempts to avoid state surveillance and control [36]. Consequently, social regulation, rather than state regulation [14] is the primary means of regulating work practices. This social regulation results from existing social structures; informal work is subsequently embedded in networks of social relations and institutions [44].

[2]Canada's largest classifieds site and online marketplace in English and French

[3]is the leading "Semanario" (Weekly Newspaper) offering the service of free Superclassified ads publication throughout Canada. It provides services and integrates companies and citizens of Hispanic origin.

Research within the informal economy has explored how migrant cleaners find themselves in exploitative workplaces, subject to gendered and racialized dynamics along with control, surveillance, and exploitation by intermediaries [51]. In this legally grey zone where immigrant women workers work, placement agencies have played a crucial role as middlemen in the labour insertion processes, reinforcing the precarious conditions of domestic work. These agencies exercise forms of control over the workers through strategies that highlight the gendered, racialized nature of work. For example, in Canada, the employee selection process by these agencies has been documented as reproducing racial and aesthetic stereotypes [10, 11]. Another control mechanism relates to the migratory status of women workers. For instance, women with tourist status or without work permits are usually recruited by the agencies without any stability of time or money during the work. Thus, they are exposed to abuses of various kinds, creating situations of vulnerability, uncertainty, and job insecurity [11]. These circumstances significantly limit their ability to negotiate. In response to this problem, since the 1990s, advocacy groups such as "The Urban Alliance", created in 1992 in cities like London, Canada, and organisations such as INTERCEDE, have mobilised in defence of migrant workers' rights [10]. While these initiatives aim to visibilize exploitation, studies [95] have also examined the relationship between invisibility and domestic work, highlighting how domestic labour has historically been disregarded and rendered invisible by the market and in client households [77]. This invisibility heightens in the context of immigrant labour, where workers often choose to keep their jobs hidden from the state due to a lack of legal recognition of their status or work [51], a desire to minimise interactions with complicated and discriminatory bureaucratic processes, and/or the need for flexible and autonomous work arrangements.

Understanding how the flows of people, information and technologies across borders shape sociotechnical practices and the inherent tensions have been considered through theoretical lenses such as Transnational HCI [114, 133]. In the context of immigrant labour, HCI scholars have documented how workers acquire skills outside formal education systems, establish independent markets, and adapt technologies as part of acculturation to a new place [65, 67]. Studies also highlight the importance of analysing global South-North mobility, where transnational migration involves many technologically mediated practices of information and communication, including technologies that improve social connectivity, environmental navigation, or financial practices [91, 103, 104, 123].

2.2 Technology-Mediated Labour and Domestic Work

Domestic work has undergone a transformation from a personal and family-oriented job, a relic of post-industrial revolution nuclear household structures [129], to a professionalised job which can be outsourced to service workers [115]. The commodification of this work responds to the service sector's tendency towards normalisation, segmentation, and the expansion of "just-in-time" employment practices, transforming domestic work into contingent work. In this context, a historically perceived informal and non-professional occupation has undergone a transformation, facilitated by key actors such as agencies, playing an essential role in its professionalisation and unstable temporality [131]. However, the persistence of this contingency, coupled with the rise of the gig-economy, enables digital platforms to continue reshaping the landscape of domestic work. For instance, studies have found gig platforms contribute to the professionalisation of care work in India (i.e. beauty workers) [99].

Huys [56] reflects upon the history of the commodification of domestic labour and argues that technologically-enabled commodification has led to an increase in capitalist service labour where "money-poor" domestic labour caters to "time-poor" households while being controlled and monitored by transnational corporations. These digital labour platforms (or DLPs) (such as Care.com, Handy, and SweepSouth) govern the possibilities of interaction between different user

groups [118], and play a dual role in impacting workers' job conditions: they can prevent worker exploitation by ensuring fair wages and establishing rules that balance power asymmetries or they can reinforce unequal relations, increase instability, disregard workers' dignity, and create new avenues of exploitation [13, 34, 48, 54].

Despite the emergence of DLPs, asynchronous digital marketplaces (ADMs) remain important tools that shape the economic life of marginalised communities and help them participate in market transactions and build networks due to their informal nature. In social commerce [60, 82] (and community commerce [84]), users reduce risk and uncertainty in economic interactions by creating and leveraging community networks. Previous HCI work has explored how Facebook groups allow trustworthy market transactions facilitated by communities built around shared group identities that create rules and systems of monitoring and sanction [35, 84]. This has also been well-documented in scholarship on HCI research in offline informal markets [27, 27], with interactions shaped by interpersonal or particularistic trust, i.e., trust based on personal relationships and social networks rather than generalised trust [75]. New migrants lacking these social networks often face significant challenges as they engage in social commerce [52]. Studies [82] also show how such commerce is both shaped by and challenges existing urban spatial configurations and traditional (very gendered) socio-economic hierarchies.

Online classified advertisement websites (or online classifieds), in contrast, offer selective visibility, i.e. they allow "ordinary people to reach a wide audience while retaining their anonymity" [72]. Lingel [72] argues that classifieds such as Craigslist are ungentrified spaces where actors have agency, the ability to influence the content of their advertisements and the reach of their audience. Although the role of online classifieds as a technological mediator of digital work has not been extensively explored in the literature, existing research has focused on their linguistic characteristics [89], marketing practices [87], and inherent biases [108].

Research has contrasted social commerce and online classifieds around tensions related to anonymity and visibility, which are important for the monetization of platforms [71]. Further, classified websites like Craigslist can tend to generate a certain range of distrust due to the anonymity of authors and possible avenues of exploitation [71, 74]. This differs from social media groups, such as Facebook groups, which are centred around trust built through real-life identities, community networks, and repeated interactions [35, 84]. There is also a difference in visibility related to how jobs are posted on social commerce vs. classifieds: while on classifieds, the visibility is solely linked to the date or frequency of the posts, or "an unfiltered free-for-all" [72] without providing details that might foster interaction and closeness between client and employer. In comparison, social commerce feeds are shaped by algorithms, where posts can appear based on likes, views, comments, and even "selfie displays of consumer status."

2.2.1 Digital Platforms, Domestic Work, and Gender. Domestic work is different from other types of labour as workers operate within the private sphere, i.e., client households. This difference shapes how cleaners are subject to client and intermediary surveillance and evaluation. As previously noted, the commodification of domestic labour has transformed it into a paid service and reinforced its gendered implications. The ongoing digitalization process further reshapes the landscape of domestic work, introducing new dynamics and considerations for both workers and clients. However, the spaces generated by digital platforms remain linked to the socio-historical realities of domestic work. Studies have delved into the relationships between ICTs, gig economy and gendered care work, and examined technology-mediated domestic work through two intersecting dimensions: algorithmic governmentality and emotional labour. Algorithmic governmentality, [8] includes matching, controlling, and surveillance experiences of workers, while emotional labour involves the role of the body, emotions, and the temporality of care [1, 81, 98, 111]. Beyond algorithms,

domestic workers have to further navigate domestic technologies that surveil within households, such as smart homes, where the insertion of new technologies and devices can result in adverse effects of power imbalances on domestic workers' privacy and individual agency [15], result in feelings of discomfort and concern about being surveilled [16], and even facilitate exploitative practices [3].

Studies on women's experiences on digital labour platforms have shown how gendered labour biases are often reaffirmed in technology-mediated marketplaces. Previous work documents salary disparities and biased acceptance rates on platforms [30, 48, 61]. Digital platforms, especially DLPs, also reinforce gendered division of labour [76] with a disproportionate number of women engaged in domestic work through digital marketplaces [8, 25]. For example, in India, "women workers are concentrated on home service platforms, such as UrbanClap, HouseJoy, BookMyBai, etc., where they perform tasks, such as domestic help, care work, and beauty services" [61]. On similar lines, online classified websites have the potential to reinforce gendered division of labour. For example, Lair[64] demonstrates how domestic work on Craigslist is often associated with emotional labour where advertisements often seek workers who can become 'part of the family' by taking on additional caregiving and household responsibilities. These advertisements also contain indicators of precariousness, such as limited economic and social benefits. Further, the anonymity of classifieds enables the continuation of employers including precarious conditions in their postings as it fosters an environment where "there are no rules, no norms; everything happens in the shadows and engenders shadow behaviours" [64].

2.3 Digital Impression Management

Across digital platforms, social networks, and websites, workers adapt strategies to construct their online identities. Researchers have used the notion of impression management [41], to explore how workers present themselves to others. Drawing on symbolic interactionism and theatre as a metaphor for social life [38], Goffman's theory suggests that individuals adopt specific roles in the presence of an audience to exert control over the impression they convey [37]. HCI and CSCW research on digital impression management has investigated motivations for building public images online on social networks[106] and DLPs [76, 85]. This research highlights how online identities are influenced by social norms and rules from specific socio-technical contexts, and manifest both explicitly in posts and in non-textual communication and cultural behaviours.

Given the challenges facing workers (such as freelancers and gig workers) working in DLPs in securing work, HCI/CSCW research has highlighted how workers use impression management strategies to overcome existing obstacles [37, 85]. To manage digital impressions, workers must balance what identity information to hide and present; constructing profiles according to criteria that are attractive to employers [134], and choosing impressions that adhere to traditional notions of professionalism [85]. Another key aspect of managing digital impressions is the monitoring of customer feedback and ratings [85]. Through their affordances, digital platforms play an important role in shaping worker profiles, as these platforms sometimes suggest constructing profiles that are "simple and to the point" [134]. This advice is intended to help clients better understand their services and differentiate themselves from competitors [18], and highlights the ongoing tension between personal identity expression and the normative demands of platform-mediated labour markets.

CSCW and HCI studies have explored the non-neutral nature of rules governing online workplaces, particularly pointing out how these rules intersect with gendered dynamics to influence women's autonomy and impression management strategies [37]. For instance, Ma et al. [76] argue that "the less women incorporate feminine notions of gender identity in their work, the more likely it is for platform algorithms to reward them". This bias not only curtails their access to quality

job opportunities, but also necessitates an additional layer of invisible labour, managing personal information to navigate safety concerns and avoid harassment. This tension forces women workers to carefully manage their online personas, prominently displaying certain details to highlight their professionalism to gain visibility, while concurrently omitting details that might compromise their safety. Previous research on work platformization has also addressed intersectional identities, noting how migrant gig workers on Digital Labour Platforms (DLPs) often choose to hide details such as their nationality or ethnic origin to avoid stigma or discrimination associated with platform-based services [4, 39, 138]. Consequently, workers create or purchase false identities [4, 42], which could expose them to new vulnerabilities if discovered. These studies show the role of platforms in transforming known issues of inequity among workers from marginalised populations for good or ill [85].

2.4 Digital Labour and Collective Organising

Labour scholars have explored how digital labour platforms (DLPs) and social media platforms have shaped labour practices by offering new ways for workers to connect and communicate with clients and other workers. Specifically, previous scholarship has demonstrated how digital workers create 'entrepreneurial solidarities' in response to precarity [5, 116]. These solidarities emerge through various digital platforms, which enable workers to mitigate the geographic disparity inherent in their occupations, encourage collective action, and provide a basis for identity and social formation. In these online spaces, workers communicate about labour practices, discuss fair wages, and share stories of manipulative employer experiences [58, 105]. For instance, the Turkopticon — an online space created for workers on Amazon's Mechanical Turk to organise and resist exploitative working conditions — is an example of designing platforms to facilitate collective organising [58, 59, 105]. These studies show how independent workers who rely on digital platforms must operate in a capitalist and individualist market by self-advocating and becoming entrepreneurs [107, 127]. Workers resist these capitalistic forces, however, by forming digital community spaces built on mutual support [136].

Research on collective action in digital labour contexts highlight the tension between individualistic entrepreneurialism and collective organisation [23]. Bunders [23] argues that digital workers are atomised by short job contracts and socio-geographic separation, which obstruct solidarity ties and opportunities for self-organisation. This tension is visible in decentralised work environments where deskilling, codification, black boxing, and algorithmic management also undermine organisational identities. In these spaces where political structures restrict mobilisations and unions, isolated worker communities self-organise to establish communication structures amongst group members [124]. Collective bargaining has also been associated with a standard employment relationship and clear power distributions [23]. This bargaining is seen as a response to conditions of labour insecurity recreated on digital platforms, such as payment variability [110].

