LOCKED IN, LINKED UP: THE INTERPLAY BETWEEN PLATFORM DEPENDENCY,

SOLIDARITY AND COLLECTIVE ORGANIZING IN GIG WORK

by

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ABSTRACT

FRANTONY JEREMY LEWIS. Locked In, Linked Up: The Interplay Between Platform Dependency, Solidarity And Collective Organizing In Gig Work
(Under the direction of DR. ANNE KRONBERG)

This study addresses a gap in the existing literature on gig work collective organizing by investigating the factors that influence their interest in such collective actions. Drawing on the works of Tassinari and Maccarone (2020) and Schor (2022), the study focuses on the role of platform dependency and online communities in shaping the behaviors associated with collective action among gig workers.

I recruited participants via a combination of snowball sampling and purposeful online and offline methods. Semi-structured interviews were conducted via Zoom, involving 14 location-based gig workers. I analyzed the interview transcripts using a phronetic iterative approach. My findings reveal three distinct types of collaborators among gig workers, namely non-active collaborators, conditional collaborators, and active collaborators. Moreover, interviews shed light on how competitive pressure, manifested through aspects such as platform design features, platform dependency, toxic online groups, and distrust, can influence gig workers' engagement in collective organizing.

DEDICATION

I would like to dedicate this thesis to my advisor, Dr. Anne Kronberg, whose support and guidance have been instrumental in shaping the outcome of this study. Additionally, I extend my gratitude to my committee for their assistance and insights throughout this journey.

To my cohort, friends, and rugby companions, I am grateful for enduring countless hours of my research rants and discussions. And your patience and encouragement have been vital to my progress, especially when I broke my ankle.

Finally, I dedicate this work to the gig workers in our society, with a hopeful aspiration to contribute towards a more secure and stable future for you through the insights gained from this research

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CHAPTER ONE: INTRODUCTION

The gig economy has garnered significant attention as an increasingly prevalent means of meeting financial needs. Recent studies underscore the growing reliance on gig work for financial support. In 2017, the Bureau of Labor Statistics reported that 10.1 percent of gig workers depended on gig work as their primary source of income (BLS, 2017). A few years later, in 2021, Pew Research found that 58% of current or recent gig workers considered the money earned from gig jobs essential or necessary for meeting their basic needs over the past year (Anderson et al., 2021).

It is logical for gig workers to gravitate towards collective organizing. Unlike traditional employees, gig workers do not enjoy the same protections under labor laws or access to benefits, often enduring long hours for meager pay and lacking job security (Caza et al., 2022; Rosenblat & Stark, 2016). Precarity is a defining characteristic of gig work, where workers face a lack of bargaining power and cannot negotiate fair pay or favorable working conditions (Kalleberg & Vallas, 2018). Emerging literature indicates that gig workers are actively involved in various forms of collective action to improve conditions in the gig economy (Chesta et al., 2019; Heiland, 2021; Lei, 2021; Mendonça & Kougiannou, 2022; Tassinari & Maccarrone, 2020). Traditional modes of collectivism, such as demonstrations and unions, are observable in Europe and beyond. For instance, in Italy, activists, cognizant of the prevalent exploitation within platform companies, have taken to canvassing as a mode of protest (Chesta et al., 2019). Similarly, delivery workers in Spain and Chile have formed unions and orchestrated demonstrations across urban centers (Morales-Muñoz & Roca, 2022).

Gig workers perceive exploitation, which creates anger and frustration, and are powerful motivators for participating in collective organizations (Cini, 2022; Lei, 2021; Tassinari & Maccarrone, 2020; A. Wood et al., 2021). Tassinari and Maccarrone emphasize that gig workers ' solidarity emerges because of conflicts within the capitalist system, such as dissatisfaction with pay and job insecurity (2020). This solidarity is fueled by workers' discontent with how platforms operate, including issues like

low pay and a lack of transparency in management practices, often exacerbated by using algorithms to control workers.

However, solidarity may be challenging when opinions vary among gig workers regarding what issues are particularly problematic in their work environment (Hertwig et al., 2023; Svagan, 2023). Despite the general perception of the gig economy as precarious, some workers value the platform's flexibility in setting their schedules, and others are willing to overlook apparent concerns (Svagan, 2023). While a collective sentiment highlights concerns about platform transparency, pay, and algorithmic management, some workers perceive these highlights as inherent to the nature of the market rather than the fault of gig companies (Hertwig et al., 2023).

To address these conflicting perspectives, platform dependency may be an important factor influencing why gig workers participate in various forms of active collective organizing. Dependency is conceptualized as how much a gig worker relies on platforms to meet financial needs (Schor et al., 2020). Schor et al. (2020) highlighted that dependency could influence factors such as satisfaction with the platform, autonomy, and perception of precarity. However, there is still a significant gap in understanding how platform dependence shapes experiences of shared antagonism and precariousness among gig workers. For instance, Schou and Bucher (2022) revealed that solidarity among Upwork freelancers failed to materialize due to conflicting identities arising from various sources of antagonism, contrary to previous studies (Wood et al., 2021; Tassinari & Maccarrone, 2020). Thus, exploring platform dependence is not just a matter of academic interest but a necessary step towards understanding how the need for gig work, whether full-time or part-time, influences gig workers' intentions to foster solidarity.

