

Organizing Entrepreneurial Solidarity through Border-crossing in App-based Platform Work

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Abstract

Gig workers in app-based platforms navigate digital and organizational borders shaped by algorithmic control and socio-spatial atomization. While these border-keepers hinder collectivization, they also create a need for solidarity. This study examines entrepreneurial solidarity among Urban Company partners in Kolkata, West Bengal, India, through qualitative interviews of 58 partners, identifying three key processes: individual border-crossing to recognize entrepreneurial solidarity, collective border-crossing via ambient socialities (awareness, co-presence, affiliation), and border-breaking platform control through active resistance. The research highlights the role of ‘phygital’ spaces – unmanaged digital and physical environments – in overcoming isolation and fostering worker mobilization. By framing gig workers as daily border-crossers navigating constraints imposed by platforms, this study contributes to discussions on labour mobility, digital governance, and workplace inequalities. It underscores the challenges and opportunities in organizing gig workers across fragmented labour landscapes, offering insights into how digital labour borders can be contested and reshaped through collective action.

Keywords: platform work; entrepreneurial solidarity; worker resistance; phygital spaces; digital border crossing.

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Introduction

In developing countries like India, gig work facilitated by digital platforms has emerged as significant sources of income, appealing to individual workers while simultaneously stimulating regional development (Soriano & Cabañes, 2020). These workers consider themselves as well-positioned to conduct sophisticated service work and to grow as professionals, despite the unique challenges they face. These challenges create digital, organizational, and economic borders that workers must navigate daily and are inherent to their roles as ‘entrepreneurs’ or ‘partners’, a designation that platforms use to frame their work (Jyani & Bansal, 2023). However, this entrepreneurial identity is often at odds with the precarious realities of gig labour, which are shaped by non-geographical borders such as algorithmic control, socio-spatial atomization, and the lack of social and legal protections.

The Oxford Dictionary defines a border as “a line separating two political or geographical areas”. Broadly, it can also mean a physical, digital or conceptual boundary between places, people, or ideas. In this study, border-keeping refers to maintaining, regulating or enforcing boundaries through rules, algorithms, or surveillance. Border-crossing involves navigating or bypassing these boundaries, imposed by border-keepers, to achieve goals or connect with others. Border-breaking goes further, actively dismantling or disrupting borders to challenge their existence. This study explores the research gap of how gig workers navigate, cross, and break borders, imposed by precarious labor conditions, to organize entrepreneurial solidarity and reclaim their autonomy in the platform economy.

On-demand work via app-based platforms such as Urban Company (formerly UrbanClap), Uber, Ola, Zomato, etc. has gained prominence over the years by providing flexible income opportunities (Ilsoe & Larsen, 2020; Kenney et al., 2019) and framing gig work within the entrepreneurship discourse (Kalleberg, 2011). While these platforms glamorize “risk-taking, autonomy, self-reliance and flexibility” by calling these workers ‘partners’, the reality for workers is often starkly different (Ghosh, 2021). The initial allure of higher earnings – sometimes four to five times their previous income – soon gives way to grievances over the lack of social security, precarious job contracts, and pervasive worker surveillance through customer ratings and algorithmic management (Gandini, 2019; Rosenblat & Stark, 2016). These very same factors also act as structural borders to collectivization (Shalini et al., 2021). The classification of gig workers as ‘independent contractors’ or ‘partners’ denies them access to essential protections such as pensions, maternity benefits, and insurance. Even trade unions face difficulties in organizing against an employer governed by algorithms and technology. Furthermore, the ‘socio-spatial atomization’ in Uber or Urban Company, that is, the isolation of workers from one another where they do not meet or know their co-workers during their daily work (Wells et al., 2021), creates geographical and temporal barriers that hinder collective organizing (Lehdonvirta, 2018; Irani & Silberman, 2013; Wood et al., 2018). This isolation, combined with the mobile nature of gig work, makes it challenging for workers to form a unified voice or address shared grievances.

For such partners, work is a border-crossing activity that involves navigating the tension between the entrepreneurial identity promoted by platforms and the precarious realities of their labour. While platforms emphasize flexibility and autonomy, workers often find themselves grappling with rigid algorithmic controls and surveillance that limit their agency. This duality reflects the broader theme of work-life boundaries, where the promised flexibility of gig work is undermined by the rigidity of platform-imposed constraints. Platform algorithms function as ‘border-keepers’, regulating workers’ access to jobs, earnings, and opportunities. These digital

borders create a power imbalance, as workers must constantly adapt to algorithmic decisions that dictate their work conditions. Despite these challenges, gig workers are still adept at organizing solidarity and this study primarily investigates the same by focusing on Urban Company service providers in Kolkata, West Bengal, India. It brings to light the real manifestation of such collectivization of workers through three steps: individual ‘border-crossing’ through recognizing entrepreneurial solidarity by building a resilient self and engaging in micro-processes to work around the platform; collective ‘border-crossing’ by resonating with the concerns of other workers to form a solidaristic identity; and ‘border-breaking’ by resisting oppressive forces that try to subdue the entrepreneurial solidarity of the mobilized workforce. These workarounds are facilitated by the emergence of unmanaged physical and digital spaces collectively known as ‘phygital’ spaces (Moravcikova & Klietkova, 2017; Tseklevs et al., 2014; Shalini et al., 2021) that are free from any sort of managerial surveillance. Special attention is given to the use of social media, predominantly WhatsApp and Facebook, in functioning as the ‘unmanaged’ digital spaces for organizing geographically isolated workers to stand for their labour rights. Drawing from the interviews of 58 Urban Company workers, this study helps relate to the three ambient socialities (ambient awareness, ambient co-presence and ambient affiliation) (Leonardi & Meyer, 2015; Madianou, 2016; Zappavigna, 2011) that create an environment conducive to ‘entrepreneurial solidarity’.