In recent years, there has also been discussion of different forms of collective action, solidarity, and self-organisation among gig workers and the digital economy, particularly in the context of ride-hailing and delivery workers [93, 126]. Among these workers, solidarity emerges through shared interests and actions. These include resistance to platform policies such as algorithmic control and to the lack of labour guarantees [23]. Workers establish a system of mutual support actions such as shared resources and practical assistance. In these contexts, a group attitude emerges as "workplace solidarity" which drives these supportive actions [124] and has the potential to combat individualistic capitalist structures and accompanying insecurities.

CSCW scholars have noted types of community support that are fostered among digital workers through identities not linked to work but rather through community ties[28, 33, 109], such as those formed among mothers or women. Previous CSCW work has also focused on local community

support that emphasises group-based support systems and collective methodologies, contrasting with the traditional individualistic approach [52]. Such approaches align with asset-based community development, which stresses the importance of identifying and harnessing local assets to enhance community ties [9]. Additionally, research has explored how communities navigate and overcome social exclusions, shedding light on the often overlooked dynamics of class and race in entrepreneurial spaces. These dynamics are fundamental to fostering class mobility and solidarity, essential for supporting diverse labour conditions.

Understanding the development and interplay of vulnerabilities through multiple marginalised identities is at the centre of our study investigating how Latino house-cleaners navigate digital platforms. We observe the ways these house cleaners in Toronto leverage impression management within digital platform affordances to find employment as individuals, and create safer systems of seeking employment as a collective.

3 Data and Methods

For our study, which was approved through our university research ethics board, we conducted 19 semi-structured in-person and online interviews with Latin American immigrant house-cleaners in Toronto, Canada. Our primary objective was to better understand house-cleaners' experiences and the role of technologies in their work practices. Throughout our research process, we worked to consider the needs and privacy of our participants. One of our researchers (R2) was affiliated with a local community centre for migrant work seekers and was able to advise us on our ethical decisions, such as how to ask about migrant status as a result of that work. Our interview protocol consisted of four main categories: demographic questions, including their immigration journey and their family and household, background, work history and work practices, focusing on their experiences and feelings about housekeeping and house cleaning, communication within the Latino community, and the role of technology in their work and daily lives.

3.1 Participants and Recruitment

We employed a multi-faceted approach to recruit participants. First, the two researchers who identified as Latino (R1, R2) posted recruitment messages on Latin American immigrant Facebook groups. Both R1 and R2 were already members of these groups and understood the group norms. Second, we sought the assistance of a local community centre, with whom R2 was affiliated, which facilitated the connection with several participants and served as the venue for some of the interviews. We subsequently used snowball sampling to recruit cleaners and focused on diverse representation based on variations in life trajectories. This diversity encompassed differences in nationality, immigration status, ethnicity, educational background, and gender. However, given how gendered the profession is, all but 2 of our participants were women. The participants had resided in Toronto for a period of 3 months to more than 10 years and were between the ages of 20 and 60 years. None of the participants engaged in house-cleaning work before moving to Toronto and the majority of them had studied professional degrees in their countries of origin. In terms of cleaning experiences, they have worked in households, offices, and buildings. 14 participants had some experience working with cleaning agencies. At the time of the interviews, while all 19 did independent work, 7 still continued to take work from agencies. Two participants (P2 and P12) did not use ADMs, however, their interviews still contributed to understanding the various strategies and tools used along with their work experiences with intermediaries such as agencies.

3.2 Data Collection and Analysis

Each interview lasted between 60 and 120 minutes. Interviews took place either online via Zoom or in-person, according to the participant's preference and availability. Online interviews were

preferred by participants requiring convenience, for example, mothers who needed to stay with their children. Conversely, some participants opted for in-person interviews in public or familiar settings such as a cafe or community centre. The participants were compensated with $35[4] per hour and recorded with the consent of the participants. Participants received consent documents in Spanish and verbal consent was collected prior to the start of each interview. To protect the confidentiality of the participants, we did not collect any information related to the legal status of the interviewees or their migration journey to Canada. The interviews were conducted in Spanish (the interviewee's origin language) by two members of the research team, the first (R1), who conducted 13 interviews, is a Colombian woman. The second interviewer (R2), who conducted 6 interviews, is Latin American and Venezuelan, and has prior experience working as a house-cleaner in Toronto. Both interviewers are native Spanish speakers. Following the interviews, R1 transcribed the interviews in Spanish and then translated them into English. We chose to translate the transcripts into English because of limited capacity of the native Spanish speakers on the research team and the desire to include a diversity of researcher perspectives in analysing the data, by including non-Spanish speaking researchers. Although R1 played a crucial role in helping the rest of the team understand Spanish phrases and meanings that were difficult to translate into English, we recognise that if we did not analyse the interviews in the same language as the participants, we could potentially miss specific meanings and nuances. Following translation, we used an iterative inductive analysis process of coding transcripts and then developing our codes into high-level themes using thematic analysis.

For our inductive data analysis process, we followed four steps. First, the entire research team met to build an initial codebook based on preliminary debrief conversations and field notes from the interviews. Second, R1 and R3 iteratively coded the transcripts using the preliminary codebook. R3 is a white, Canadian-American living in Toronto who did not speak Spanish but had experience in domestic work in relation to childcare. Coders R1 and R3 had distinct positionalities, and their differences in lived experience affected intercoder agreement, based on their differing perspectives on the same data set [50]. R4, a white Canadian who speaks Spanish as a second language and is experienced in this paper's inductive analysis process, acted as a coding arbitrator to assess R1 and R3's intercoder agreement at each coding iteration, and led discussions to reach consensus. The entire data collection and data analysis process was guided and overseen by R5, a South Asian man who is an expert in the research methods and data analysis used in the project. Our initial codebook contained 70 codes, and following three coding review cycles, we created a finalised codebook containing 8 categories and 46 total codes.

Third, R1 and R3 coded the 19 interviews again according to the final codebook (Appendix A), and R4 arbitrated any coding differences, creating a final coded data set. The final Cohen's Kappa was 0.64, indicating strong intercoder reliability [80][5]. We used Cohen's Kappa to develop a common framework for understanding the codes and interpreting the data rather than to reach a singular positivist interpretation[86]. The coding categories were revised at each iteration by adding new codes or modifying existing ones. Once the codebook was finalised and all the transcripts were reread and recoded by the coders, R4 resolved any differences and created a final coded dataset that the entire research team discussed.

Finally, we analysed the final coded dataset using themative analysis [21, 31] to generate and define themes. This process involved R1, R3, R4, and R5 independently analysing the dataset, and then discussing emerging ideas. We generated several theme ideas, which we eventually narrowed

[4]Canadian dollars

[5]We relied on Cohen's Kappa's intercoder reliability assessments as they are appropriate for developing codes, identifying points of disagreement, and ensuring intercoder consistency when appropriate [79]

down to five central themes: informality and housecleaning; labour, identity and technology; navigating digital platforms; digital impression management, and communities of support.

The authors have a combined academic background in Computer Science, Information Science, Science and Technology Studies, and Sociology. The authors and research assistants were self-reflective about their own positions as contributors and were mindful to acknowledge and rectify power imbalances between each other and with participants whenever possible.

Table 1. Overview of Interview Participants. Note: "Univ." = University, "FB" - Facebook Groups, "Cyv" - Comprayventa, "CL" - Craigslist, "*" - AskforTask DLP , "None" - Didn't use

P	Age	Nationality	Gdr	Yrs in CA	Educ. Level	ADMs	Agencies
P1	50-59	Venezuela	W	6-10	Univ.	Kijiji	Past work
P2	50-59	Mexico	W	11+	Univ.	None	None
P3	30-39	Mexico	W	0-1	Univ.	FB, Kijiji, Cyv	Past work
P4	30-39	Chile	W	6-10	Univ.	FB, Kijiji, Cyv, CL	Past work
P5	30-39	Mexico	W	11+	Univ.	FB	Current work
P6	40-49	Peru	W	2-3	N/A	FB, Kijiji	None
P7	20-29	Mexico	W	0-1	N/A	FB	Current work
P8	40-49	Mexico	W	0-1	Univ.	FB, Cyv	Current work
P9	20-29	Peru	W	11+	High Sch.	FB, Telegram, Kijiji	Current work
P10	40-49	Venezuela	W	6-10	Univ.	FB	None
P11	20-29	Ecuador	W	11+	Univ.	FB	Past work
P12	40-49	Mexico	W	0-1	Univ.	None	None
P13	30-39	Chile	W	0-1	Univ.	FB, Kijiji, CL	Past work
P14*	40-49	Colombia	W	4-5	Univ.	FB	None
P15	30-39	Chile	W	4-5	Univ.	FB	Past work
P16	60-69	Mexico	M	6-10	Univ.	FB	Current work
P17	30-39	Chile	W	6-10	Univ.	FB, Kijiji, Cyv	Past work
P18	30-39	Chile	M	4-5	Univ.	FB, Cyv	Current work
P19	30-39	Mexico	W	6-10	Univ.	FB	Current work

4 Findings

4.1 Informality and House-cleaning

Our participants highlighted that Latino immigrants often find themselves engaged in informal work, where there is little or no legal support or protection. Despite the lack of support, participants chose informal work like house-cleaning to gain access to higher paying, more flexible jobs, and to form direct relationships with clients. However, participants still felt the constant struggle to earn a living while navigating the uncertainty and risks inherent to informal work. In our study, we found that house-cleaners in Toronto worked independently and through intermediaries such as agencies.

4.1.1 Intermediaries and Agencies. Participants who worked with agencies explained how they signed contracts with these employers who then handled cleaning arrangements in buildings or homes. Agencies reduced the overhead labour involved in finding work and promised more consistent employment: useful benefits for newcomers to Toronto. In contrast, independent cleaners had to arrange their own work contracts. While this independent work presented new instabilities

and vulnerabilities, it also afforded cleaners control over their tasks and the ability to negotiate with clients for desirable working conditions. One of the participants (P19) spoke about how they got lucky with the right agency:

> "I feel grateful and blessed ... I have several years in a company that has adopted me ... For example, today my supervisor spoke to me and told me because you are from that company we want to pay you for all the holidays, even when it is not their obligation..." -P19

However, despite the conveniences associated with agencies, all the other participants expressed problems with the work environment and conflicts with their agencies. Participants shared how they quit agencies due to exploitative working conditions:

> "I was mistreated and no, no, I don't think it was a decent job. I mean, I liked the work, but not the way of treatment, from this person, that's why I left". - P3

Participants highlighted a recurring pattern of abuse when working with agencies. While these intermediaries offered short-term contracts, they did not provide stable or consistent work, and dictated cleaners' schedules. For example, participants mentioned how agencies would cancel jobs without warning. Assigned tasks also related to cleaners' tenure status in the agency. P17 explains:

> "[the agencies] have temporary workers and there are workers, for example, who already have a permanent job [...], so what I have to do now [as a temporary worker] is to cover for someone who is missing".

This testimony illustrates that working through intermediaries diminishes the control cleaners had over their work practices and binds them to on-demand assignments rather than to stable long-term employment. Participants also described how agencies offered little control over the amount and methods of payment and how low English skills impacted their ability to advocate for themselves. Participants also stated that there were no standard payment rates at agencies, which led many to leave them. One cleaner (P7) noted the challenges of waiting for payments through agencies:

> "If you have to pay something quickly, you have to wait until the end of the month. And it's not very good either. And many pay, but many don't even pay". - P7

Female cleaners who worked in agencies also encountered harassment from men. Despite concerns for her safety, P13 shares how she was still forced to work in the same space as her abuser:

> "But the man I had to work within the building told me: first of all, that my name was very pretty, then that if I had already had coffee, that if I wanted he would bring me a coffee, which one I liked, that when I left he could take me home, that he was a photographer and could do a photo shoot for me. And then, I was like... this... I came to work, not to take pictures." -P13

These testimonials demonstrate the lack of bargaining power with agencies to establish desirable payment structures and fair and safe working conditions.

4.1.2 Tech-Mediated Independent Work. Digital platforms have become instrumental tools for workers, particularly immigrants, in navigating the often precarious working conditions they face. Unlike other types of gig work, which take place in platform-specific applications [32], our participants looked for work on ADMs, including social media platforms such as Facebook and on digital marketplaces such as Kijiji, Craigslist, and *Compra y Venta*.

Cleaners who chose to work for themselves relied on these digital platforms to source work and find ways to mitigate the inherent uncertainties and vulnerabilities associated with informal work. By effectively using these platforms, they were able to claim control over their work, negotiate

fair wages, and enjoy flexibility in managing their work routines. For instance, P14 highlighted the opportunity to earn more income by charging per room rather than per hour. This control and flexibility in determining the payment model influenced her decision to work for herself rather than with agencies: "basically because I earn more on my own, it's more money and less time". P14 was the only participant that had tried a DLP, Toronto-based AskforTask, and critiqued their inability to negotiate working conditions with the platform giving clients disproportionate power, while also forcing cleaners to directly compete with each other for jobs.