Online communities function as a space for gig workers to air their grievances, find mutual support, and sometimes lead to collective protest (Cini, 2022; Maffie, 2020; A. J. Wood et al., 2019). Sharing grievances becomes a way for gig workers to identify shared sources of antagonism, thereby supporting the emergence of solidarity. However, conflicting articles demonstrate cases where solidarity fails to emerge in online communities. Schou and Bucher's (2022) study highlights concerns about the

role of online communities in shaping collective action intentions and demonstrates a lack of solidarity within a group of Upwork freelancers. Another study notes instances of highly experienced gig workers resorting to tactics like shaming or diversion when addressing questions from newcomers that could be answered within the group (Watkins, 2022). This raises questions about how online communities influence collective action, especially in the face of conflicting interests and grievances.

Therefore, this study aims to address two main research questions.[1]:

1. How does platform dependence influence the dynamics of solidarity and collective action in online groups of gig workers?

2. How do online communities impact collective action among gig workers amidst conflicting interests and exposure to grievances?

Using a qualitative approach, I interviewed fourteen gig workers to understand the influence of dependency on their decisions. Qualitative coding categorized gig workers into Active collaborators, conditional collaborators, and non-collaborators. Subsequently, I employed an iterative and sensemaking approach to develop a conceptual diagram mapping their stories and generating factors influencing their collaboration. This study identifies several factors influencing solidarity: platform dependency, toxic online communities, platform design, and perceived competitive pressures.

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[1] Please note that in this context, online communities refer to groups that exist within virtual environments. It is important to differentiate this concept from platforms, which are associated with the platform business model adopted by companies in the gig economy. For a more comprehensive exploration of platform business models, we recommend referring to Vallas and Schor's publication from 2020.

CHAPTER TWO: LITERATURE REVIEW

Precarity in Gig Work:

Gig workers often grapple with less control over their schedules and may find themselves working longer hours to compete effectively on platforms (Glavin & Schieman, 2022; Griesbach et al., 2019; Jarrahi et al., 2020; Rosenblat & Stark, 2016). This situation engenders precarious working conditions, compromising workers' rights, safety, and ability to earn a living wage.

In this emerging "digital workplace," the precarious nature of employment perpetuates a power imbalance (Gandini, 2019). Gig workers, typically classified as independent contractors, lack the protections afforded to traditional employees under labor laws (Chen, 2016). Consequently, they often find themselves without essential benefits like health and unemployment insurance, rendering them vulnerable to on-the-job complications. This lack of protection diminishes their bargaining power. It leaves them at the mercy of platform companies, which can unilaterally alter rules and regulations without informing gig workers, resulting in information asymmetry (Griesbach et al., 2019; Jarrahi et al., 2020). For instance, delivery platform companies frequently update algorithms or app features without adequate communication, leading to a sudden decrease in earnings for delivery drivers when transitioning from a piece-rate system to algorithmic pricing.

Solidarity and Collective Action in the Gig economy

In the gig economy, solidarity becomes vital in countering individualization and fostering a collective identity (Tassinari & Maccarrone, 2020). Solidarity arises through shared experiences and meaning in work, mutual dependency, and a sense of collective identity (Atzeni, 2009). I conceptualize solidarity, as defined by Tassinari and Maccarone (2020), as a "condition whereby workers develop collective feelings of reciprocity and responsibility towards one another based on an awareness of their shared interests and purpose' (p.40).

Tassinari and Maccarrone (2020) developed a model to explain how active solidarity forms in gig work. They purport that, first, gig workers recognize the "source of antagonism in the labor process" (p.49). This concerns dissatisfaction with pay, arbitrariness of managerial control, or insecurities and uncertainty with earnings. Next, they explain the factors shaping the expression of solidarity, including "common facilitating factors" like 'free spaces,' and framing of collective identity as workers; "Common obstacles" like high turnover; and "contextual enabling factors" such as local social movement spaces. Lastly, these factors lead to the "possible forms of expression of solidarity," such as simple acts of sharing resources, practical help, low-risk participation in collective action, or visible forms of collective action, like public demonstrations.

Tassinari and Maccarone's (2020) work expands the scope of solidaristic activities available to gig workers, encompassing various forms of support and organization, not just unionization. In addition to traditional methods like strikes or protests, gig workers can engage in mutual aid and help their fellow workers via active solidarity (Tassinari & Maccarrone, 2020). Collective action, which involves coordinated efforts for strikes and protests, extends beyond large-scale demonstrations. Gig workers can actively participate in solidarity-building activities that empower the collective, which are more discrete and less evident than large-scale protests. This is invoked by having the collective feeling associated with active solidarity. This broader perspective recognizes that active solidaristic activities encompass collective action and everyday forms of resistance rather than being limited to large-scale demonstrations alone. The following section will explain factors shaping solidarity and collective action in the gig economy.