This study addresses two key research gaps in gig work: the limited understanding of how workers navigate digital and organizational borders to organize solidarity and the lack of research on how they actively reclaim entrepreneurial identities through ambient socialities. It introduces ‘border-crossing’ as a framework to examine how gig workers resist platform-imposed ‘border-keeping’ constraints and leverage phygital spaces for collective agency. By conceptualizing entrepreneurial solidarity as a dynamic process of individual and collective ‘border-crossing’ (sometimes ‘border-breaking’), this paper contributes to discussions on labour mobility, digital governance, and the interplay between entrepreneurship and precarious work. This paper begins by stating the theoretical basis for the study capturing significant ‘border-keepers’ of platform solidarity such as ambivalent marginality of platform workers, exercise of algorithmic control, socio-spatial atomization and emergence of unmanaged phygital spaces. This is followed by the methodology used that includes semi-structured interviews of 58 Urban Company workers in Kolkata. Then the results from these interviews are analyzed in great detail to help us understand how solidarity is organized in such platforms. Finally, an integrated framework is developed consisting of all the border keeping, crossing and breaking processes of collectivisation.

Theoretical Background

Border-Keepers: Ambivalent Marginality, Algorithmic Control and Socio-spatial Atomization

Entrepreneurial solidarity stems from “how the social interactions and exchanges among digital workers are characterized by competing discourses of ambiguity, precarity, opportunity, and adaptation” (Soriano & Cabañes, 2020). This solidarity is deeply embedded in the informal platform economy, which simultaneously enables and constrains workers. Central to understanding this dynamic are the concepts of ambivalent marginality, algorithmic control, and socio-spatial atomization, all of which function as border-keepers that shape the experiences of gig workers as they navigate the borders between entrepreneurship and

precarious labour. With respect to ambivalent marginality, Weisberger (1992) introduces the concept of the ‘marginal man’, who is caught in a ‘structure of double ambivalence’ of a dominant culture such that neither can he leave it nor can he return to it. Gig workers experience a similar duality. On one hand, they are drawn to the ‘flexibilization’ of work offered by platforms like Uber and Urban Company, which promise autonomy, attractive incomes, and the ability to choose when, where, and how they work (Ofreneo, 2013). On the other hand, they face precarity in the form of job insecurity (Flanagan, 2017), unstable career paths (Duggan et al., 2022), lack of social and protection rights (De Stefano, 2015) and the inability to organize collectively (Standing, 2011). This ambivalence positions gig workers as daily border-crossers, constantly navigating the tension between opportunity and vulnerability, and leads to the rise of various worker grievances that need to be addressed by collectivistic and solidaristic voices. However, the multidimensionality of the platform architecture establishes impediments in the path of any such collectivization (Lei, 2021). Two of the most important ‘fixes’ (Vandaele, 2021) to organizing solidarity are the mechanisms of algorithmic control (Bathini & Shalini, 2021) and socio-spatial atomization (Wells et al., 2021).

Silver (2003) and Vandaele (2021) mention and elaborate the concept of spatio-temporal ‘fixes’ defined as the “various strategies of capital aiming to lessen labour costs and to maximize labour control”. The platform economy relies heavily on algorithmic control, a technological fix that serves as a border-keeper by regulating workers’ access to jobs, earnings, and opportunities (Bathini & Shalini, 2021; Hecht, 1998; Lee, 2018). Algorithms, characterized by information asymmetries and opaque technological design, perform complex managerial tasks such as ‘matching’ workers with consumers, tracking real-time location, monitoring deviations, and evaluating performance through customer ratings (Veen et al., 2019; Moore & Joyce, 2019; Rosenblat & Stark, 2016; Wood et al., 2019; Lehdonvirta, 2018). These digital borders create a power imbalance, as workers must adapt to algorithmic decisions that dictate their work conditions, often without transparency or recourse. Another critical border-keeper is socio-spatial atomization, a spatial distance-entrenching fix that isolates workers from one another, reducing opportunities for collective organizing (Vandaele, 2021; Wells et al., 2021). Platforms individualize and localize work within personal spaces, making it difficult for workers to connect and form communities (Gandini, 2015; Graham et al., 2017). This isolation is compounded by the geographical and temporal borders inherent in gig work, as workers are often mobile and dispersed, with little time or opportunity to share grievances or build networks (Irani & Silberman, 2013; Lehdonvirta, 2018; Wood et al., 2018).