Our participants stressed the importance of flexible work arrangements, which they found empowering. P16, who relies on ADMs, identified the flexible schedule as the greatest benefit of her job. Additionally, she highlighted the importance of flexibility in balancing care-giving responsibilities. She explained that when her children are sick, she can communicate with clients and make necessary adjustments, stating, "looking at it from that side, sometimes I have sick children and I write to the clients, I tell them, this day I can't go, we can change the day". P16's reflection illustrates how flexible hours and work arrangements hold particular significance for women cleaners and mothers, allowing them to manage their domestic care-giving duties while maintaining control over their work.

Directly connecting with clients rather than reporting to an agency also allowed participants to maintain autonomy over their work. As P6 shared: "I take my time and I work in my own way. [...] I don't have any supervision that is [...] I know the homework I have to do and I distribute it in 8 hours". P6's circumstances highlight that the greatest advantage of her work arrangement is the ability to allocate service time as she sees fit, without facing constant evaluation of her cleaning performance. Working independently enabled house-cleaners to reclaim authority over their work, as expressed by P14: "I really liked to be my own boss, to have my own schedule, to set my own hours, not to look for a formal job". Participants thus prioritise entrepreneurship in their work, and the control and flexibility that come alongside this work management style.

ADMs also allowed cleaners to regulate their labour relations by managing and filtering relationships with clients and establishing payment conditions for their services. P18, who previously worked at an agency, described how finding work through digital marketplaces enabled her to earn more money: "when I worked with companies they paid by the hour. I now have my own company, I charge by the job, not by the hour" (P18). Despite the additional labour of coordinating their own work, cleaners were positive about self-organising because it afforded them greater flexibility and control over their tasks, schedules, client relationships, and wages.

4.2 Labour, Identity, and Technology

Participants used a diversity of digital platforms to navigate online and offline spaces. These platforms include social networks, online classified sites, messaging applications, and DLPs. As immigrants, social networks and messaging applications provided practical and emotional support to house-cleaners in their transition to Toronto. House-cleaners commonly used Facebook for assistance during the migration process and for work-related needs, and WhatsApp to share knowledge about their work, including cleaning tips and products.

Social media networks such as Facebook, and online classifieds such as Kijiji, Craigslist, and *Compra y Venta*, played a crucial role in helping house-cleaners establish connections with prospective clients. Cleaners used these networks to engage with potential clients through posts and advertisements, and to schedule cleaning appointments. Participants also mentioned DLPs that focused on inserting workers into new digital economies or gig work, such as the AskforTask app, which matches workers with clients and platformizes cleaning work, and Nextdoor and Karrot, which operate similarly to Facebook groups and organise the supply and demand of services between neighbours.

Participants frequently mentioned the use of *Compra y Venta*, a free online classified and marketplace site for Hispanic communities living in Canada, which also provides a physical and virtual weekly newspaper. Participants relied on this site to connect with clients and find work. We found that our participants selected digital platforms for navigating the domestic cleaning labour markets based on three key factors: language, identity, and technological features.

4.2.1 Language. Communicating in their native language, Spanish, allowed house-cleaners to navigate digital platforms more comfortably in online and offline settings. Concerns about inadequate English proficiency and the fear of facing communication difficulties with clients led participants to use platforms well-known to the Latino community, such as *Compra y Venta* and Facebook groups. For instance, P19 shared how she did not download a certain application because it was in English:

> "I was afraid to write in English, so it was like uploading photos and who knows here and there, and then I said oh no [...] I didn't lack work, [...] I didn't feel the need to learn it because I was already working and I didn't have time".

Other cleaners (P18, P6) perceived that Spanish-language classifieds were better because they offered a greater number of cash job opportunities. As P18 remarked about the *Compra y Venta* website, "you look for a job and almost all the jobs on this page were cash" (P18). Cash payments incentivised cleaners more as they guaranteed prompt payment upon job completion as opposed to payment through agencies, which often involve lengthy processing times.

Participants (P14, P4) opted for non-Spanish platforms that allowed them to advertise their services in English, enabling them to diversify their client base and increase outreach. Participants expressed how they noticed that there was a greater demand for house cleaning jobs on non-Spanish platforms as there are fewer Latina house-cleaners posting here. For instance, P4 stated: "I feel that people have to fight more" referring to platforms such as Facebook where she finds many more cleaning jobs offered, and there is greater competition. In contrast, she believes that there is not as much competition in Canadian classifieds, as she points out that many of the Latina cleaners offering services on these platforms do not like to write in English:

"On Kijiji and Craigslist, which are Canadian platforms, you make a post and it doesn't receive as much attention because people don't want to post in English (edit) [...] you have to take a risk because if you don't, I won't leave the Latina part [of the labour market] and I'll have fewer clients. Fewer opportunities, they pay me less" (P1).

Thus, language is a critical factor influencing the selection and navigation of digital platforms by cleaners, significantly impacting their ability to expand or restrict their job search and procurement efforts, as well as communicate with clients.

4.2.2 Identity. The second factor that influenced participants' choice of digital platforms was their shared identity with other house-cleaners. Cleaners shared information with others based on perceptions of similarity and group belonging. Participants actively used Facebook groups, sharing details about jobs, immigration assistance, and cultural events in the Latino community.

For instance, P8 discussed how she selects Facebook groups: "I just write in the search engine Mexicans in Toronto and you get Facebook and it scrolls through various types of Latino groups or I even look for Colombians, and Venezuelans in Toronto". P8's process shows how Facebook groups are often defined by country of origin. P16 commented on how she is part of a Chilean community to share and look for information: "[I look for] the sale of things, items such as food that I have not found here, that some people bring from Chile [...] for festivals or things like that". In the Chilean groups, she found valuable information about practices, activities, and experiences that strengthen her connection to her community.

Although shared national identity is an important factor in the groups that cleaners choose to join, they shared how they explored many Toronto-based groups from different Latin American countries to find the best job opportunities. As P4 shared:

"Besides, there is also demand and supply on Facebook. Suddenly I started to read and get to know the Mexican [community] in Toronto, which is where [cleaning jobs] move the most because there is a lot. Then say I'm looking for a job [...] [and] I know that the supply is not very good [...] I compare [the supply and demand for cleaning jobs] with Latinos, and Chileans in Toronto." -P4

Group identity serves as a way for cleaners to assess the local cleaning market and cultivate a trusting, culturally similar clientele. Participants, however, also observed disparities among regional groups. These groups differed not only based on countries, but also from within each country, with distinct dynamics forming across digital platforms. These disparities are exemplified in P17's response when questioned about their preferred Facebook groups: "Some are [...] more commercial or for example, Veracruzanos in Toronto. There are a lot of people who sell there, so they don't comment so much". Thus P17 differentiates these groups based on online activities and community goals. He prefers "Veracruzanos in Toronto", because he finds more posts for cleaning jobs. Other groups offer immigration support to the community such as a Facebook group for Mexicans.

Most cleaners embrace these group identities across digital platforms, specifically ADMs. For example, they recognise the importance of belonging to a specific community, which determines their access to online classifieds such as the Hispanic *Compra y Venta*. This "Hispanics only" website shows the crucial role of shared identity and group affiliation in shaping cleaners' choice of digital platforms. These platforms thus facilitate interactions, relationships, and employment opportunities, and can also impose limitations for group membership such as house-cleaners who are not Hispanic.

4.3 Navigating Digital Platforms

Platform features that facilitate social interaction are one of the relevant factors influencing cleaners' platform choices for work. Accordingly, cleaners expressed differentiated preferences based on collective and individual experiences enabled by platform features. Specifically, collective experiences refer to the interaction and communication with clients, as well as the ability to receive assistance from one another within a shared community and identity. Individual experiences are associated with the cleaners' personal strategies they display on the platforms they use, such as shaping their profile or applying filters to secure clients.

About collective experiences, cleaners frequently expressed their preference for platforms such as Facebook due to the ease of establishing connections and forming networks in the Latino community. As mentioned above, these networks are built on a shared identity and are an important support network for Latina house-cleaners. P4 mentioned: "The Facebook group worked a lot [...] Our network of contacts was very strong, very strong, [...] but only through Facebook". She notes that Facebook is a functional platform for her search and connection with contacts due to her membership in different groups. The networked nature of job search on Facebook also allows cleaners to feel more confident about the people they agree to take on as clients. Cleaners can use "parámetros sociales" or social parameters, i.e., the ability to interact and relate to different people in a market to assess upcoming cleaning services and clients. To do this, cleaners evaluate comments under work posts to see if there are any complaints or signs of past abuses. Participants also post their own experiences to help others verify whether the client is reliable and trustworthy. As P18 expressed: "I guide myself by the comments. For example, if he has 20 comments badmouthing that person, I don't write to him and obviously, I don't trust him, I don't go with him".

On the other hand, participants emphasised the importance of being able to interact with both potential clients and cleaners who have past experience working with clients. The cleaning community on these social media groups can therefore self-monitor and offer mutual knowledge

exchanges to avoid negative client experiences. As the same participant (P18) shared: “I prefer Facebook. I just know that [...] in the worst-case scenario, you see the profile and you see the comments of the people below. For example, there was a person who was offering work on that page and all the comments said [...] don’t go with him because he doesn’t pay”.

Interactions with clients are also mediated by these features. For instance, when faced with a decrease in recurring clients, participants turned to classified sites to expand their clientele. P1 illustrates how her classified posts generate more clients: "By posting an ad on Kijiji or on Craigslist, already with a client or two, they spread the word of mouth" (P1). Digital platforms not only facilitate client acquisitions but also empower cleaners to manage the types of clients they engage with. Participants leverage digital platforms to exercise control over their client base in two ways: first, by implementing strategies to vet and filter clients, and second, by finding ways to enhance communication with clients. Given the informal and unregulated nature of cleaning work, cleaners must vet potential clients to avoid inappropriate or unsafe work situations. More information about clients allows cleaners to assess risk, as explained by P14: “I check the profile of the person who is publishing, and I also review their previous posts or their level of activity. If it is someone without a profile picture, without previous posts, and who provides minimal information, then I decline.”

In comparison with Facebook, cleaners note that classifieds do not have the same level of context to vet employees nor the social connections to report instances of client abuse. As P4 mentioned: "it’s that on Kijiji you don’t have a social parameter, there are only ads, right? And then I don’t know, I like it a lot. When I read the news, or see the forums that are there, I find out more things here. On Kijiji, I kind of see the ad, but no, I don’t see beyond the ad. The most I can do is watch the visits” (P4) Thus, participants prefer platforms that provide a sense of community and access to shared experiences.

Cleaners also used the features of digital platforms to facilitate interaction and communication with prospective clients, with many cleaners preferring social networks for client communication. Direct communication with clients was crucial for house-cleaners to establish clear agreements regarding cleaning services, scheduling, location, house size, number of rooms to clean, and so on. For example, on Facebook, some cleaners ensure their availability by engaging in direct messages with their clients and responding to client posts seeking services. As P15 stated: “I always write through internal chat, I never ask directly on the post. I believe that when someone makes a post, it’s better to use the internal chat instead of doing it like everyone else”. Others opt to directly comment on posts to express their availability and interest in the job. Facebook groups function as a means of communication that enable direct and diverse ways in which they can ensure cleaner-client contact. P18 shared his experience: “You see all the ads there. Then you start writing to them, they write back and you start communicating. Give me your phone number and where we meet; I need it to reach this address. But what I have done, I have used all social networks" -P18. This type of direct communication allows greater certainty that the cleaner has a job opportunity and helps them navigate competition with other cleaners.

Not all platforms enable this direct communication between cleaners and potential clients. In the case of Latino classifieds, communication is not direct, and cleaners must leave an ad for clients to contact them by phone. Some cleaners expressed discomfort with this type of communication, and preferred to use other platforms. For example, on *Compra y Venta* direct communication channels are limited; preventing fluid interaction between cleaners and clients. Social networks and classified sites played a crucial role for participants in shaping client interactions and communication. As some platforms lack user histories and direct communication channels, participants often prefer platforms that offer more autonomy and flexibility.