Online Spaces as communities of support for solidarity

Likewise, a common facilitating factor that brings gig workers together is spaces to connect, such as online communities. Online communities have become crucial in providing gig workers a platform for fostering solidarity. Maffie's (2020) qualitative data reveals that these digital spaces enable gig workers to engage in communal activities, rituals, and the development of collective norms, fostering social bonds

that extend to offline meetups. Significantly, frequent social interactions within these digital realms correlate with more positive views on unions and an increased interest in labor associations (Maffie, 2020). Without a shared physical space, gig workers turn to online communities to address conflicts on the platform and cultivate community and social bonds. Numerous studies emphasize the importance of gig workers using these virtual spaces to share grievances, seek advice, and find a sense of community (Wood et al., 2019; Tassinari & Maccarrone, 2020; Maffei, 2021; Woodcock, 2021, p.71), creating groups based on occupational identities or regions.

Digital technologies provide affordances contributing to gig workers' solidarity and collective organizing efforts within online communities (Maffie, 2020; A. J. Wood et al., 2018; Zhou & Pun, 2022). Zhou and Pun (2022) extend previous discussions on the interplay between technology and solidarity (Maffei, 2020), presenting a theoretical framework that explores how digital tools intersect with workers' agency to foster or impede solidarity and collective action in on-demand work settings. Through their study of Didi workers in China, similar to Uber in China, they demonstrate how platforms such as social media chats (e.g., e-telegram, WeChat) and online forums serve as crucial avenues for mutual support and solidarity-building. Zhou and Pun (2022) argue that these technologies afford workers opportunities for association, discourse, and mobilization, enabling them to connect, form collective identities, and coordinate protests effectively. Interactions within these digital spaces create valuable opportunities for gig workers to exchange information and support one another (Wood et al., 2018). Thus, online spaces play a crucial role in nurturing interest in collective organizing and act as foundational elements for gaining momentum toward offline actions.

Online spaces as the center of conflicting interest

Supportive communities are argued to be a "precondition for collective action" (Atzeni & Cini, 2023). Atzeni and Cini (2023) propose that supportive communities are critical to the solidarity and mobilization of gig workers. In a critique of mobilization theory, Atzeni and Cini (2023) highlight how their external environments influence workers' beliefs and practices, emphasizing the role of communities

in mobilizing workers. They suggest that "communities have played a key role in helping workers develop *a feeling of mutual identification, which is a precondition for collective action to occur"* *(original).* Online communication allows gig workers to reach a broader audience and organize large-scale actions (Chesta et al., 2019; Heiland, 2021; Mendonça & Kougiannou, 2022; Tassinari & Maccarrone, 2020). For instance, during the 'Snow Strike' in Europe, gig workers coordinated a collective log-off across multiple platforms like Deliveroo and Eats, displaying the power of online spaces for mobilization (Chesta et al., 2019). Chesta et al. (2019) noted that social media and digital technologies offer cost-effective ways for gig workers to connect and coordinate. These "virtual walls" of digital spaces become the planning grounds where gig workers coordinate efforts that manifest into offline protests (Heiland, 2021; Chesta et al., 2019).

Online spaces serve as platforms where gig workers often express their grievances and frustrations regarding the dynamics of the gig economy (Cini, 2022; Lei, 2021; A. Wood et al., 2021), thus c. These online communities enable gig workers to connect and share their concerns openly. Within these communities, a shared sense of injustice regarding poor working conditions in platform-based work emerges. Wood et al. (2021) conducted a study on platform exploitation. They found that many gig workers expressed anger towards the platforms, which was positively associated with support for collective organizing. As a result, gig workers share a similar source of antagonism and interest in organizing and building solidarity.

In contrast to other studies showing how gig workers develop solidarity in online spaces (Tassinari & Maccarrone, 2020; Maffei, 2021), Schou and Bucher (2022) brought to light conflicting perspectives within an online group of Upwork freelancers, demonstrating solidarity failing to emerge. Schou and Bucher (2022) studied the different perspectives of freelancers on the change in connecting policy by Upwork. Top-ranked freelancers, who 'saw themselves as entrepreneurs' (p.13), did not feel exploited or mistreated by Upwork by the policy and instead viewed it to get rid of "shit-tier people." High-ranking freelancers showed a keen interest in minimizing competition and were willing to pay

higher fees to weed out "lowballers" on the platform. On the other hand, freelancers who consider themselves 'employees' feel exploited and are a source of labor sold by Upwork. These people were more interested in building solidarity to push back against the perceived injustice than entrepreneurial-affirming people. The divergence in identities between high-ranking and low-ranking freelancers contributed to a divided perspective on the antagonisms experienced on the platform.

Furthermore, negative discourse in online groups may be disruptive to building solidarity. As earlier articles mention, gig workers often gather in online spaces to engage in information sharing or seek information (Tassinari & Maccarrone, 2020). Watkins (2022) explores how gig workers discuss scams and analyze the role of these discussions in shaping their community of practice. The analysis revealed that talking about scams allows workers to establish a sense of belonging within their community. Watkins found that the less and infrequent responses were empathy and respect. However, workers tend to belittle scam victims, attributing vulnerability and unfamiliarity with the forum to a lack of authentic group membership. Those seeking digital communities and support may be greeted with shame and derision, potentially making them reluctant to participate in the community.