Marginalized by both these ‘fixes’, these platform workers try to redesign their responses to alleviate the double ambivalence. Believing in themselves to be powerful agents who can reshape dominant economic structures (Herod, 2001; Coe, 2013), they engage in praxis, exercising agency to reshape dominant economic structures and forge alternative futures (Wells et al., 2021). This agency manifests itself through individual and collective ‘border-crossing’, as workers navigate the borders imposed by algorithmic control and socio-spatial atomization. While disciplinary and opaque characteristics of the platform algorithms cause the piling up of numerous grievances (Rosenblat & Stark, 2016; Tassinari & Maccarrone, 2020), management’s delayed responses to redress these grievances worsen the situation. Furthermore, the socio-spatial atomization reduces any chances of sharing each others’ work concerns and creates a sense of unfairness, thereby instilling in these platform workers a need to form a collective identity (embryonic solidarity) and act in accordance to it (active solidarity) (Atzeni, 2010; Lei, 2021). This highlights the importance of the two processes of bonding – forming intra-group ties, and bridging – creating inter-group networks (Morgan & Pulignano, 2020), in organizing solidarity. However, the socio-spatial atomization creates significant

barriers to these processes, making it difficult to build the social commitments and relational cultures necessary for bonding and bridging. Yet, workers find ways to overcome these border-keepers by leveraging unmanaged phygital spaces where they can coordinate actions and form collective identities free from platform surveillance (Tassinari & Maccarrone, 2020).

Significance of Free ‘Unmanaged’ Phygital Spaces in Border-Crossing and Organizing Solidarity

Free spaces are “spaces, physical or virtual, with relatively less oversight by management and are thus less influenced by surveillance and managerial retribution” (Thompson & van den Broek, 2010). In the context of the platform economy, these spaces promise to act as facilitators of “organizational creativity and experimentation for labour” (Murray et al., 2020), enabling workers to cross borders imposed by algorithmic control and socio-spatial atomization. These spaces allow workers to form localized networks where shared concerns are reinforced, fostering a collective identity that can challenge platform policies.

Physical free spaces provide ‘temporary moments of solidarity’ by overcoming the socio-spatial atomization inherent in gig work. For instance, Wells et al. (2021) describe how Uber drivers organized ‘fake’ strikes at the D.C. airport. By halting at driveways and discussing shared grievances, drivers created a collective identity that led to organized action. Although the strikes had limited impact, they forced the platform to address worker concerns, demonstrating how physical ‘free’ spaces enable border-crossing from isolation to collective resistance (Wells et al., 2021). Digital spaces, such as Facebook, WhatsApp, and Telegram, also act as de-facto sites for border-crossing, enabling workers to overcome geographic and temporal barriers (Shalini et al., 2021; Lehdonvirta, 2016; Geelan & Hodder, 2017; Bergvall-Kåreborn & Howcroft, 2014). These social media platforms facilitate immense coordination and information sharing among platform workers in organizing collective action and entrepreneurial solidarity (Dolber, 2019; Johnston, 2020; Geelan & Hodder, 2017; Lehdonvirta, 2018), help mitigate the geographic disparity by providing these workers with a basis for social formation (Lehdonvirta, 2016; Wood et al., 2018), and aid in formulating tactics and coordinating meetings, protests and agitations at physical ‘free’ spaces (Wood, 2015). As a result, by combining physical and digital spaces into ‘phygital spaces’ (Moravcikova & Klietkova, 2017; Tseklevs et al., 2014; Shalini et al., 2021), workers can create ‘communities’ to mobilize and cross borders from individual precarity to collective action despite platform-imposed isolation (Ford & Honan, 2019; Panimbang, 2021).

App-based platform work in India: A study on the Urban Company partners

Urban Company, a leading app-based platform in India, provides home repair, maintenance, beauty, and wellness services through a commission-based hyperlocal aggregate model (Jyani & Bansal, 2023). By pooling together service providers such as beauticians, electricians, and plumbers, the platform offers at-home services via its mobile application. Urban Company refers to its service providers as ‘partners’, requiring them to maintain a prepaid credit system from which commissions, product costs, and fees are deducted. Initially, the platform attracted workers with promises of flexible work schedules, higher incomes, and opportunities for upskilling, positioning itself as a market leader in on-demand services. However, over time, workers began to face significant challenges, including rising commission rates, declining package prices, delayed helpline responses, and increasing client-side biases. These issues eroded their earnings and working conditions, creating a need for collective action to address shared grievances. As the workers began to share their concerns over social media

platforms or during informal meet-ups at unmanaged free spaces such as parks, tea-stalls, etc., the common issues seemed to bridge and bond them together. Soon these led to collectivisation attempts, via meetings and gatherings, to cross borders imposed by the platform's algorithmic control and socio-spatial atomization. However, while these phygital spaces enabled discussions and the formation of collective identities, they often fell short of translating into actionable solidarity. Many workers, after venting their frustrations, hesitated to challenge the platform, instead valuing the perceived benefits of their partnership with Urban Company.

Drawing from in-depth interviews with 58 Urban Company workers located in the city of Kolkata, this study discusses the emergence of 'entrepreneurial solidarities' (Soriano & Cabañes, 2020), facilitated by 'ambient socialities' (Leonardi & Meyer, 2015; Madianou, 2016; Zappavigna, 2011) that develop in the phygital 'unmanaged' spaces (Shalini et al., 2021). Organizing such entrepreneurial solidarities depict how these workers do not accept the capitalistic designs of app-based digital platform labor. Instead, they circumvent an algorithmic system that tries to exert control over them by helping each other out. However, such solidaristic initiatives often have a lot of bottlenecks in their organizing phase, and the workers' resistive potential is also undermined as they inadvertently reinforce the platform's control structures, failing to significantly improve their working conditions. The study will elaborate on this further as it analyzes the results of the semi-structured interviews.