Related to the individual cleaners strategies, participants also used various methods to filter clients depending on the platform. For example, on Facebook, the cleaners scrutinised the client’s

profile, previous posts, job posts, salary offered and language proficiency as they considered these characteristics essential for evaluating job fairness. On classifieds, it was more complicated to vet clients since there are not always user profiles. To protect themselves, cleaners would go to other sites to find more information about potential clients. For example, P17 shared "I look them up, I Google them, I look them up on Facebook. I've put the phone number in Google to see if it's a scam" (P17).

In particular, some participants believed that classifieds such as *Compra y Venta*, despite having characteristics based on their group identity such as a common language, lacked sufficient means for cleaners to verify instances of abuse. This includes specific vulnerabilities faced by newly arrived immigrants, who may have access to this information but lack a mechanism for collaborative support. As P18 points out:

> I feel that the people who hire the people who are looking on this page know their situation (people who are without status and looking for cash-based jobs) [...], so they generally abuse, they abuse with the payments, or they pay them less or they take a long time to pay them. -P18

Participants' preference for specific digital platforms was shaped by the following reasons. Firstly, they preferred platforms that align with their shared identity, including language and ethnicity. Secondly, they trusted their community and value the social context that enables them to mitigate risks by filtering potential clients. Lastly, these platforms allowed them to deploy their search strategies and maintain control and organisation over their work.

4.4 Digital Impression Management

To sell their services online, participants engaged in various strategies to manage their digital personas as a form of digital impression management [41]. For example, they tried to communicate their professionalism in advertisements, highlighting traits such as their attention to detail, their cleaning experience, and trusted client testimonials. For instance, P14 shared the importance of building a good online profile: "once you have the experience and you start getting reviews and they say that you are good, [...] that you are reliable, all those things, you start to get a lot of requests for cleaning services." P14's observation suggests that creating strong online profiles is an important starting point for cleaners to mediate their work and represent their clients' perspectives.

In forming their online professional identities, participants employed strategies to craft a compelling profile for clients such as assessing market dynamics to determine what professional elements to include in their advertisements. For example, P18 described how she wrote her Kijiji ad: "I put [...] in English [...] experienced cleaner, housekeeping, over two years of experience in Airbnb cleaning" (P18). These expressions of professionalism also helped cleaners advocate for higher wages. For example, P1 described how she can charge more for kitchen cleaning due to "the high specialisation of the service". Tailoring cleaners' professionalism encompasses not just digital but also physical representations. For example, P15 stated how she was advised by her cleaner colleague to build a cleaning kit that she can bring when she cleans houses.

In their creation of online identities, some participants found that their Latino identity influenced employment availability. Some potential clients were specifically drawn to stereotypes about Latinos, as noted by P4: "people like Latin women to clean, I feel that they believe that we are more [...] detailed, cleaner and we have [a] culture to clean". Being part of the Latino community also afforded cleaners access to spaces where cleaning services were already being advertised and searched for, such as *Compra y Venta* and Latinos in Toronto. As a result, Latino identities helped participants find work in the cleaning sector, but also reinforced the stereotype that they are suited for cleaning labour, a systematically undervalued and under-compensated work sphere.

4.4.1 Role of Identity. Aligned with dominant gender stereotypes of household work [125], participants reported that the cleaning industry, and related domestic labour, is predominantly occupied by women. This trend was so strong that some Latina migrants could only access house-cleaning as a form of employment. As P7 noted:

> "that was the first time I came to Toronto that the [...] men have more opportunities to work because for men there is [...] gardening, farming, installation, making tents, sunstroke, many things, many more opportunities than for women [...] And for women there are very few [...] very few doors [...] cleaning, taking care of the elderly, taking care of children. Everything I found [...] But it's all cleaning" -P7.

This bias also has intersectional connotations that relate to both female and Latin-American identities, as P14 pointed out:

> "There is the stereotype that Latinos, women, come to clean up. Men come to work in construction. And from my own experience I've seen it too. Many of [...] my female friends work as cleaners and my male friends work in construction" -P14.

Presenting as Latina in the job market had positive and negative implications. On the one hand, impressions of Latina house-cleaners aligned with skilled cleaning abilities. As P19 notes: "Latinos are perceived as being more hardworking [...] I've heard like "oh you're Latina, oh you're stronger, I mean like labour-wise" (P19). Here P19 illustrates the perceived stereotypes of both women and Latinos. On the other hand, presenting as Latina also commonly resulted in lower salaries:

> "Sometimes it is good because they say, 'no, Mexican women know how to clean or are good moms,' but sometimes it plays [...] a bad trick because they offer you lower salaries than they offer to someone else. So it depends." - P5

Therefore, the intersectionality of identities, specifically, being an immigrant, a woman and Latina are associated with different levels of vulnerability that clients may take advantage of. Within this informal work, distinctive intricacies exist, producing a complex network of in-group labour relations along different identities within the Latino umbrella.

Gender stereotypes can also bar men from the cleaning sector. P16 described how "They discriminate against you sometimes for being men [...] They think that because you're a man you don't do things right" (P16). One male interviewee discussed relying on other identity factors to close the gap in preference for female house-cleaners: "I think that many people have been very good [...] in that aspect of accepting me and accepting the mere fact of being a man or being young." (P18). Although women find cleaning work more accessible, participants pointed out how gender dynamics shaped how they presented themselves on digital platforms and in offline spaces, alluding to the significance of their physical appearance and the expectation for women to fit a particular look defined by supervisors: "It's because they want women for the visual appeal of the job [...] the managers prefer a pretty woman there cleaning, to keep the tenants happy" (P17). Here P17 demonstrates how female beauty standards and expectations can dictate access to employment.

In their online impression management, some participants expressed vulnerabilities in presenting as Latino, and tried to alter their online presentation. For instance, P4 discussed how she mimicked an online ad she saw from a European cleaner. Analogous to the way cleaners attempt to present themselves as professionals in their posts, modelling their language after European house-cleaners was a way for cleaners to appear more appealing to potential clients and to negotiate higher wages.

Cleaners also sought out identity-specific spaces in social media platforms. On Facebook, cleaners joined groups such as "Chilenos en Canadá. Mexicanos en Toronto. Latinos en Toronto" (P18). Participants mentioned belonging to multiple groups beyond those aligned with their home countries. This behaviour highlights an interplay between Latino as a collective identity, individual countries

of origin, and the use of social media groups for job access. Posting in Latino-specific spaces created value for cleaners on multiple levels: "What I really like is that the ads are obviously in Spanish and are direct, so you understand them much better than English ads. And Latinos understand each other" (P11). Unlike gig work platforms that are job-specific, these social media spaces allowed cleaners to express their Latino identity and form a self-organised community of cleaners.

4.5 Communities of Support

Cleaners connected online and offline to form a community of support and information sharing. Participants discussed the connection between digital platforms and their adaptation to the Canadian context. Online groups specifically oriented towards Latino people were important for bonds of solidarity, and provided a space where cleaners could meet, find jobs, and share vital information about work. Most of these communities were on Facebook, and ranged from general Latinos identities to specific genders and ethnicities. For instance, P14 shares:

> "Here in Canada I discovered how wonderful it is: Latino groups in Toronto, Chileans in Toronto, Sororidad. There is a special group of Chilean women called "Sororidad chilena en Toronto" [...] So also the idea is to be supportive of your partner. They also give you information, they all tell you like no, don't go work in this place" (P14).

In these identity-specific spaces, house-cleaners provided collective support through information sharing, for example, information related to housecleaning, such as tips, products, and cleaning practices. Participants also discussed things like "how much each one is earning, the hours" (P1), comparing different cleaners' experiences against each other. Beyond discussions about the cleaning profession, these spaces also facilitated resource sharing about living in Toronto: "sometimes they ask for gynaecologists or for doctors or for recommendations of places, either to eat, to live, for anything" (P3). This information sharing highlights the multidimensional role that online communities played for cleaners during their migration and acculturation process.

Another way online communities supported migrant cleaners was through community-facilitated job opportunities. Most participants relied on referrals to get work from other house-cleaners, clients and so on. This system shows a unique sense of community solidarity as participants shared and received job opportunities from others online who in other contexts would be their job competitors. Some participants discussed offering their shifts to others when they could not attend themselves, and were open to the idea of the client deciding to only work with the new cleaner as a result: "We still help each other. Look, friend, you know I can't do it. And I send her a friend who already knows how she works and we are not selfish either"(P4).

Despite the wealth of resources provided in online communities, participants mentioned that there was not a specific online community for cleaners. Instead, Latino house-cleaners came together primarily in Latino-oriented digital spaces. Solidarity with other cleaners, however, existed on a level beyond the Latino identity, particularly in cases where Latino employers harmed Latino house-cleaners. Several participants identified Latino clients who would post scams on the Latinos focused Facebook groups, noting "it's annoying to see that there are people from Latin America that post jobs with very low pay, so like kind of seeing abuses knowing that that's not worth what it's worth"(P14). P14's experience exemplifies that not all members in the Latino community were in solidarity with the Latino house-cleaning community, and that the house-cleaning online community still needed to stand in solidarity across Latino spaces.

Aware of potential ways they could be exploited, participants described how the online Latino cleaning community was able to solidify itself through protective measures. Identifying abuse and scams was an important part of the information sharing that occurred on digital platforms. Cleaners mentioned relying on reports of safety issues and other client abuses: "They published on

Facebook that this person was scamming, that he was only taking people to work and in the end he didn't pay them, he disappeared." (P9)

Online communities were also spaces in which cleaners could stand up to extractive clients. Several participants mentioned job postings offering sub-standard hourly wages, prompting many to unite and denounce such exploitative practices. Since clients post publicly looking for cleaners, there were opportunities to collectively challenge abusive clients as a united front. P7 described 'burning' a client on Facebook after he would not pay her:

> "I knew his name, his phone number, and a photo and I burned him on Facebook. [...] This person doesn't pay and I told details and a stranger contacted me and said: "He didn't pay me either, let's join together against him". Then the guy contacted the guy and he told me, he said, he told me: "Take it off, take it off, take it off. I already paid you, but take it off." Then he said to me, "Put it down and I'll pay you. When the transfer comes, you take it down". And so that was so. He paid me."-P7

Community solidarity was especially visible for women-only groups. One such group, "Sororidad Chilena" (Chilean Sorority) was formed to provide support for migration, work processes and political mobilisation in Canada. P14 highlighted that this smaller Chilean group, in contrast to larger Latino groups, exhibits stronger solidarity and support, and experiences fewer instances of abuse. In this space, members share information about how to self-advocate, such as "information to obtain permanent residency" and "contact information of a human resources person"(P14). Other women-only groups mentioned included Mamás Latinas and more private WhatsApp groups.

Safety was of particular importance for female cleaners. Participants mentioned how clients would sometimes comment on their appearance or make sexual propositions. Latina cleaners recounted instances where men would write to them "they write to me like "you look very pretty" or things like that" (P3). Concerns about personal safety factored into women's choices of what communities to be part of: "I was contacted by a guy [...] who asked me [...] to give him sexual services in exchange for money. So, no, I didn't like that and that's why I almost didn't use Kijiji."(P3).

Digital marketplaces, such as *Compra y Venta*, limit the amount of personal information available to assess potential employers contacting cleaners for services. In contrast, on ADMs like Facebook, Latina cleaners relied on reports from other women to identify potentially dangerous clients. This disparity in available information underscores the significance of referrals from other members of the cleaning community for personal safety. As a result, independently employed cleaners can select which clients to engage with and depend on community support to safeguard their well-being by opting for clients recommended by others in the community.

Our findings thus highlight the variety of challenges faced by Latino house-cleaners in Toronto, the strategic use of ADMs to take control of their work, and the role of identity in navigating digital labour economies. In the next section, we discuss how these findings contribute to HCI and CSCW and offer recommendations to researchers.

5 Discussion

Informal work is often associated with flexibility because workers are not bound by contracts or rigid bureaucratic rules. As a result, it offers a certain degree of autonomy to marginalised communities around the world in some contexts. This is especially true for migrant workers, who often have a contentious relationship with local bureaucracies. On the other hand, the absence of state protection in informal work presents challenges related to fair working conditions and possible exploitation. Moreover, intermediaries, such as agencies and digital labour platforms, have been able to exploit the flexibility inherent to informal work to economically benefit while workers continue to face precarity [17, 20, 121].

Our findings indicate that interviewed house-cleaners sought out asynchronous digital marketplaces (ADMs) such as online classifieds and Facebook groups. These platforms enabled them to work independently and with increased flexibility in their work practices. In contrast to placement agencies and mainstream on-demand digital labour platforms (DLPs) that often operate under a market logic that imposes control systems and surveillance for profit-making [8, 99], ADMs enable cleaners to leverage strategies similar to those who are self-employed and exert greater control over their work [6]. These strategies include setting their own rules, determining wages, deciding the services they offer, and selecting locations.