This raises concerns about the role of conflicting interests and exposure to grievances impacting collective organizing intentions, particularly within online groups. One goal of this study is to explore conflicting interests among gig workers. While previous literature highlights different interests, it remains unclear how gig workers navigate these interests within online groups. One might assume that gig workers in online groups share similar perspectives, as they often utilize these platforms for mutual aid and day-to-day support in navigating complex situations. Therefore, this study aims to investigate the role of supportive communities in shaping collective action intentions. The guiding question to explore this phenomenon is:

Guiding Question #1: *"How do online communities influence collective action intention amongst gig workers in the presence of conflicting interests and exposure to grievances?"*

Role of platform Dependence in collective organizing

 Another challenge to building solidarity is gig workers sharing a mutual interest and desire for change. Schor et al. (2020) sought to understand gig workers' perspectives by looking at their dependence on gig work as a source of income. Those classified as dependent earners, primarily reliant on the platform for their primary income, reported heightened job insecurity, precarity, dissatisfaction, and a perceived lack of flexibility to decline job assignments. On the other hand, non-dependent earners reported higher satisfaction levels, increased wages, and a greater sense of control over accepting or declining assignments. A small percentage of gig workers participate in the gig economy as their primary source of income (Broughton et al., 2018).

 Few studies have addressed outcomes related to platform dependence. For example, relying heavily on the platform for income can lead to adverse outcomes, as observed in an exploration of job quality in Scotland (Myhill et al., 2021). They found that gig workers dependent on gig work for their primary income were more sensitive to wage fluctuations. Building on Schor et al.'s (2020) work, Glavin and Scheiman (2022) explored the relationship between mental health and platform dependence. Using the Job Demands and Resources theory framework, they discovered that dependent workers experienced higher levels of distress and financial strain than secondary platform workers and those not engaged with platforms. This suggests that dependent workers face increased economic vulnerability, raising concerns about job security and employment.

 This insight suggests that the level of dependence on a specific platform may influence a gig worker's shared sense of purpose and grievances. The level of dependency among gig workers could significantly impact their perspectives on injustices within the platform. Wood et al. (2021) assessed freelancers on platforms such as Upwork and PeoplePerHour, revealing a correlation between dependency and support for organizing. However, it is essential to note that freelancers and location-based workers represent unique populations with similar yet diverse experiences. Additionally, gig workers operate within the same precarious environment, often described as a "race to the bottom." This

implies that dependent and non-dependent workers may perceive gig work differently and potentially develop solidarity in distinct ways.

While existing studies have highlighted how dependency among gig workers can lead to divergent interests and attitudes toward platforms, the extent to which these differences influence their intentions for collective action remains unclear. Hence, it is crucial to investigate how varying levels of dependency impact their inclination toward online community building or collective action. Dependency might shape the frame from which you view the platform's injustice. Building on Tassinari and Maccarone's (2020) call to investigate individual-level characteristics of gig workers in shaping collective identity, this study aims to explore the role of platform dependence in shaping solidarity. Individual-level characteristics can affect how likely they are to develop a collective identity and their interest in pursuing collective organizing opportunities if they only perceive the platform as supplemental income and, therefore, can leave it whenever they want to avoid precariousness. Therefore, this study aims to address the second guiding question:

Guiding Question #2: *"How does dependence influence solidarity dynamics and collective action intentions in online groups of gig workers?"*

CHAPTER THREE: METHOD SECTION

I intend to gain insight into the motivations and beliefs influencing gig workers' desire for collective organizing. With gig workers having vast backgrounds, I aimed to understand their stories and experiences and map how these experiences led to their interest or lack of interest in collective organizing. To accomplish this, I use a sensemaking approach to piece together the unique experiences of gig workers. A sense-making approach to analyzing qualitative data involves interpreting and understanding the data by making sense rather than relying solely on predefined frameworks or theories (Naumer et al., 2008).

I used a semi-structured interview approach to make sense of the data. Semi-structured interviews offer flexibility in adapting the interview guide based on the flow of the conversation (Wilson, 2014). They also allow for understanding diverse perceptions of a phenomenon from participants, where free-flowing dialogue allows participants' experiences to shape how questions are asked (Tracy, 2019). I use open-ended and probing questions to explore the reasons and mechanisms behind the response (Adams, 2015). This approach is optimal for interviews with gig workers because I expect their backgrounds will shape their attitudes and motivations for pursuing community and collective organizing.

I conducted fourteen semi-structured interviews, ranging from 30 minutes to 105 minutes. Interviewees had diverse backgrounds. Some had extensive histories leading to gig work, while others pursued it solely for supplemental income, as illustrated in Table 1.