Methodology

A qualitative approach was adopted for this exploratory study, utilizing semi-structured interviews to understand how Urban Company partners organize entrepreneurial solidarity despite platform-imposed 'border-keepers'. An interview schedule with 15 open-ended questions was designed to probe workers' experiences without leading responses (Kwack & Winer, 1986), to maintain a chain of thought and to keep the meeting within the theme limit. Interviews were conducted with 58 Urban Company partners (21 male and 37 female partners), all home beauty and wellness service providers with over seven years of experience (median), ensuring depth of insight into collectivization processes. Of these, 32 were phone interviews (average duration 1 hour), and 26 were face-to-face (average duration 1 hour 30 minutes), with the latter being audio-recorded and prescheduled (Table 1). Quotes in the findings are drawn from the recorded interviews.

Participants were approached through personal contacts, reflecting diverse educational backgrounds: six had college-level education, while eight had discontinued schooling before secondary level (Table 1). They were categorized into Lux (25), Prime (20) and Classic (13) partners, with the first having the highest ratings. The interviews were conducted in Bengali and transcribed into English for analysis. Despite lacking the requisite educational skills to use social media platforms, all of them had owned or used smartphones before joining Urban Company. The respondents were primarily asked about the problems they faced as Urban Company partners, how they were resolved – formally or informally, interactions with irate customers and indifferent managers, what happened at informal gatherings, how they were coordinated, how important was social media for interacting with one another and what was the content of the conversations on such platforms. Sometimes extra conversation would follow certain questions by picking up certain aspects of the respondents' answers. While respondents were open about their challenges, they were hesitant to discuss meeting locations or collective actions, fearing breaches of confidentiality. However, trust was established in the face-to-face interviews, enabling audio recording. The data from the interviews of these 58 Urban Company

partners portrayed a genuine impression of how solidarity is organized in the app-based platform work.

Partner responses were manually coded, memoed and categorized under several heads to uncover patterns. Corbin and Strauss' (1990) grounded theory principles and canons were used for such manual coding as "the procedures of grounded theory are designed to develop a well-integrated set of concepts that provide a thorough theoretical explanation of social phenomena under study" (Corbin & Strauss, 1990). Initial first-order coding identified patterns, followed by selective second-order coding aligned with core theoretical concepts. Researcher reflections were documented throughout the process, enriching the analysis.

 Insert Table 1 about here

Results and Analysis

Border-keepers of organizing entrepreneurial solidarity

The precarious nature of digital platform work acts as both a facilitator and a bottleneck for organizing entrepreneurial solidarity. Based on interviews with Urban Company partners, three key 'border-keepers' emerged: ambivalent marginality, algorithmic control, and socio-spatial atomization.

Ambivalent Marginality

Most of the Urban Company partners praised the platform for providing livelihoods during periods of unemployment and low-pay. Many highlighted the platform's role in upskilling and offering exposure to a diverse client base. Before joining, most worked in salons or parlours with fixed, often extended hours and low pay, making daily life sustenance cumbersome. Urban Company offered higher earnings (4-5 times their previous income) and flexibility in choosing work hours and days off, fostering a sense of micro-entrepreneurship. However, challenges soon surfaced. Despite being aware of insecurities such as unstable career paths and lack of protection rights, these new issues were creating "doubts in their minds". Prepaid credit recharges (from where expenses of travel, product purchases, training and maintenance costs were deducted) spiked and commission rates increased (from 10%-15% to 30%-50%), while package prices heavily decreased during seasonal sales, reducing net earnings. Partners faced delayed helpline responses and access charges, exacerbating frustrations. One of the partners stated:

"One of the partners did not do their SME [subject matter expert] job well, and the customer complained. Because I had a higher rating, I was called to take up the job. It was assured that no commissions would be deducted from my credit. However, it was still deducted. I tried calling the helpline but there was no response. After repeated calling, they responded, I complained, they said they would look into it, and 20 rupees was deducted from my credit for accessing the helpline."

Overall grievance redressal policies had degraded with partners having to submit their complaints in writing which was difficult for them considering their low levels of digital media education. Partners also felt unfair treatment in favour of clients, such as being penalized for cancellations (blocking of IDs) while customers faced no consequences. Moreover, partners were still restricted in certain aspects such as the weekly number of days off (on an average two days) and the work hours they had to complete to remain in a better category (minimum 10-12 hours). Despite these ‘border-keepers’ impeding the partner’s entrepreneurial identity, the attractive income and flexibility reinforced it, creating a double ambivalence – balancing precarity with opportunity.

Algorithmic Control

Partners viewed algorithmic control as a ‘border-keeper’ that was an infringement upon their autonomy as an entrepreneur. Due to their opaque technological design, the partners felt that sometimes they were being played. Algorithms dictated job allocations, often assigning tasks far from their usual hubs, and if requested to change the location, they were denied any such provision. One partner recounted:

“My hub is Joka. One day I was allocated a job at Sonarpur [distance between Joka and Sonarpur being 15km]. I called them and asked them to get me a customer somewhere in my hub. It got changed to Rabindra Sadan [distance between Joka and Rabindra Sadan being about 13km]. When I called them again, they said no further changes would be considered: ‘You have to do it.’”

Sometimes due to greater demand, algorithms unknowingly prioritized newcomers over experienced partners while allotting high-category tasks, despite the latter’s higher ratings. Partners were made to answer to the category manager when deviations from standard operations were tracked such as doing half of the job at the request of the customer. Customer ratings further segmented services into classic, prime, and lux categories, with low ratings often leading to demotions, retraining proposals and ID blockings. Partners felt that they were unaware of the extent of data collection and segmentation, viewing algorithmic control as an opaque and restrictive ‘border-keeper’.