DLPs often enforce rigid terms and commodify services, increasing job precarity and undermining long-term earnings [40, 66, 139]. DLPs also reduce autonomy through persistent worker monitoring [131]. While ADMs are also involved in this process of commodifying care and domestic work services, cleaners using ADMs try to resist the shift to 'capitalist service labour' marked "on the demand side by the scarcity of time" [56] by controlling their work environment and resisting reductions in job quality and autonomy. They thus actively resist intermediaries that limit worker control over pricing arrangements and task allocation and choose not to engage with DLPs at all because ADMs already afforded them the job conditions they preferred and they had very little incentive to switch.

Despite autonomy and control, cleaners still faced online and offline risks, such as exposure to client abuse and exploitation. In the absence of state regulation or protective mechanisms, cleaners relied on community feedback to make sense of these informal spaces and protect themselves; community spaces such as Facebook groups (including women-only Latina groups) showed the collective ways in which cleaners navigate both social and economic life.

This paper contributes to the field of HCI and CSCW research on tech-mediated labour by examining how ADMs shape the autonomy of workers and the interplay between identity—individual and group—and individual work strategies and experiences within domestic labour markets. Moreover, it emphasises the importance for CSCW researchers to take into account group identity, such as gender and ethnic identity, to support collective action and solidarity. In addition, the paper explores avenues for CSCW researchers to support community regulation, promote the creation of safe spaces, and reduce the burden of invisible labour carried by marginalised identities.

5.1 Autonomy, Control, and Flexibility through ADMs

HCI and CSCW literature has extensively engaged with the "discourse of autonomy" [113] in online labour markets by assessing what kinds of flexibility are offered by digital labour platforms to workers, while also critiquing how they reduce worker agency in a variety of ways [132]. Similar concerns exist with respect to offline intermediaries such as agencies, which, although they allow immigrant workers to circumvent bureaucratic hurdles, also impose unfair control over workers in terms of wages, work practices, and schedules, and as we see in this paper, being assured stable long-term employment is contingent on finding the right agency. In our research, we show how cleaners choose ADMs over intermediaries to have more control over finding work, managing their communication with clients, choosing their working conditions, and, more importantly, having a community of support.

This paper highlights how ADMs shape worker autonomy, reiterating recent arguments made about the future of digital labour and the increasing emphasis on worker freedom and autonomy. Popular DLPs in economies around the world have pushed forward the economic imaginary of flexibility and freedom and "deployed [gig work] through a technology of competition and surveillance" [113]. In response to these developments, researchers have raised concerns about the negative impacts on workers, particularly in terms of increasing individual risks and the erosion of worker solidarity. ADMs, in contrast, provide autonomy that is enabled by the presence of a

community of peers that look out for each other and provide an alternative reimagination of a digital economy that is potentially community-driven. While still a market of supply and demand, the market is embedded in existing social institutions: the profession is sustained by a community of peers who share information with each other, provide word-of-mouth referrals, and collaborate to ensure safe working conditions.

The distinction between formal and informal work has often been framed around visibility/invisibility and predictability/unpredictability, especially in the context of work practices on digital labour platforms [17]. Our paper shows immigrant house cleaners prioritise their invisibility from the state by choosing to find work through ADMs, reflecting historical trends in immigrant labour markets where work is often found through informal channels away from regulation and bureaucracy. Although unpredictability and related vulnerabilities persist and reproduce labour precarity with respect to employment security, there are constant attempts to mitigate them. ADMs offer cleaners greater control and flexibility by allowing them to craft their professional profiles, manage their digital impressions, and directly communicate with clients. Importantly, irrespective of their use of online classifieds, all participants used identity-specific Facebook groups, which functioned as social-institutional means by which the informal market of domestic cleaning is regulated among Latino cleaners. These groups serve as an important means by which users reduce risk and uncertainty by creating and leveraging these community networks.

5.2 Individual Identity and How it Shapes Worker Strategies

Identity serves a pivotal role in understanding how immigrant workers, who often find themselves in precarious and invisible jobs, navigate their socioeconomic lives. Identity markers such as nationality, ethnicity, and gender serve as key determinants of what labour markets a worker has access to and their livelihood opportunities. We find that the intersectional identity of presenting as a Latina woman presented both benefits and challenges, and directly impacted how house-cleaners constructed their online personas and identities. Reiterating previous CSCW literature [85] on the importance of self-presentation, we find that workers highlight their professionalism to help them in their search for jobs and negotiations with potential clients.

However, importantly, house-cleaners also strategically leveraged their identities to create profiles and manage their digital impression, aiming to gain more visibility in domestic cleaning labour markets. Participants would often choose to embrace certain stereotypes that would benefit their job search. For instance, as female house-cleaners are often associated with being more detail-oriented, some participants emphasised this gender stereotype in their profiles and advertisements. On the other hand, female participants expressed how men would reach out to them on social media in inappropriate ways. Unlike Latina house-cleaners, male cleaners expressed how their male stereotypes worked to their disadvantage as men are not known for domestic cleaning.

Ethnicity also influenced house-cleaners' capacity to navigate asynchronous digital marketplaces. Participants shared that their Latin American identity could play in favour or against them in their job search, as they crafted their professional image. In some cases, they leveraged intersectional stereotypes associated with their identity as a Latina woman, such as being clean, meticulous, detail-orientated, and hard-working, in both online and offline spaces, in order to enhance their job prospects. Nevertheless, some of them choose to downplay their Latino identity, because they were offered lower wages and lost clients as some clients assumed that Spanish was the only language they spoke, thereby limiting opportunities. Instead, they would then often align themselves with other ethnic identities - such as "European" - considered as more favourable to clients.

Furthermore, participants classified, evaluated, and eliminated customers based on potential clients' social media profiles. This evaluation process highlights the reciprocal relationship that digital impression management holds in asynchronous digital marketplaces for house-cleaners:

they regulate their own brand representations to be perceived as more professionally desirable while simultaneously vetting the quality and reliability of potential clients through evaluating their online presence.

This paper extends HCI and CSCW scholarship by elaborating on the connection between intersectional identities and digital impression management strategies in digital spaces. Recognising these dynamics provides insights for designing more equitable and inclusive digital labour platforms that are more accommodating of the diverse identities and experiences of workers, and cognizant of how these identities restrict or open spaces - both offline and online - where workers can participate. The concept of strategic identity presentation is particularly important, as workers have to lean into historical stereotypes to gain visibility in labour markets. There is also a need to recognise the dyadic nature of aysnchronous digital marketplaces, wherein workers not only curate their online identities to be more appealing, but also assess the reliability of potential clients' based on their online identities. In contrast to on-demand DLPs, this offers a certain degree of empowerment, albeit with additional labour - labour that, as we discuss in the next section, is often shared within the worker community.

5.3 Group Identity and Collective Action

Historically, informal labour markets, especially those that involve migrant workers, are shaped by the politics of individual and group identity. Shared group identity may take the form of ethnic ties, language, shared work experiences, and skills (e.g., house cleaning). These shared identities influence the quality and types of work immigrant workers have access to [90]. This phenomenon is exemplified in the association between Latino immigrant workers, mostly women, and domestic work such as house-cleaning [73, 83]. This association reinforces Latina immigrants' labour trajectory towards domestic work. While group stereotypes may be disadvantageous in fortifying undervalued employment pathways, shared group identities support shared practices, social norms, and collective sense-making of labour markets.

Ethnicity, nationality, gender, and shared work experiences all strengthened participants' engagement and solidarity together, and shaped cleaners' collective organisation, particularly online. These shared experiences of collective engagement and solidarity differentiate these Latino cleaners from how gig work is often understood in HCI and CSCW scholarship, where gig work and working on DLPs isolates and individualises workers, disregarding social relationships and collective identities [43]. This study helps to extend the purview of HCI and CSCW on technology-mediated labour by illustrating the role of broader group identities and collective action in navigating labour markets and shaping work practices.

By examining cleaning work mediated by technology beyond digital labour platforms, we explore how ethnic and linguistic identities shape labour markets, even in digital spaces. Here, the shared group identity of being Latino contributes to the formation of informal online community spaces, such as Facebook groups, which house-cleaners leverage to navigate local labour markets. These informal digital spaces are a direct consequence of how economic life is embedded within networks of social relations [44]. For minority immigrant communities that are not supported by or mistrust bureaucracies, these spaces are built upon network capital, which is the "capacity to engender and sustain social relationships with those people who are not necessarily proximate and that generates emotional, financial, and practical benefit" [130]. Network capital is not confined to a single location but "stretches out geographically and socially [130]," and exploitation is a consequence of low network capital. To understand the role of the collective in immigrant workers' labour practices, we need to study how workers create, sustain, grow, and leverage network capital.

5.3.1 Facilitating Collective Organisation of Informal Housework. Understanding the interplay between technology-mediated labour and collective action in the cleaning industry requires further investigation by CSCW researchers and practitioners. Latino house-cleaners, like most domestic workers, are enmeshed in power asymmetries inherent to gendered migrant work. This work is performed in cities around the world but is regarded "as inferior work, emptied of social and cultural value" [102]. Consequently, collective action serves not only as a pathway to economic empowerment and prevention of exploitation but also as a pursuit of dignity and recognition. Globally, domestic workers have been mobilising to fight for their recognition and rights [55, 88], actively seeking ways to organise collectively in the face of economic, political and legal challenges.

While trade unions have played an important role in mobilising migrant domestic workers, they have historically been male dominated and have faced difficulties accommodating domestic workers operating outside the formal economy [92]. This has led to the emergence of non-union organising that has challenged existing formal labour structures and attempted to include marginalised informal workers, especially women. These grassroots movements have also contributed to global movements of resistance and solidarity [19], part of what is referred to as "globalisation from below [22]", where women-led domestic worker organisations have come together to create transregional and transnational networks and federations (such as the International Domestic Worker Federation [IDWF]). These solidarity networks are important considering the cross-border movement of migrant workers, although they are subject to contestations due to differences at the local levels [69]. Another tension that exists has been the focus of traditional labour movements on class and gender, overlooking the dimensions of ethnicity, nationality, and other identities that shape network capital.

The entry of DLPs has complicated these dynamics - as research has indicated [23], digital workers are atomised through short job contracts and socio-geographic separation, thus obstructing attempts at solidarity building. Thus, rather than importing structures from traditional labour movements, there is a possibility of thinking about how these self-formed safe spaces as digital enclaves [117] formed around shared identities (e.g. Latino, women, etc.) and perspectives (e.g. house cleaning, domestic work, etc.) can be leveraged. Our study showed how these spaces seek to visibilise the problems faced by cleaners (for e.g. problematic clients) and recognise the skilled nature of their work through knowledge exchanges.

We further extend a transnational [114] perspective to better understand how HCI and CSCW researchers can support the organising efforts of migrant domestic workers and create spaces of labour solidarity through technologies. Such a perspective will support experiences of mobility [2] workers as they move to new labour economies and the role design and technologies can play in reshaping power relationships and achieving "mobility justice" [112]. To understand existing power geometries and how they shapes everyday work practices, CSCW researchers must look at the creation of these enclave spaces that are a result of domestic workers navigating various boundaries: those demarcating nation-states, the formal and informal, domestic and public, among others. Technologies play an important role in facilitating the negotiation of these boundaries, aiding in boundary crossing, and occasionally eroding boundaries, but at other times, also reifying these boundaries. The ability of workers to cross boundaries and participate in a networked society [24] depends on their network capital which influences their ability to access information, resources, and social support. Prior research has shown that ethnic enclaves are key to immigrant workers coping in new economies [12], and at its core, CSCW research must acknowledge and work with the shared identities that already exist among workers and are actively being leveraged by them to self-organise and collaborate.

5.4 Community Maintenance: Safety and Boundaries

The reliance on digital spaces, particularly those rooted in shared Latino identity, highlights both the benefits and challenges of operating within ethnic-specific spaces. Prior studies, such as Masuoka's evaluation of Latino group consciousness [78], have demonstrated how minority immigrants' language needs and shared experiences lead to the construction of such pan-ethnic engagement and group identification. Our study reaffirms the role of language and shared immigrant experiences in constructing the fluid, pan-ethnic boundaries of online Latino communities. However, drawbacks included some Latino clients offering jobs below average salary rates and mistreating cleaners. Participants were frustrated and disappointed with this behaviour, as it worked against the safety and well-being of the larger Latino community. House cleaners noted that these employers exploited the cleaners' preference for Spanish-speaking, cash-based jobs. In particular, participants identified *Compra y Venta* as an online space that often contained exploitative job postings. Although Facebook groups exhibited similar identity-based vulnerabilities, they were mitigated through mutual community support, where members could report abusive working conditions and build solidarity based on community ties and their entrepreneurial identities.