Table 1 here

"Table 1: Demographic Data of Gig Workers (N=14). Participants recruited through purposeful and snowball sampling, meeting criteria of 20+ hours/week on food-delivery apps, U.S. residency, age over 18, and recent gig work experience. Data includes ethnicity, gender, level of collaboration, and recruitment source."

Data Collection

The initial strategy involved recruiting participants through purposeful sampling, guided by specific criteria: A) spending at least 20 hours per week on the platform, B) active engagement with a food-delivery-based app (e.g., Instacart, Grubhub, Doordash, UberEATS, Sparks, etc.), C) residency in the United States, D) age over 18, and E) did gig work within the last year. Twenty hours was selected as the minimum because Pew Research on the state of the gig economy suggested that 41% of their respondents worked less than hours, 29 worked 10-30 hours a week, 9% worked more than 30 hours a week, and 23% only did the job occasionally (Anderson et al., 2021). Less than ten and more than 30 hours would have reduced the population and the variation of part-time and full-time workers. The decision was to meet in the middle and consider participants who had worked gigs for 20 hours or more. If the prevailing evidence suggests that more time on the platform may be associated with a heightened sense of precarity, Schor et al. (2020) determined that 20 hours or more could capture a variation in the perceived precarity.

I made the screener survey using Qualtrics. Data collection occurred between April 2023 and October 2023. I posted the screener on Reddit, considering it an optimal choice due to participant anonymity and the frequent presence of gig workers on online platforms for sharing grievances. However, 5 (r/UberEATS, r/Lyfdriverst, r/Doordash_drivers. r/Teleworkers, r/gig) work-specific subreddits denied my request to post the screening survey. Despite successfully posting it to one subreddit, responses were negative, with a significant portion coming from bots or scammers. Unable to verify the identity of respondents, I decided not to include participants from Reddit.

Turning to Facebook, I sought participants by posting calls in various public, private, and region-specific groups. To enhance credibility and transparency, I posted with my personal social media account, provided an introduction, and attached my LinkedIn profile. Eventually, one private and one public group allowed me to post after gaining moderator access. These groups, with 6.7k and 2.1k members, respectively, were a general gig work group on the East Coast and a regional Uber/Lyft Drivers group on the West Coast. I communicated with administrators for permission and requested formal announcements

to build trust. Despite receiving 1.9k responses, many were ineligible due to bots and scammers, a challenge that some gig workers speculated could be intentional sabotage by gig work companies. Only six participants could be verified, completed the survey, and attended the Zoom meetings. Additionally, I recruited four participants via a UNCC listserv.

Another goal was to use a maximum variation strategy to recruit participants not associated with online groups, assuming they might offer different perspectives on collaboration. Employing a snowball sampling method, I contacted peers, posted on personal social media, and sought permission to post signage at pick-up locations. Despite minimal response and my signage being prematurely removed, I eventually connected with four gig workers through friends and colleagues.

I interviewed fourteen participants via Zoom and transcribed them using Zoom transcription software and Otter AI. Participants were allowed to use video if preferred, while I saved audio recording for transcription. Interviews lasted between 30 minutes to 105 minutes. Of the fourteen participants, ten were white, and the remaining individuals represented a diverse mix of ethnicities, including Korean, Hispanic, and Black. Most participants were male, comprising eleven out of the 14. Participants exhibited a wide range of experience on the platform, with durations spanning from 8 months to 10 years. Interviewees had diverse backgrounds, some with extensive histories leading them to engage in gig work, while others pursued it solely for supplemental income, illustrated in Table 1. I also include where I recruited each participant. All participants were involved in location-based gig work, often engaging with multiple platforms simultaneously. To express gratitude for their participation, I gave each participant a $20 Amazon gift card after their interview.

Data Analysis

I analyzed the data using a methodology called phronetic iterative analysis (Tracy, 2018). This approach allowed me to examine the data in inductive, deductive, and abductive ways (Tracy, 2018). Initially, I started by performing primary cycle coding, where I looked for new ideas and meanings that emerged from the interviews. I also analyzed the participants' language and assigned codes accordingly.

As I progressed, I began comparing my findings to existing literature, noting both commonalities and differences. I adjusted my interview guide when unexpected concepts surfaced. Additionally, I categorized the data further using secondary cycle coding. This involved assigning distinct codes to the information, either by using pre-existing theoretical concepts or generating my own. Some codes were placed in a miscellaneous folder for future reference. Throughout the process, I constantly compared and refined the codes, especially as I made modifications to the interview guide during the pilot testing phase. In **Table 2**, you can find the second-order dimensions that emerged from the secondary coding.

To establish rigor and credibility, I also conducted a negative case analysis (Tracy, 2018) to reinforce the strength of my findings. I aimed to identify participant responses that contradicted my initial conclusions drawn from the data. One participant had a relatively positive perspective on gig work, which contrasted with the general perception that gig work is unfair or precarious.