Socio-spatial Atomization

Mostly, a simple answer to the question “How do you know get to know or meet with other partners?” was “I don’t!” The socio-spatial atomization of workers hindered connections and collective action. Most partners rarely interacted, with 42 out of 58 respondents stating they never socialized with colleagues. Their work was so individualized and localized within their personal space by the platform that they seldom found it necessary to socialize. One respondent stated:

“I’ve never talked to another Urban Company partner. I see them on the streets but I do not find it necessary to engage in ‘Hi!’ ‘Hello!’ with them. I have come here to do my job. My job is done, I get paid and I go home. What will I do by talking to other people? I don’t need friends.”

However, some partners sought connections to address shared concerns, such as customer rating pressures, high commission rates, and work-life balance issues. The lack of

physical and digital spaces for interaction made forming a collective identity challenging, highlighting the need for phygital spaces to bridge isolation. Therefore, these ‘border-keepers’ – ambivalent marginality, algorithmic control, and socio-spatial atomization – shaped the experiences of Urban Company partners as they navigated the borders of platform labour. While these factors created barriers to collective action, they also planted the seeds for entrepreneurial solidarity and collectivization, starting with individual agency first.

Recognition of entrepreneurial solidarity through individual border-crossing

Most of the partners agreed that they were as much an Urban Company partner as the word on the back of their T-shirts. They often expressed frustration with the platform’s failure to honour the entrepreneurial autonomy and flexibility promised during onboarding. Despite the precarities of gig work, partners recognized their entrepreneurial identity through individual agency, engaging in two key strategies to bypass the ‘border-keepers’: building the resilient self and micro-processes to work around the platform. These acts of ‘border-crossing’ allowed them to navigate the constraints imposed by the platform and reclaim their entrepreneurial spirit.

Building the resilient self

Partners accepted the risks of gig work as part of the job, particularly the bias toward clients in disputes. Even high-rated partners faced challenges when clients complained, as the platform prioritized customer concerns. One partner commented:

“They listen to our views on the matter, say that they’ll look into it and then shut up shop!”

Customer ratings, a key performance metric, often felt unfair. Another partner explained:

“It takes 25 to 30 recurring five-star ratings to increase your points by 0.20. However, one three-star and one one-star rating in a week can reduce your points by 0.80. Like this, if your rating somehow goes below 4.8, your IDs get blocked.”

Thus, a heavy bias towards the idea of “the customer is always correct” displeased these workers. In situations on the job when the customer was angered at different aspects of the service, all the respondent partners claimed that they often internalized blame, even for issues beyond their control (such as technological glitches), to avoid escalating conflicts. Two respondents said:

“If I tried replying back to the customer, there would be immediate reactions and the situation would go from bad to worse ultimately leading to dire consequences that will hamper my job. So, I prefer keeping shut, store all the anger inside me and walk out the door politely.”

“Once there was a situation that happened with me. After giving quality service at the gate of the customer and leaving, I was called and blamed for stealing her *mangalsutra*. I had to listen to all the things [including expletives] that the customer hurled at me, but I did not reply. I pressed the

emergency button and then someone from the platform suggested that I do not go back to the customer's place and wait for the complaint to be registered first by the customer. However, no complaint was registered till date."

These border-crossing experiences and acts of daily survival reinforced their resilient self, enabling them to endure the precarities of gig work while maintaining their entrepreneurial identity.

Micro-processes to work around the platform

At the individual level, partners engaged in workarounds to bypass platform constraints, such as forming personal relationships with 'trustworthy' clients who would not 'leak' such private information to platform officials. By sharing personal contact details, they created an independent customer base, reducing reliance on the platform, and, avoiding high commission rates, reduced package prices and lack of adequate refund policies during cancellation by clients. Moreover, tech-savvy partners also manipulated the platform's algorithms by asking trusted clients or own family members to repeatedly book and cancel services until they were assigned the job automatically by the app. This clever tactic helped them secure higher ratings and comments, boosting their credibility. Consequently, both 'border-crossing' strategies allowed them to regain control over their earnings and work conditions (monetary, temporal and spatial). These individual acts of deviance would again help them recognize their entrepreneurial identity, which they aspired to uphold when they joined Urban Company. However, these 'border-crossing' practices carried risks. If the platform could detect such activities via its advanced algorithms, there would be other dire consequences. One partner recounted:

"I remember an incident where there was this girl who would sometimes ask her boyfriend to repeatedly book and cancel on the app until she would be automatically allocated the task. Though the same commission rate would be applicable, this was a clever way to get a five-star rating. However, the company detected this activity, I don't know how, but they did. They called her to the office and without any further deliberation, fired her right away."

Although these incidents strengthened their resilient self, they often marginalized the autonomy and flexibility of the entrepreneurial self. As a result, while individual acts of resilience and workarounds helped partners navigate the borders of gig work, they also underscored the need for collective action. Partners realized that overcoming socio-spatial atomization and forming a united front were essential to addressing shared grievances. This transition from individual to collective border-crossing marks the next step in organizing entrepreneurial solidarity, as partners seek to reclaim their autonomy and challenge the precarities of platform labour.