In this case, participants specifically relied on other Latino cleaners (mostly women) for mutual support and information sharing, even creating women-only Latino groups (or "Sororidades/sororities"). These sororities were especially important in helping cleaners avoid gender-based abuse, and their presence highlights a dialectic of commonality and difference that is key to feminist solidarity [63]. The "porous boundaries" [29] between these Facebook group sororities and the ethnic-based spaces that they are contained within, where the community members regulate and control flows of information and people, highlight the labour involved in maintaining boundaries between social worlds, and creating safe spaces of solidarity for multiply marginalised identities. In the absence of state support, these systems and spaces of solidarity become even more crucial, and we need to acknowledge the invisible care labour that house-cleaners voluntarily take out of necessity. Designing more inclusive and supportive digital labour platforms must consider the significant role that this labour plays and explore ways to support it (and potentially reducing the labour)

5.5 Recommendations for Supporting Immigrant Domestic workers

In informal economies, invisibility from intermediary actors such as the state, employment agencies and so on, can be a desirable outcome for workers such as migrants who may not hold the necessary statuses or documentation to work where they are living. Many participants shared how they wished to continue informal domestic labour over more structured work organised through agencies as the informality enabled them to maintain more control and flexibility over their hours, type of work and client base. The community-based tactics for managing safe work and equitable boundaries in informal housecleaning not only demonstrate the necessity for careful balance in CSCW design of identity-based spaces but also reflect principles akin to asset-based community development [135]. This approach emphasises harnessing local assets, such as the shared experiences and mutual support networks of house cleaners, to reinforce community ties and empower members. The need for house cleaners to mitigate ethnic and gender-based exploitation highlights the importance of making their communication and resources visible within online communities while managing the visibility these spaces have to potential clients. To maintain the effectiveness of these bottom-up digital community spaces for care work, it is crucial that they remain inclusive of new members who would benefit from joining, thereby ensuring the safety and strengthening of the existing community.

The dichotomy of invisibility and visibility has long been a concern of the CSCW community [119]. In labour markets, CSCW scholars have sought to visibilise unrecognised and often uncompensated labour [45, 49, 128]. Informal economies, however, which intentionally operate outside of state regulations, do not readily fit with these missions for exposure and visibilisation as invisibility is a desirable state to maintain. Particularly in the case of Global South workers, we must question who exactly making 'visible' is for and why. Understanding how contestations of power shape the visibility/invisiblity of work practices is crucial as we consider questions of equity [26]. As Raval argues in her article problematicizing the role of exposure in digital gig work: "The tactic of visibilisation reaches its limits in the Global South; simply exposing working conditions has historically had very little effect on transforming the material realities of Global South workers." [97]. Rather than seeking to reveal domestic and other informal work to sympathetic Global North actors, Raval encourages CSCW researchers and practitioners to support models, communities, and solidarity networks that already exist virtually and on the ground.

Prior research [46] has studied the risks faced by undocumented immigrants in using digital technologies, highlighting the important role that services such as Facebook play in shaping these vulnerabilities. The reliance of workers on corporate-controlled spaces such as Facebook to navigate labour markets raises critical questions for researchers who are committed to critiquing and contesting political and economic power in digital labour economies and how to better support vulnerable workers. Similarly, these concerns echo in the vulnerabilities associated with precarious working conditions perpetuated by digital labour platforms (e.g. Uber), which employ extensive monitoring, surveillance, and discipline systems that commodify and exploit workers as profit-seekers [13, 48].

We thus encourage CSCW researchers and practitioners to create and support "locally appropriate self-governing collaborative" [26] spaces that prioritise organic community regulation and focus on creating safe spaces that take into account local power geometries shaped by race, gender, and immigration status, and in the process reduce the burden of invisible labour carried by marginalised identities without exposing them in undesirable ways.

We offer the following recommendations to CSCW researchers that may benefit not just house cleaners but other vulnerable immigrant worker communities. Specifically, we argue for how researchers might support the design of platforms and platform features that facilitate the creation of safe spaces for information exchange and enclave deliberation, and support community organising and empowerment.

5.5.1 Porous boundaries and unidirectional visibility. Digital labour markets continue to be shaped by racial, gendered, and immigrant identities, and enclaves (including digital enclaves) offer valuable support for marginalised identities in navigating these markets. For multiply marginalised identities, this manifests as enclaves hierarchically embedded within other larger communities (for example, Latino women house cleaners within the Latinx community). Platforms must facilitate the creation and maintenance of porous boundaries that allow the selective sharing of information based on existing power geometries, for example, allowing other workers to know each other's identities or allowing workers to self-select into identity groups, but disallowing others (for ex., clients) from seeing the identity of workers.

5.5.2 Acknowledging and leveraging Group Identity in Design. In line with the above, researchers must be nuanced about how group identities shape digital labour markets, from facilitating spaces of empowerment to being potential avenues of exploitation and abuse. Given this, how can existing group identities be leveraged to facilitate strategies of community-based risk mitigation? Taking a transnational lens to design also means finding ways that platforms can help redistribute and

grow network capital to achieve mobility justice [112] for those crossing borders and facilitating intra-community support.

5.5.3 Supporting information exchange. Finally, information exchange, from knowing what the minimum wage was to getting cleaning tips to abusive client's identities, was vital for our participants to safely and efficiently navigate informal labour markets. Designing platform features that facilitate this knowledge sharing is important to reduce the job search labour that is inherent to informal markets. Features could include highlighting new information or enabling archiving and efficiently searching for information. Such supports could also help preserve group knowledge and support enclave deliberations, potentially facilitating collective action in the long run.

6 Conclusion

In this paper, we examined the experience of Latino house-cleaners in Toronto within technology-mediated labour markets. Latino house-cleaners demonstrate agency in claiming control over their work and enjoy flexibility in managing their work routines, without surveillance and control from intermediaries. However, they face the challenges of precarity and exploitation inherent in informal work. House-cleaners used a variety of asynchronous digital marketplaces (ADMs), including classifieds and social media spaces. We found that individual and group identity - such as ethnicity, language, and gender - plays a vital role in shaping how house-cleaners navigate these digital spaces and their strategies of digital impression management. This study contributes to broadening the scope of HCI and CSCW on technology-mediated work by emphasising the intersectionality of identities and its influence on worker strategies and collective action. We further highlight the labour that supports community regulation, maintains porous boundaries, and fosters the creation of *sororidades* (sororities) within ethnic-based spaces. Finally, we argue for the design of platform features that can help in the creation of safe spaces through allowing selective visibility, redistribute and grow network capital, and facilitate information exchange and enclave deliberation. This approach has the potential to further support community organising and empowerment in relation to vulnerable immigrant workers such as house cleaners.

Future work will focus on participatory design workshops with vulnerable immigrant worker communities, such as our participants, to reimagine the design of digital platforms that can facilitate economic interactions. We will also explore the potential for fostering broader transregional solidarity networks among various ethnic groups and different types of domestic labour. Additionally, we will investigate how domestic workers such as house-cleaners, interact with other technologies that shape their work practices, especially surveillance technologies, and how they navigate the boundaries between domestic spaces and the public sphere.

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References

[1] Sara Ahmed. 2004. Affective economies. *Social text* 22, 2 (2004), 117–139.

[2] Syed Ishtiaque Ahmed, Nusrat Jahan Mim, and Steven J Jackson. 2015. Residual mobilities: infrastructural displacement and post-colonial computing in Bangladesh. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*. 437–446.

[3] Wael Albayaydh and Ivan Flechais. 2023. Examining power dynamics and user privacy in smart technology use among jordanian households. In *32nd USENIX Security Symposium (USENIX Security 23)*. 4643–4659.

[4] María Belén Albornoz and Henry Chavez. 2023. Disguising exploitation. Immigrants in the ecuadorian gig economy. *Trilogía: Ciencia Tecnología Sociedad* 15, 30 (2023), 5.

[5] Sophie Alkhaled. 2021. Women's entrepreneurship in Saudi Arabia: Feminist solidarity and political activism in disguise? *Gender, Work & Organization* 28, 3 (2021), 950–972.

[6] Juan Carlos Alvarez De La Vega, Marta E Cecchinato, and John Rooksby. 2022. Design Opportunities for Freelancing Platforms: Online Freelancers' Views on a Worker-Centred Design Fiction. In *2022 Symposium on Human-Computer Interaction for Work*. 1–19.

[7] Bridget Anderson. 2006. Doing the dirty work?: The global politics of domestic labour. In *Global dimensions of gender and carework*, Mary K Zimmerman, Jacquelyn S Litt, and Christine E Bose (Eds.). Stanford University Press, Chapter 18, 226–237.

[8] Ira Anjali Anwar, Joyojeet Pal, and Julie Hui. 2021. Watched, but moving: Platformization of beauty work and its gendered mechanisms of control. *Proceedings of the ACM on Human-Computer Interaction* 4, CSCW3 (2021), 1–20.

[9] Seyram Avle, Julie Hui, Silvia Lindtner, and Tawanna Dillahunt. 2019. Additional labors of the entrepreneurial self. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (2019), 1–24.

[10] Abigail Bess Bakan, Daiva Stasiulis, and Daiva K Stasiulis. 1997. *Not one of the family: Foreign domestic workers in Canada*. University of Toronto Press.

[11] Abigail B Bakan and Daiva K Stasiulis. 1995. Making the match: Domestic placement agencies and the racialization of women's household work. *Signs: Journal of Women in Culture and Society* 20, 2 (1995), 303–335.

[12] Michele Barnes-Mauthe, Steven Allen Gray, Shawn Arita, John Lynham, and PingSun Leung. 2015. What determines social capital in a social–ecological system? Insights from a network perspective. *Environmental management* 55, 2 (2015), 392–410.

[13] Arianne Renan Barzilay and Anat Ben-David. 2016. Platform inequality: Gender in the gig-economy. *Seton Hall L. Rev.* 47 (2016), 393.

[14] Elisabetta Basile and Barbara Harriss-White. 2010. India's informal capitalism and its regulation. *International Review of Sociology* 20, 3 (2010).

[15] Julia Bernd, Ruba Abu-Salma, Junghyun Choy, and Alisa Frik. 2022. Balancing power dynamics in smart homes: nannies' perspectives on how cameras reflect and affect relationships. In *Eighteenth Symposium on Usable Privacy and Security (SOUPS 2022)*. 687–706.

[16] Julia Bernd, Ruba Abu-Salma, and Alisa Frik. 2020. {Bystanders'} Privacy: The Perspectives of Nannies on Smart Home Surveillance. In *10th USENIX Workshop on Free and Open Communications on the Internet (FOCI 20)*.

[17] Alessio Bertolini, Mark Graham, Mounika Neerukonda, Sanna Ojanperä, Balaji Parthasarathy, Janaki Srinivasan, Pradyumna Taduri, and Funda Ustek-Spilda. 2023. Platformizing Informality, One Gig at a Time. In *Platformization and Informality: Pathways of Change, Alteration, and Transformation*. Springer, 13–45.

[18] Dottie Blyth. 2019. Self-Branding Practices of Digital Workers in a Resurging Gig Economy. (2019).

[19] Eileen Boris and Jennifer N Fish. 2014. Domestic workers go global: The birth of the international domestic workers federation. In *New Labor Forum*, Vol. 23. SAGE Publications Sage CA: Los Angeles, CA, 76–81.

[20] Ruy Braga and Douglas Silva. 2022. Work Platforms, Informality and Forms of Resistance: The Case of On-Demand Workers in the City of São Paulo. In *The Representation of Workers in the Digital Era: Organizing a Heterogeneous Workforce*. Springer, 113–135.

[21] Virginia Braun and Victoria Clarke. 2006. Using thematic analysis in psychology. *Qualitative research in psychology* 3, 2 (2006), 77–101.

[22] Jeremy Brecher, Tim Costello, and Brendan Smith. 2000. *Globalization from below: The power of solidarity*. South End Press.

[23] Damion Jonathan Bunders. 2021. *Gigs of their own: Reinventing worker cooperativism in the platform economy and its implications for collective action*. Edward Elgar Publishing.

[24] Manuel Castells. 1996. *Rise of the network society: The information age: Economy, society and culture*. Blackwell Publishers, Inc.