Lastly, as part of my data analysis, I wrote detailed theoretical memos (Tracy, 2018). These memos helped me comprehend the codes and the apparent relationships between them. I also spent a significant amount of time discussing these relationships and codes with my peers, seeking to unravel the underlying complexities. I explored theories such as Mobilization theory and other collective action-oriented theories. Over time, my theoretical memos started to form a conceptual diagram. I consistently iterated between the conceptual diagram and the theoretical memos, engaging in conversations with my peers until I created a representative diagram that accurately depicted the relationships within the data.

Table 2 here

Interview Guide

The initial interview guide consisted of fourteen questions across five significant dimensions. The five dimensions asked in order were "Experience Working as a Gig worker," "Reflection on Challenges as a Gig worker," "Social Identification," "Group Factors," and lastly, *"Individual/Collective Resistance."* The goal was to begin with easy questions that built a rapport with

the participants and ask probing questions about how often they may encounter or interact with other gig workers and how they find themselves doing gig work. While some engage in gig work as supplemental income, I expected this first dimension to separate individuals who do it full-time versus part-time.

Next, I dove into asking participants about their challenges during gig work. The goal was to unearth some challenges or concerns they experienced during gig work and some of the things they enjoyed the most. For example, I asked participants, "What are your two most favorite things about working as a courier?" and asked them, "What are your *two least favorite things about working as a courier*?" I asked participants, *"Have you ever felt taken advantage of or undervalued as a gig work?"* Of course, I employed probing questions to investigate who they felt was the cause of feeling undervalued or taken advantage of.

After understanding their challenges, I sought their social identification with gig work. Specifically, I wanted to know if gig workers saw themselves as different or like other gig workers. The rationale is that gig workers' identification with the work could influence their motivations to engage in collective organizing or build solidarity with other gig workers. In this section, I asked participants, *"Do you see yourself as similar or different from other couriers?"* and "Do you feel a sense of belongingness with other gig workers?"

Motivated by the disagreements I noticed in gig work group chats, I included a section that focused on perceived larger group goals and whether individuals had dissenting opinions about those goals. Based on my first three interviews with gig workers on the West Coast, it became apparent that not all gig workers share the same opinion about using gig work. Some participants saw nothing wrong with it, especially with being at the center of Prop 22 legislation. To better understand what participants disagreed with perceived significant group goals, I asked, "In your experience as a gig worker, have you noticed any common goals that gig workers collectively strive for in improving their working

conditions?" "What are your individual goals?" and "Do your individual goals conflict with group goals?"

Lastly, I was interested in their strategies to optimize individual experience on the platform or collective organizing opportunities. In this section, I initially started with "*What strategies or techniques do you use to optimize your experience while working on the platform?" "Have you ever collaborated/cooperated with other gig workers to optimize your experience on the platform?" and "Have you actively sought out or engaged in any efforts to advocate for better working conditions for gig workers?"*

Chenail (2011) suggests using the first couple of interviews to pilot the interview guide. Appendix A shows the revised interview guide after many iterations, accompanied by probing questions to facilitate deeper exploration. I conducted interviews with the first five gig workers to gather initial data. These interviews formed the basis for an open coding process, where I identified recurring topics related to barriers in interacting with other gig workers and experiences within online communities. After each interview, I drafted memos documenting noteworthy aspects of my interactions with participants, including any surprising or unexpected occurrences. Throughout this process, I encountered instances where specific questions yielded unexpected opinions. Consequently, I adapted and streamlined the interview guide, reducing it to eleven pertinent questions. Importantly, I asked demographic questions at the end of each interview.

Method limitations and potential bias:

Several challenges in data collection demand attention. Firstly, I encountered significant difficulty in online recruitment due to the prevalence of bots and scammers. Despite posting the study in various groups, I received hundreds of responses. However, looking at the IP addresses, it became apparent that most participants were not in the U.S. Moreover, most responses contained ineligible information in the email and name fields.

Posting in either private or public groups did not alleviate these issues. Initially, I presumed that accessing a private group, implementing a password for the survey, and including a bot check would deter bots and scammers. However, this approach proved ineffective. Even within private groups, community members expressed reluctance to participate in the survey despite receiving approval from the community moderators. Additionally, some individuals made deceitful comments, discouraging others from taking the survey. For instance, a commenter in the West Coast chat claimed they had completed the interview but never received the $20 compensation. Similarly, a member of the East Coast group commented "Fake" using a GIF, indicating that I might be a scam. Such incidents suggested that people were actively attempting to sow distrust. One interviewee even mentioned the possibility of Uber having "spies" in the groups. While I cannot verify the accuracy of this claim, it did seem suspicious.

Due to the issues with bots and scammers, an inadvertent selection bias emerged. Scammers utilized first and last name combinations that closely resembled legitimate ones. Consequently, non-scammer participants may have been overlooked because their names resembled those of scammers. I implemented several measures to mitigate fraudulent responses (Teitcher et al., 2015). One strategy involved adding a password to the study, requiring participants to contact me for the code before gaining access. However, this inconvenienced eligible participants who had to complete an additional step. The most effective strategy I employed was checking the IP addresses of survey respondents. Fraudulent respondents often use fake IP addresses to conceal their actual location. Consequently, I automatically removed any respondent with a duplicate IP address from the data pool.