Resonance with entrepreneurial solidarity through collective border-crossing

Mobilizing Urban Company partners to form a collective voice was a challenging task, requiring shared concerns and demands, and the propulsion to address platform officials. Partners needed their grievances to resonate across the workforce, a process facilitated by phygital spaces – unmanaged physical and digital environments free from platform surveillance (Moravcikova & Kliestikova, 2017; Tseklevs et al., 2014; Shalini et al., 2021). These spaces

fostered ambient socialities, namely, ambient awareness (Leonardi & Meyer, 2015), ambient co-presence (Madianou, 2016) and ambient affiliation (Zappavigna, 2011) – enabling partners to cross borders of isolation and build solidarity. Ambient sociality can be defined as an environment that is conducive to encompassing socialization of various people who “may not have interacted directly and likely do not know each other, and may not interact again” (Hjorth & Richardson, 2020; Wu et al., 2017; Soriano & Cabañes, 2020; Zappavigna, 2011; Leonardi & Meyer, 2015; Madianou, 2016). Ambient awareness refers to the awareness of each other’s communications that “can help knowledge seekers to encounter the material with which to help them gauge how to approach and ask knowledge sources for desired knowledge” (Leonardi & Meyer, 2015). Ambient co-presence is “the increased awareness of the everyday lives and activities of significant others through the background presence of ubiquitous media environments” (Madianou, 2016). Ambient affiliation refers to the relationships created “around evolving topics of interest” that allow affirmation of shared values (Zappavigna, 2011). Through the lens of ambient socialities, this study shows how such interactions and exchanges facilitated by the phygital spaces permit partners to engage in ‘border-crossing’ solidaristic action.

Ambient awareness

Partners first encountered each other during joining, training, product launches or office visits, and got to know each other’s contact details through WhatsApp groups created by the company for information sharing. From problem resolution, partners visited office premises and met with category managers. During these visits, they shared grievances with other partners about excessive commissions, ID blocks, management indifference (eg. when management threatened to block a partner’s ID, when she cancelled a booking owing to her father passing away – an emergency situation), client prejudice and algorithmic opacity. These interactions created ambient awareness, as partners realized their struggles were shared, especially as they were under the threat of some disciplinary action arbitrarily taken against them due to any minor fault. One partner noted:

“The company is making changes every day, every minute and every second. When I could not catch up, I suddenly receive some alerts on my app and no questions asked, I had to comply otherwise my ratings would go down.”

This initial bonding deepened through ambient awareness in phygital spaces ‘free from any surveillance’, such as tea stalls, hotel lunches and WhatsApp groups, where partners discussed issues like unfair ratings and management apathy, and found a common base of concerns created due to injustice and unfairness from the platform’s end. Thus, they realized the need to come together to voice their problems and discuss them further by border-crossing the restrictions of atomization. The author visited various partners at tea stalls, where on asking whether they feared being monitored by company officials, they said they did not, as long as there was no clear audio or visual evidence of them discussing against the company. Unlike in the case of Uber, these partners could switch off their slots for hours if they wanted to discuss problems with other partners, sometimes visiting each other’s homes to do so. However, constraints such as the platform-fixed number and locations of jobs per day, would inhibit such informal meetings. Consequently, partners resorted to digital unmanaged social media platforms, such as Facebook and WhatsApp groups, to share work-related incidents such as excessive credit prepaid recharges, delays in arrival of purchased products, suspension of IDs, and so forth. The partner with the *mangalsutra* incident stated:

“As soon as I stated my incident about the *mangalsutra* on the WhatsApp group, people would reply stating that they too faced something similar, such as clients complaining about the partner stealing their shoes.”

As more partners became aware of such management unfairness, these phygital spaces validated their concerns, laying the groundwork for collective action.

Ambient co-presence

As interactions increased in the phygital spaces, partners developed a sense of bonding and trust, triggering the potential to bypass the imposed borders. Physical meetups at tea stalls or homes allowed partners to vent frustrations and share personal struggles, while WhatsApp groups provided a digital space for ongoing support. One partner reflected:

“In my starting days, I felt alone. Now due to the WhatsApp groups, I felt that there were others who were fighting the same fight. I wanted to talk to them, share what I had gone through, tell them that it will be okay and be there for them.”

Soon, conversations were no longer restricted to work-related issues: it included sharing personal problems, asking for opinions, navigating app changes, discussing sports and films – thereby strengthening their companionship. However, there was a difference in the type of conversations that happened in the physical and the digital spaces. While physical interactions allowed partners to engage in uninhibited ‘border-crossing’ – freely express emotions and vent frustrations, often using abusive language as a sign of close friendship, digital conversations were marked by calculated ‘border-crossing’ – no written disagreement with company policies – as partners were cautious and feared algorithmic surveillance. With the co-presence of other partners acting as a support system, these group ties deepened bonds, facilitated communal feelings and transformed individual grievances into a collective identity. Consequently, the co-presence in these phygital spaces and increased awareness of shared struggles strengthened the desire of ‘border-crossing’ to form a collective identity (embryonic solidarity), and unlocked the potential to form a network that would be bridged by the common need to act in accordance to that identity (active solidarity).

Ambient affiliation

As partners gained social media skills, they discussed significant issues online such as dealing with customers or the platform and started taking decisions to improve their situation. The collective identity that had been previously established now needed a plan of action. Partners used phygital spaces to coordinate actions, such as not taking up jobs that involved free service, boycotting clients by sending screenshots having the details of that client or challenging unfair app features. When the IDs of partners in the same hub were blocked by the management, they would discuss the reasons over WhatsApp and fix a time to go to the office to talk to the manager and request him to unblock the ID. Consequently, decisions were made collectively, often through WhatsApp, and executed in physical spaces. For example, partners resisted the app’s ‘edit’ feature, which allowed clients to reduce service costs by editing the package, causing losses for workers. One partner recalled:

“The ‘edit’ feature on the app was creating a nuisance. Instead of getting a service at a set price, intelligent customers could explore the app to get the

same service at a lower price by editing a package deal, causing a loss for me.”