[25] Jason Chan and Jing Wang. 2018. Hiring preferences in online labor markets: Evidence of a female hiring bias. *Management Science* 64, 7 (2018), 2973–2994.

[26] Priyank Chandra. 2017. Informality and invisibility: Traditional technologies as tools for collaboration in an informal market. In *Proceedings of the 2017 chi conference on human factors in computing systems*. 4765–4775.

[27] Priyank Chandra, Syed Ishtiaque Ahmed, and Joyojeet Pal. 2017. Market practices and the bazaar: Technology consumption in ICT markets in the global south. In *Proceedings of the 2017 CHI conference on human factors in computing systems*. 4741–4752.

[28] Shuo Chang, Vikas Kumar, Eric Gilbert, and Loren G Terveen. 2014. Specialization, homophily, and gender in a social curation site: Findings from Pinterest. In *Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing*. 674–686.

[29] EunJeong Cheon and Norman Makoto Su. 2018. 'Staged for Living' Negotiating Objects and their Values over a Porous Boundary. *Proceedings of the ACM on Human-Computer Interaction* 2, CSCW (2018), 1–24.

[30] Brendan Churchill and Lyn Craig. 2019. Gender in the gig economy: Men and women using digital platforms to secure work in Australia. *Journal of Sociology* 55, 4 (2019), 741–761.

[31] John W Creswell and J David Creswell. 2017. *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

[32] Samantha Dalal, Ngan Chiem, Nikoo Karbassi, Yuhan Liu, and Andrés Monroy-Hernández. 2023. Understanding Human Intervention in the Platform Economy: A case study of an indie food delivery service. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. 1–16.

[33] Dipsita Dhar and Ashique Ali Thuppilikkat. 2022. Gendered labour's positions of vulnerabilities in digital labour platforms and strategies of resistance: a case study of women workers' struggle in Urban Company, New Delhi. *Gender & Development* 30, 3 (Sept. 2022), 667–686. https://doi.org/10.1080/13552074.2022.2127574

[34] Hamid Ekbia and Bonnie Nardi. 2014. Heteromation and its (dis) contents: The invisible division of labor between humans and machines. *First Monday* (2014).

[35] Hayley I Evans, Marisol Wong-Villacres, Daniel Castro, Eric Gilbert, Rosa I Arriaga, Michaelanne Dye, and Amy Bruckman. 2018. Facebook in Venezuela: understanding solidarity economies in low-trust environments. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. 1–12.

[36] Patricia Fernández-Kelly and Jon Shefner. 2006. *Out of the shadows: political action and the informal economy in Latin America*. Penn State Press.

[37] Eureka Foong. 2020. Understanding and designing sociotechnical systems to support the impression management practices of online freelance workers. In *Companion Proceedings of the 2020 ACM International Conference on Supporting Group Work*. 25–33.

[38] Guruprasad Gadgil, Victor Prybutok, Gayle Prybutok, and Daniel Peak. 2017. Investigating trust in information and impression management of students on Facebook. In *Proceedings of the 18th Annual International Conference on Digital Government Research*. 195–201.

[39] Dalia Gebrial. 2022. Racial platform capitalism: Empire, migration and the making of Uber in London. *Environment and Planning A: Economy and Space* (2022), 0308518X221115439.

[40] Mareike Glöss, Moira McGregor, and Barry Brown. 2016. Designing for labour: uber and the on-demand mobile workforce. In *Proceedings of the 2016 CHI conference on human factors in computing systems*. 1632–1643.

[41] Erving Goffman et al. 2002. The presentation of self in everyday life. 1959. *Garden City, NY* 259 (2002).

[42] Mark Graham, Isis Hjorth, and Vili Lehdonvirta. 2017. Digital labour and development: impacts of global digital labour platforms and the gig economy on worker livelihoods. *Transfer: European review of labour and research* 23, 2 (2017), 135–162.

[43] Mark Graham, Vili Lehdonvirta, Alex Wood, Helena Barnard, Isis Hjorth, and Peter D Simon. 2017. The risks and rewards of online gig work at the global margins. *Oxford Internet Institute* (2017).

[44] Mark Granovetter. 1985. Economic action and social structure: The problem of embeddedness. *American journal of sociology* 91, 3 (1985), 481–510.

[45] Mary L Gray and Siddharth Suri. 2019. *Ghost work: How to stop Silicon Valley from building a new global underclass*. Eamon Dolan Books.

[46] Tamy Guberek, Allison McDonald, Sylvia Simioni, Abraham H Mhaidli, Kentaro Toyama, and Florian Schaub. 2018. Keeping a low profile? Technology, risk and privacy among undocumented immigrants. In *Proceedings of the 2018 CHI conference on human factors in computing systems*. 1–15.

[47] Encarnacion Gutierrez-Rodriguez. 2014. Domestic work–affective labor: On feminization and the coloniality of labor. In *Women's Studies International Forum*, Vol. 46. Elsevier, 45–53.

[48] Anikó Hannák, Claudia Wagner, David Garcia, Alan Mislove, Markus Strohmaier, and Christo Wilson. 2017. Bias in online freelance marketplaces: Evidence from taskrabbit and fiverr. In *Proceedings of the 2017 ACM conference on computer supported cooperative work and social computing*. 1914–1933.

[49] Benjamin V Hanrahan, Jutta K Willamowski, Saiganesh Swaminathan, and David B Martin. 2015. TurkBench: Rendering the market for Turkers. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*. 1613–1616.

[50] Andrew Gary Darwin Holmes. 2020. Researcher Positionality–A Consideration of Its Influence and Place in Qualitative Research–A New Researcher Guide. *Shanlax International Journal of Education* 8, 4 (2020), 1–10.

[51] Pierrette Hondagneu-Sotelo. 2007. *Doméstica: Immigrant workers cleaning and caring in the shadows of affluence, with a new preface*. Univ of California Press.

[52] Joey Chiao-Yin Hsiao, Sylvia Darling, and Tawanna R Dillahunt. 2023. How Recent Migrants Develop Trust Through Community Commerce: The Emergence of Sociotechnical Adaptation. *Proceedings of the ACM on Human-Computer Interaction* 7, CSCW1 (2023), 1–24.

[53] Joey Chiao-Yin Hsiao and Tawanna R Dillahunt. 2018. Technology to support immigrant access to social capital and adaptation to a new country. *Proceedings of the ACM on Human-Computer Interaction* 2, CSCW (2018), 1–21.
[54] Abigail Hunt and Fortunate Machingura. 2016. A good gig? The rise of on-demand domestic work. (2016).
[55] Elizabeth Quay Hutchison. 2022. *Workers like all the rest of them: domestic service and the rights of labor in twentieth-century Chile*. Duke University Press.
[56] Ursula Huws. 2019. The hassle of housework: Digitalisation and the commodification of domestic labour. *Feminist review* 123, 1 (2019), 8–23.
[57] Labour Migration Branch ILO. 2015. ILO global estimates on migrant workers: results and methodology. *Geneva: International Labour Organisation (ILO)* (2015).
[58] Lilly Irani and M Six Silberman. 2014. From critical design to critical infrastructure: lessons from turkopticon. *interactions* 21, 4 (2014), 32–35.
[59] Lilly C Irani and M Six Silberman. 2013. Turkopticon: Interrupting worker invisibility in amazon mechanical turk. In *Proceedings of the SIGCHI conference on human factors in computing systems*. 611–620.
[60] Margaret Jack, Jay Chen, and Steven J Jackson. 2017. Infrastructure as creative action: Online buying, selling, and delivery in Phnom Penh. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. 6511–6522.
[61] Ria Kasliwal. 2020. Gender and the gig economy: A qualitative study of gig platforms for women workers. *ORF Issue Brief* 359 (2020), 1–14.
[62] Eleonore Kofman. 2014. Gendered migrations, social reproduction and the household in Europe. *Dialectical Anthropology* 38 (2014), 79–94.
[63] Neha Kumar, Naveena Karusala, Azra Ismail, Marisol Wong-Villacres, and Aditya Vishwanath. 2019. Engaging feminist solidarity for comparative research, design, and practice. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (2019), 1–24.
[64] Craig D Lair and Christopher K Andrews. 2018. Advertising a particularly precarious occupation: Nanny ads on Craigslist. *Sociological Spectrum* 38, 2 (2018), 69–85.
[65] Cong Li and Wan-Hsiu Sunny Tsai. 2015. Social media usage and acculturation: A test with Hispanics in the US. *Computers in Human Behavior* 45 (2015), 204–212.
[66] Toby Jia-Jun Li, Yuwen Lu, Jaylexia Clark, Meng Chen, Victor Cox, Meng Jiang, Yang Yang, Tamara Kay, Danielle Wood, and Jay Brockman. 2022. A Bottom-Up End-User Intelligent Assistant Approach to Empower Gig Workers against AI Inequality. In *Proceedings of the 1st Annual Meeting of the Symposium on Human-Computer Interaction for Work*. 1–10.
[67] Amna Liaqat, Cosmin Munteanu, and Carrie Demmans Epp. 2021. Collaborating with mature English language learners to combine peer and automated feedback: A user-centered approach to designing writing support. *International Journal of Artificial Intelligence in Education* 31 (2021), 638–679.
[68] Sirena Liladrie. 2010. 'Do not disturb/please clean room': hotel housekeepers in Greater Toronto. *Race & Class* 52, 1 (2010), 57–69.
[69] Adelyn Lim. 2016. Transnational organising and feminist politics of difference and solidarity: the mobilisation of domestic workers in Hong Kong. *Asian Studies Review* 40, 1 (2016), 70–88.
[70] Colin Lindsay and Ronald W McQuaid. 2004. Avoiding the 'McJobs' unemployed job seekers and attitudes to service work. *Work, employment and society* 18, 2 (2004), 297–319.
[71] Jessa Lingel. 2019. Socio-technical transformations in secondary markets: A comparison of craigslist and VarageSale. *Internet Histories* 3, 2 (2019), 162–179.
[72] Jessa Lingel. 2020. *An Internet for the people: The politics and promise of Craigslist*. Vol. 2. Princeton University Press.
[73] Johana P Lopez. 2013. Speaking with them or speaking for them: A conversation about the effect of stereotypes in the Latina/Hispanic women's experiences in the United States. *New Horizons in Adult Education and Human Resource Development* 25, 2 (2013), 99–106.
[74] ES Lorimor. 1977. Classified advertising: a neglected medium. *Journal of Advertising* 6, 1 (1977), 17–25.
[75] Jar-Der Luo. 2005. Particularistic trust and general trust: A network analysis in Chinese organizations [1]. *Management and Organization Review* 1, 3 (2005), 437–458.
[76] Ning F Ma, Veronica A Rivera, Zheng Yao, and Dongwook Yoon. 2022. "Brush it Off": How Women Workers Manage and Cope with Bias and Harassment in Gender-agnostic Gig Platforms. In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems*. 1–13.
[77] Bernice Martin. 1984. Mother wouldn't like it!'; housework as magic. *Theory, Culture & Society* 2, 2 (1984), 19–36.
[78] Natalie Masuoka. 2008. Defining the group: Latino identity and political participation. *American Politics Research* 36, 1 (2008), 33–61.
[79] Nora McDonald, Sarita Schoenebeck, and Andrea Forte. 2019. Reliability and inter-rater reliability in qualitative research: Norms and guidelines for CSCW and HCI practice. *Proceedings of the ACM on human-computer interaction* 3, CSCW (2019), 1–23.