Reflexivity

I want to briefly discuss my reflexivity in the research process. As emphasized by other qualitative researchers, reflecting on the role of the researcher and how it influences the social interactions between myself and participants is crucial for understanding how I conducted data collection, analyzed the data, and shaped my interview guide.

Initially, I realized that the $20 incentive offended gig workers. Hourly wages for gig workers are volatile. While some may make a higher income per hour, drivers earn a wide range of wages (Zipper et al., 2022). I thought compensation would be ideal to support drivers surrendering an hour of their time. My advisor graciously offered me some funding, and I pressed forward with data collection.

The reality of my folly soon came to a head. I first posted to Reddit. I was excited, gleeful, and eager to support the community. I offered an incentive because gig work is considered precarious, and I anticipated financial barriers that might deter participation. I did not expect the amount of vitriol I would receive as compensation. Some of my favorite comments from the Reddit posts included:

> "Twenty is low for the amount of time you want. The "going rate" is about 40-50 for a half-hour interview, and it was a cute Asian chick who gave it last time." - Reddit Stranger 1

Or

> "Jesus Christ. 🤦 we are already complaining about how bad the apps pay and how bad people tip. I highly doubt anyone will do it for $20." - Reddit Stranger 2

Perceiving this setback as a stroke of bad luck, I attempted to shake off the negative attitude held by the Reddit community. Reluctantly, I embarked on a journey to persuade fast-food restaurants to display a flyer for my study. I was surprised by the number of rejections I faced. Eventually, I was gratefully accepted by one location. With pride, I slipped my flyer into a plastic holder and set it up on a shelf where Doordashers and Uber Eats drivers pick up to-go orders. I was confident they would see it; there was no way they could miss it.

I eagerly awaited the flood of participants. I genuinely felt excited at the prospect of contributing positively to the community. My excitement peaked when I received a handful of responses to the survey. While a couple were not eligible, there were a few who were. However, in addition to the challenge of reaching this population, I also encountered difficulties getting participants to schedule and attend meetings.

One such interaction occurred while I was trying to set up a meeting. I was heavily involved in an internship then, so my availability was primarily on weekends. However, I assured participants that I would adjust my schedule to accommodate them. Here is an example of one such interaction:

Insert Figure 1

Figure 1: The above depicts a conversation I had with a potential participant

As a graduate student with ambitious dreams and a strong desire to positively impact the gig work community, I was disheartened. Reflecting on my experiences with my advisor helped alleviate some negativity from the comments and pushbacks. My many conversations with colleagues and peers about the "rude" interactions only fueled my interest. My focus shifted to exploring how the negative discourse in online spaces might influence gig workers' experiences with solidarity and collective organizing. A recent publication by Atzeni and Cini (2023) underscored the importance of supportive communities as a vital component in this new era of fragmented organizing. Therefore, I ensured that my interviews included probing questions to understand whether participants were aware of disagreements or negative experiences in online groups and how these factors might shape their solidarity and interest in collective organizing.

CHAPTER FOUR: RESULTS

I began analyzing the data using first-order coding, examining the content to identify patterns. I referred to the interview transcripts during this analysis, comparing my findings with existing literature to identify commonalities and disparities. I employed axial coding to establish connections and relationships between different codes. I also used a constant comparative analysis method (Tracy, 2019) to iteratively refine existing and newly developed codes, particularly as I modified the interview guide during the pilot testing phase. Table 2 below illustrates the second-order dimensions I generated during axial coding.

I returned to the literature and drew inspiration from recent literature, especially of Schor et al. (2020), to frame the experiences of gig workers within the context of economic reliance on platforms. This approach also required relevant concepts such as solidarity and perceived community support. I developed a path model to explain how solidarity and community support influence participants' engagement in collective organizing efforts.

Types of collaboration

I interviewed participants using a wide variety of collaboration approaches. Each interviewee was assigned a type of collaboration based on their experiences with (or lack of experience with past collaboration) or whether they currently collaborate with their gig workers. Three distinct types of collaboration are identified: active *collaborators*, *conditional collaborators, and non-active collaborators.*

Active Collaboration:

I characterized active collaboration as individuals seeking opportunities to engage and exchange knowledge with fellow gig workers. They proactively pursue chances to collaborate and are willing to contribute their skills, expertise, and resources to achieve common goals, irrespective of the prevailing instability within the gig work environment.