Upon complaining to the head trainer, one partner received a reply:

“If you say this is a problem, why aren’t partners from other zones also complaining? Nothing can be done; you follow this as it is.”

This lack of bridging across groups suggested that the next step was to create a network and gather a larger audience of Urban Company partners to collectively voice the problems. This expansion of membership across zones facilitated by the free phygital spaces, would result in an ambient affiliation reflecting the shared values of the entrepreneurial self that would not be bogged down under the oppressive management forces. With the help of information sharing over phygital spaces, partners from different zones began to attend these meetings as well. During these informal gatherings, leaders emerged organically, organizing meetings and defining roles, so that networks across zonal borders were ‘bridged’, fostering ambient affiliation.

The bridging and bonding that were facilitated by the ambient awareness, ambient co-presence and ambient affiliation in the free phygital spaces transformed embryonic solidarity into active entrepreneurial resistance, enabling Urban Company partners to cross borders of isolation and fight for their vulnerabilities. As emergent leaders used these spaces to motivate partners, a collective identity emerged that allowed its members to be aware of shared concerns, stemmed from the co-presence of its members and affiliated itself with the larger idea of the entrepreneurial self. This highlighted how collective ‘border-crossing’ through phygital spaces could mobilize these gig workers to challenge oppressive structures and build solidarity.

Border-breaking resistance against forces that subdue entrepreneurial solidarity

The resistance against forces undermining the entrepreneurial solidarity of Urban Company partners began with discussions on WhatsApp groups, culminating in collective visits to the platform’s office to meet with the category manager. However, some partners doubted the effectiveness of these efforts, believing the platform would disregard their concerns. At times, influential leaders emerged, using social media to mobilize partners and even involving media coverage to amplify their demands. For instance, leaders used Facebook Live to document protests in real-time, creating a ‘border-breaking’ narrative that transcended physical and digital spaces. However, resistance efforts were sometimes thwarted when trainers, inadvertently part of WhatsApp groups, leaked plans to platform officials, leading to office closures during planned protests. At a broader level, resistance movements expanded to include partners from multiple zones and cities, coordinated through phygital spaces. Leaders used WhatsApp and phone calls to organize city-wide strikes and national protests, aiming to actively dismantle the platform ‘border-keepers’ so that their grievances are addressed. Partners also rose in solidaristic action against the platform’s bias toward clients, which often left them vulnerable. One partner explained:

“The clients can cancel the service even when I am standing at their front door but we cannot, because if we do, we are charged. No travel refunds are given to us if the client cancels. Any technical glitch on the app has to be accepted as my fault. Sometimes, clients want half of the package to be done on the spot but commission is deducted fully and we have to adapt to these

immediate changes. Customer complaints are dealt with very minutely. However, when customers misbehave with us, we were supposed to keep shut and accept it. No penalties are levied on the customer. We partners have to be the bearer of all losses even for issues beyond our control.”

When repeated incidents with problematic clients occurred, partners used phygital spaces to collectively strategize responses, highlighting the dual role of these spaces in fostering solidarity and resistance. While most issues remained unresolved, a few were escalated to higher management, demonstrating the potential of collective ‘border-breaking’ to disrupt platform bias and control.

Unlike traditional unions, Urban Company partners relied on informal collectivization through physical meetups at tea stalls or digital coordination via WhatsApp groups. However, this entrepreneurial solidarity was fragile. While initial resistance focused on improving working conditions and reducing the double ambivalence of gig work, it sometimes shifted to a broader fight against the platform itself and its merits. This shift often led to the collapse of solidarity, as the focus moved from worker rights to anti-firm resistance. Maintaining this balance – fighting for rights without alienating the platform – remains a critical challenge for gig workers organizing across borders.

Discussions

 Insert Figure 1 about here

Drawing from Katz (2004), Atzeni (2010), and Tassinari & Maccarrone (2020), solidarity emerges when a non-dominant group recognizes the social relations that oppress them and the mechanisms that obscure these relations. This study develops an integrated framework for entrepreneurial solidarity (Figure 1), highlighting how ‘border-keeping’ mechanisms – such as ambivalent marginality, algorithmic control, and socio-spatial atomization – act as both barriers and catalysts for mobilization (Bathini & Shalini, 2021; Soriano & Cabañes, 2020; Weisberger, 1992; Wells et al., 2021). These forces, which initially hinder collectivization, ultimately reinforce the need for workers to cross borders and organize against precarity. The journey toward solidarity begins with individual ‘border-crossing’, as workers recognize the need for entrepreneurial solidarity by building a resilient self – accepting job risks and increasing self-reliance – or engaging in micro-processes to circumvent platform constraints, such as developing personal client bases. However, individual agency often proves insufficient due to management indifference and the opaque algorithmic control, which infringes on workers’ autonomy. This insufficiency drives workers to collectivize, finding resonance in shared concerns and grievances.