[80] Mary L McHugh. 2012. Interrater reliability: the kappa statistic. *Biochemia medica* 22, 3 (2012), 276–282.
[81] Amanda Menking and Ingrid Erickson. 2015. The heart work of Wikipedia: Gendered, emotional labor in the world's largest online encyclopedia. In *Proceedings of the 33rd annual ACM conference on human factors in computing systems*. 207–210.
[82] Nusrat Jahan Mim, Dipannita Nandi, Sadaf Sumyia Khan, and Arundhuti Dey. 2022. F-commerce and Urban Modernities: The Changing Terrain of Housing Design in Bangladesh. In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems*. 1–20.
[83] Paloma Moré. 2014. When Your CV is "To Be a Latina Woman": Re-articulation of Stereotypes and Re-construction of Identity of Ecuadorian Women Working in the Care Sector. In *Identity and Migration in Europe: Multidisciplinary Perspectives*. Springer, 193–208.
[84] Carol Moser, Paul Resnick, and Sarita Schoenebeck. 2017. Community commerce: Facilitating trust in mom-to-mom sale groups on Facebook. In *Proceedings of the 2017 CHI conference on human factors in computing systems*. 4344–4357.
[85] Isabel Munoz, Michael Dunn, Steve Sawyer, and Emily Michaels. 2022. Platform-mediated Markets, Online Freelance Workers and Deconstructed Identities. *Proceedings of the ACM on Human-Computer Interaction* 6, CSCW2 (2022), 1–24.
[86] Cliodhna O'Connor and Helene Joffe. 2020. Intercoder reliability in qualitative research: debates and practical guidelines. *International journal of qualitative methods* 19 (2020), 1609406919899220.
[87] Jonathan W Palmer and Lars Bo Eriksen. 1999. Digital newspapers explore marketing on the Internet. *Commun. ACM* 42, 9 (1999), 32–40.
[88] Elisa Pannini. 2023. Winning a battle against the odds: A cleaners' campaign. *Economic and Industrial Democracy* 44, 1 (2023), 68–87.
[89] Youngsam Park, Jackie Jones, Damon McCoy, Elaine Shi, and Markus Jakobsson. 2014. Scambaiter: Understanding targeted nigerian scams on craigslist. *system* 1 (2014), 2.
[90] Krishna Pendakur and Ravi Pendakur. 2005. *Ethnic identity and the labour market*. Citeseer.
[91] Ann Peterson Bishop and Karen E Fisher. 2015. Using ICT design to learn about immigrant teens from Myanmar. In *Proceedings of the seventh international conference on information and communication technologies and development*. 1–4.
[92] Nicola Piper. 2005. Rights of foreign domestic workers—emergence of transnational and transregional solidarity? *Asian and Pacific Migration Journal* 14, 1-2 (2005), 97–119.
[93] Cosmin Popan. 2021. Algorithmic governance in the gig economy: entrepreneurialism and solidarity among food delivery workers. In *Cycling Societies*. Routledge, 239–257.
[94] Jeanny Lucero Posso Quiceno. 2008. *La inserción laboral de las mujeres inmigrantes negras en el servicio doméstico de la ciudad de Cali*. Universidad del Valle.
[95] Verónica Caridad Rabelo and Ramaswami Mahalingam. 2019. "They really don't want to see us": How cleaners experience invisible 'dirty'work. *Journal of Vocational Behavior* 113 (2019), 103–114.
[96] Rebeca Raijman, Silvina Schammah-Gesser, and Adriana Kemp. 2003. International migration, domestic work, and care work: Undocumented Latina migrants in Israel. *Gender & Society* 17, 5 (2003), 727–749.
[97] Noopur Raval. 2021. Interrupting invisibility in a global world. *interactions* 28, 4 (2021), 27–31.
[98] Noopur Raval and Paul Dourish. 2016. Standing out from the crowd: Emotional labor, body labor, and temporal labor in ridesharing. In *Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing*. 97–107.
[99] Noopur Raval and Joyojeet Pal. 2019. Making a" Pro":'professionalism'after platforms in beauty-work. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (2019), 1–17.
[100] Dorothy E Roberts. 1997. Spiritual and menial housework. *Yale JL & Feminism* 9 (1997), 51.
[101] Clara E Rodriguez and Douglas S Massey. 2007. *Latinas/os in the United States: Changing the face of America*. Springer Science & Business Media.
[102] Encarnación Gutiérrez Rodríguez. 2007. The" hidden side" of the new economy: On transnational migration, domestic work, and unprecedented intimacy. *Frontiers: A Journal of Women Studies* 28, 3 (2007), 60–83.
[103] Yasaman Rohanifar, Priyank Chandra, M Ataur Rahman, and Syed Ishtiaque Ahmed. 2021. Money whispers: Informality, international politics, and immigration in transnational finance. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. 1–14.
[104] Dina Sabie, Samar Sabie, and Syed Ishtiaque Ahmed. 2020. Memory through design: supporting cultural identity for immigrants through a paper-based home drafting tool. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. 1–16.
[105] Saiph Savage, Chun Wei Chiang, Susumu Saito, Carlos Toxtli, and Jeffrey Bigham. 2020. Becoming the super turker: Increasing wages via a strategy from high earning workers. In *Proceedings of The Web Conference 2020*. 1241–1252.

[106] Sarita Schoenebeck, Nicole B Ellison, Lindsay Blackwell, Joseph B Bayer, and Emily B Falk. 2016. Playful backstalking and serious impression management: How young adults reflect on their past identities on Facebook. In *Proceedings of the 19th ACM conference on computer-supported cooperative work & social computing*. 1475–1487.
[107] Trebor Scholz. 2017. *Uberworked and underpaid: How workers are disrupting the digital economy*. John Wiley & Sons.
[108] Becca Schwartz and Gina Neff. 2019. The gendered affordances of Craigslist "new-in-town girls wanted" ads. *New Media & Society* 21, 11-12 (2019), 2404–2421.
[109] Subhasree Sengupta and Zhasmina Tacheva. 2022. " Digital Sanctums of Empowerment": Exploring Community and Everyday Resilience-Building Tactics in Online Professional Communities for Women. In *Companion Publication of the 2022 Conference on Computer Supported Cooperative Work and Social Computing*. 89–93.
[110] Aaron Shapiro. 2018. Between autonomy and control: Strategies of arbitrage in the "on-demand" economy. *New Media & Society* 20, 8 (2018), 2954–2971.
[111] Sarah Sharma. 2014. *In the meantime: Temporality and cultural politics*. Duke University Press.
[112] Mimi Sheller. 2018. Theorising mobility justice. *Tempo Social* 30 (2018), 17–34.
[113] Saori Shibata. 2020. Gig work and the discourse of autonomy: Fictitious freedom in Japan's digital economy. *New Political Economy* 25, 4 (2020), 535–551.
[114] Irina Shklovski, Janet Vertesi, and Silvia Lindtner. 2014. Introduction to this special issue on transnational HCI. *Human–Computer Interaction* 29, 1 (2014), 1–21.
[115] Wandile Sibiya and David du Toit. 2022. Sweeping up decent work: paid domestic work and digital platforms in South Africa. *Gender & Development* 30, 3 (2022), 637–654.
[116] Cheryll Ruth R Soriano and Jason Vincent A Cabañes. 2020. Entrepreneurial solidarities: Social media collectives and Filipino digital platform workers. *Social Media+ Society* 6, 2 (2020), 2056305120926484.
[117] Catherine R Squires. 2002. Rethinking the black public sphere: An alternative vocabulary for multiple public spheres. *Communication theory* 12, 4 (2002), 446–468.
[118] Nick Srnicek. 2017. The challenges of platform capitalism: Understanding the logic of a new business model. *Juncture* 23, 4 (2017), 254–257.
[119] Susan Leigh Star and Anselm Strauss. 1999. Layers of silence, arenas of voice: The ecology of visible and invisible work. *Computer supported cooperative work (CSCW)* 8 (1999), 9–30.
[120] Rick Sullivan. 2022. Individualising Risk: Paid Care Work in the New Gig Economy by Fiona Macdonald (2021). *International Journal of Care and Caring* 6, 3 (2022), 471–472.
[121] Aditi Surie and Ursula Huws. 2023. Platformization and Informality: Pathways of Change, Alteration, and Transformation. In *Platformization and Informality: Pathways of Change, Alteration, and Transformation*. Springer, 1–12.
[122] Jennifer Parker Talwar. 2009. *Fast food, fast track: Immigrants, big business, and the American Dream*. Westview Press.
[123] Nicole Tang and Priyank Chandra. 2022. Community, Culture, and Capital: Exploring the Financial Practices of Older Hong Kong Immigrants. In *CHI Conference on Human Factors in Computing Systems Extended Abstracts*. 1–6.
[124] Arianna Tassinari and Vincenzo Maccarrone. 2020. Riders on the storm: Workplace solidarity among gig economy couriers in Italy and the UK. *Work, employment and society* 34, 1 (2020), 35–54.
[125] Sarah Thébaud, Sabino Kornrich, and Leah Ruppanner. 2021. Good housekeeping, great expectations: Gender and housework norms. *Sociological Methods & Research* 50, 3 (2021), 1186–1214.
[126] Ashique Ali Thuppilikkat, Dipsita Dhar, and Priyank Chandra. 2024. Union Makes Us Strong: Space, Technology, and On-Demand Ride-Sourcing Digital Labour Platforms. *Proceedings of the ACM on Human-Computer Interaction* 8, CSCW2 (2024), 1–36.
[127] Julia Ticona and Alexandra Mateescu. 2018. Trusted strangers: Carework platforms' cultural entrepreneurship in the on-demand economy. *New Media & Society* 20, 11 (2018), 4384–4404.
[128] Carlos Toxtli, Siddharth Suri, and Saiph Savage. 2021. Quantifying the invisible labor in crowd work. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (2021), 1–26.
[129] Joan C Tronto. 1998. An ethic of care. *Generations: Journal of the American society on Aging* 22, 3 (1998), 15–20.
[130] John Urry. 2012. Social networks, mobile lives and social inequalities. *Journal of transport geography* 21 (2012), 24–30.
[131] Niels Van Doorn. 2017. Platform labor: on the gendered and racialized exploitation of low-income service work in the 'on-demand'economy. *Information, communication & society* 20, 6 (2017), 898–914.
[132] Niels van Doorn. 2023. Liminal precarity and compromised agency: Migrant experiences of gig work in Amsterdam, Berlin, and New York City. In *The Routledge Handbook of the Gig Economy*. Taylor & Francis.
[133] Amanda Williams, Silvia Lindtner, Ken Anderson, and Paul Dourish. 2014. Multisited design: An analytical lens for Transnational HCI. *Human–Computer Interaction* 29, 1 (2014), 78–108.
[134] Penny Williams, Paula McDonald, and Robyn Mayes. 2021. Recruitment in the gig economy: attraction and selection on digital platforms. *The International Journal of Human Resource Management* 32, 19 (2021), 4136–4162.
[135] Marisol Wong-Villacres, Aakash Gautam, Deborah Tatar, and Betsy DiSalvo. 2021. Reflections on assets-based design: A journey towards a collective of assets-based thinkers. *Proceedings of the ACM on Human-Computer Interaction* 5,

CSCW2 (2021), 1–32.
[136] Alex J Wood, Vili Lehdonvirta, and Mark Graham. 2018. Workers of the Internet unite? Online freelancer organisation among remote gig economy workers in six Asian and African countries. *New Technology, Work and Employment* 33, 2 (2018), 95–112.
[137] Zheng Yao, Silas Weden, Lea Emerlyn, Haiyi Zhu, and Robert E Kraut. 2021. Together but alone: Atomization and peer support among gig workers. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (2021), 1–29.
[138] Sofia Cavalcanti Zanforlin and Rafael Grohmann. 2022. Precarious Migrants in a Sharing Economy| On-Demand Migrants: Entrepreneurialism, Platformization, and Migration in Brazil. *International Journal of Communication* 16 (2022), 18.
[139] Angie Zhang, Alexander Boltz, Chun Wei Wang, and Min Kyung Lee. 2022. Algorithmic management reimagined for workers and by workers: Centering worker well-being in gig work. In *Proceedings of the 2022 CHI conference on human factors in computing systems*. 1–20.

A Appendix: Final Codebook

Table A.1. Final Codebook

Parent code	**Child Codes**
Identity	Participant's languages spoken and barriers; Ways of taking care of their families; Previous employment and education trajectory; Initiation in house-cleaning
Group_ID	Latin American Practices; Stereotypes: Latin Americans, Women, Men; Latino group relations: socializing and community; Attitudes and Perceptions around Latinos; Attitudes and Perceptions around Non-Latinos
Search_Practices	Work Environments; Offline ways of searching for work; Online ways of searching for work; Work Referral Sources; Ways of vetting clients
Housecleaning_Practices	Perceptions around House-cleaning; Routines: recurring tasks and schedules; Etiquette: Job expected behavior; Work Objects: Non-technological Items; Narratives of client encounters; Temporality: work hours and time perspectives; Cleaning strategies for completing work; Participant's surveillance online or offline
Tech_Role	Personal technologies usage; Communication with their families; Housecleaning Tech: technologies used on the job; Participants' attitudes towards technologies; Online communities engaged in for support; Communication with employers via technology; Mobile device practices related to security and privacy; Apps and websites perceptions and experiences; Algorithm Management: ratings and online presence
Finances	Wages: payment discussions; Mechanisms to receive payment; Managing their personal finances; Challenges with compensation
Gender_Practices	Descriptions of gender roles
Pandemic	COVID-19 house-cleaning work adaptations and changes

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