Collective ‘border-crossing’ is facilitated by ambient socialities – ambient awareness (Leonardi & Meyer, 2015), ambient co-presence (Madianou, 2016) and ambient affiliation (Zappavigna, 2011). They cause the emergence of a collective identity that allows its members to be aware of each other’s concerns, stems from the co-presence of its members and affiliates itself with the larger idea of preserving the entrepreneurial self. On one hand, these socialities are facilitated by the existence of unmanaged phygital spaces, both physical (e.g., tea stalls) and digital (e.g., WhatsApp groups), that allow workers to share concerns, deepen bonds, and

form a collective identity. On the other, they are linked to one another through the logic-of-membership (Vandaele, 2021; Offe & Wiesenthal, 1980), that fosters ‘communities of struggle’ where workers bond and bridge across shared experiences (Morgan & Pulignano, 2020), directing themselves toward transformative change (Vandaele, 2021; Però, 2020), engaging in ‘border-crossing’ to resonate with the entrepreneurial identity through collective agency and organizing solidaristic action.

As embryonic solidarity transforms into active solidarity (Atzeni, 2010), workers resist forces that undermine their entrepreneurial solidarity. Proceeding at a collective scale and deeply conditioned by the workers’ ambivalent marginality, the entrepreneurial solidarity has the potential to “materially alter the conditions of people’s lives or disrupt exploitative hegemonic powers” (Wells et al., 2021). Consequently, this ‘border-breaking’ resistance can materialize as national strikes or protests, challenging the status quo and altering precarious work conditions (Shalini et al., 2021). However, the viability of work identity of these platform workers (Petriglieri et al., 2019) can undermine solidarity. Defined as “the perception that one has the ability, and will likely continue to have it, to produce the work that keeps one’s work identity going”, a viable work identity helps workers develop an internal equilibrium that withstands emotional tensions, such as anxiety from low ratings, and makes precariousness tolerable, reducing their motivation to collectivize. As the viable work identity helps the workers recognize the entrepreneurial self once again, they go back to individual ‘border-crossing’ by building the resilient self and engaging in micro-processes of working around the platform. This entire process is portrayed in Figure 1.

The study also highlights the gendered use of physical and digital free spaces. Female workers, balancing professional and caregiving roles (Bhatnagar & Rajadhyaksha, 2001), primarily relied on digital spaces for collectivization, while male workers utilized both physical and digital spaces. This disparity stems from women’s dual responsibilities, as after completing their jobs, they were expected to return home and fulfil their family roles such as taking care of children, cooking, and so forth – leaving little time for physical meetups. Digital platforms like WhatsApp offered a convenient way to discuss concerns and coordinate occasional face-to-face meetings. Male workers, with greater scheduling flexibility, engaged equally in both spaces. Future research could explore how intersecting social identities – such as class, race, and disability – shapes the use of phygital spaces and strategies for collectivization in the gig economy.

This study conceptualizes entrepreneurial solidarity as a process of individual and collective ‘border-crossing’, sometimes leading to ‘border-breaking’, where gig workers navigate and tend to disrupt the ‘border-keepers’ of ambivalent marginality, algorithmic control, and socio-spatial atomization to reclaim their autonomy. By leveraging phygital spaces, workers build collective identities and resist oppressive forces, transforming individual grievances into solidaristic action. The findings highlight the importance of ambient socialities and the logic-of-membership in fostering solidarity, while also acknowledging the fragility of such efforts in the face of viable work identities. This research opens avenues for further exploration of ‘border-crossing’ strategies in the gig economy, offering insights into how workers can challenge precarity and reclaim their entrepreneurial spirit. This study also offers several practical insights. Platform companies could support worker-created WhatsApp communities and physical rest hubs; design transparent algorithmic systems that allow human override or feedback loops; recognize solidaristic actions as legitimate expressions of worker concerns rather than breaches of protocol. Policymakers might consider supporting cooperative platform models or framing regulation that mandates fair algorithmic governance.

This study has several limitations. While this paper has focused primarily on internal worker dynamics who are in “the best position to describe their actual employment relationships”, the broader ecosystem – including clients, platform managers, policymakers and active leaders in large-scale protests – plays a significant role in shaping gig labour and could have provided deeper insights into solidarity movements. Most respondents had collectively visited the Urban Company offices to state their concerns, but were never a direct part of protests. Again, interviewing the partners over the phone furnished the author with limited information due to the barriers of trust. Future research should explore these interdependencies to present a more comprehensive understanding of platform governance and resistance. Moreover, while gender differences have been discussed, the roles of caste, class, and religion in influencing worker agency and solidarity require deeper investigation. The author acknowledges that the reliance on self-reported data from interviews, without triangulation through observational or platform-provided data, limits the scope of analysis. While the grounded theory approach suited the exploratory goals of the study, future work could incorporate ethnographic or multi-level methods. The researcher’s position as an academic outsider shaped both access and interpretation, and member-checking was not conducted due to the logistical and ethical constraints of working with a precariously employed population.

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Table 1. Participant and Interview Details

Participant Details			
Category of partners	Male	Female	Total
Lux	9	16	25
Prime	7	13	20
Classic	5	8	13
	21	37	58
Educational Qualification	Male	Female	Total
Under Graduation	2	4	6
Higher Secondary School	11	10	21
Secondary School	5	18	23
Discontinued	3	5	8
	21	37	58
Work Experience	Male	Female	Total
> 7 years	18	31	49
<= 7 years	3	6	9
	21	37	58

Interview Details		
In-person	Telephonic	Total no. of interviews
26	32	58

Figure 1. Integrated Framework of Organizing Entrepreneurial Solidarity through Border-crossing in App-based Platform Work