For instance, some gig workers participate in online groups that occasionally meet in person to address upcoming legislative opportunities or laws they should support or oppose through voting. This

was particularly prominent among California gig workers, who keenly felt the impact of Prop 22. During these Zoom meetings and in-person gatherings, gig workers discuss how to enhance the gig work community. Quinton, when asked about his experience with collaborating with other gig workers, articulated:

> "Facebook group that we are in for Uber drivers in Los Angeles, the club, the contributor, or the collaborator over the one that moderates there, I did with him, we went to his little office where many drivers get together, you know, and trying to do petitions, you know, signed petitions, come out with a better system of what we could do. And then we have these kind of Zoom calls, just like what we are doing right now, we do a Zoom call, to say, look, you know, this prop is coming up this time, you know, everybody listened to it. Be sure to, you know, not vote for this or whatever." Quinton

Other gig workers in this study, like Quinton, frequent online group discussions. Virtual platforms, like Reddit and Facebook, have many groups where gig workers can find a home. Individuals like Geno, Quinton, and Ellis engage in online discussions with community members, offering support, sharing knowledge, and being active. Furthermore, these gig workers actively seek opportunities to transfer knowledge and assist others in learning how to navigate the platform. Interacting with fellow gig workers has become essential for their platform proficiency and ensuring others can navigate the platform's complexities. For instance, Geno reminisces about his earlier years as a gig worker and how his relationships with other gig workers provided opportunities for knowledge sharing:

> "I gathered with a group of friends that I met at the airport in SFO, San Francisco, and we all met up, and they were nice to help me out. And then we eventually became friends. It also helped me learn how to use the app completely from scratch. For example, how do you log in? How do you log out? How do you reset your password? How do you change your email? How do you update your information? How do you update the vehicle that you are driving? What kind of services do you want to write?" Geno

Conditional Collaborators

This type of collaboration falls into a middle ground. Individuals are not as enthusiastic as the first group but are willing to collaborate if specific conditions or opportunities align with their interests or needs. Conditional collaborators weigh the cost of participating in collective organizing opportunities and are open to collective organizing when circumstances are favorable.

Some drivers would be willing to participate in organizing but may be dissuaded by the lack of organization present. Adam, who is retired and engages in gig work part-time, when asked about participating in collaborative actions, mentions, "So, like, if someone posted for the rally and we are not going to work next week, I would do it, I would not work, you know, just to help." However, he later states that getting others to collaborate is difficult because they are "so unorganized" and "there is no leadership." Adam is interested in collective organizing but is disenchanted by the amount of potential turnout and lack of leadership. He would be more likely to participate in collective opportunities if conditions were more optimal.

Collaboration in this category may consider their interests or needs. An example is Logan, who initially emphasized the importance of collaboration by "resetting their expectations" in an online group. Members would share screenshots of negative experiences or ask questions about increasing their earnings, and he would willingly provide information on how to do so. However, Logan drew the line when it came to disclosing new opportunities for making money:

> "I have withheld that because I am still waiting for Gopher to properly set up their referral network with points and whatnot. So, my thought process is that I do not want to refer people if I am not even going to get anything out of it. And they are going to be coming to eat my lunch."—Logan.

Gopher is another food delivery service platform that caters to a specific geographic area. While anyone can create an account on Gopher, the platform is not as widely recognized as some competitors. When asked why he refrains from sharing information about Gopher, he explains, "I just do not want to. If I were to talk about Gopher, 20 or 30 of those people might sign up for Gopher, which would make it

more challenging for me to get orders." In this scenario, sharing information about Gopher is not in his best interest financially, so he chooses not to do so.

Personal interests and considerations often hinder determining one's interest in large-scale organizing. As expressed by one participant, Quinn, during discussions on collaboration concerns and apprehensions, stated, "If there were unionization efforts, then I might join, you know, I do not know. It depends on... what the demands are and if what they are advocating for also aligns with my experiences. However, I would not want to fight for something that would actively make my situation worse." This sentiment resonates with the broader group, depicting their concerns regarding the capabilities and goals of collaborative groups.

Non-active collaboration

Lastly, some individuals display disinterest or even opposition to working with others. They tend to avoid collaborative efforts, often driven by personal preferences, past negative experiences, or the belief that working alone is more effective. Furthermore, there is a skeptical atmosphere surrounding the effectiveness of collaboration, as many of these individuals admit to having a limited understanding of the broader societal issues associated with gig work beyond their own financial needs. These individuals primarily focus on self-preservation and lack interest in collective action.

These individuals mention having "secrets" they are unwilling to disclose to other drivers. To them, these secrets serve as a competitive advantage, enabling them to optimize their earnings on the platform. During one interview with a driver named Trinity, she avoided sharing her secrets, even with me. When asked about hidden tips, she acknowledged having them but followed up with, "So, tips that I do not share with other drivers, I cannot share with you." I reminded her that the interview was confidential and that her responses would not be traced back to her. She still refused to share her secrets with me.

Secrets serve as a competitive advantage for gig workers, enabling them to optimize their earnings and enhance their overall gig work experience. Another driver, Gilda, expressed similar

sentiments regarding sharing secrets with other drivers. Gilda, who belongs to Quinton's Facebook group, expressed frustration with fellow drivers' reluctance to share their secrets. She considers these secrets competitive, noting, "We are all trying to make money. And some people do it full time, so they don't want to share what they've learned." Gilda also mentioned that she does not share her secrets, and even when communicating privately with other drivers, they do not share theirs either. These gig workers highly value secrets and refrain from sharing them, as they may improve or optimize their earnings on the platform.

Conceptual Diagram: How dependency influences solidarity and collective organizing

Figure 2 here

"Figure 2 illustrates a causal model explaining factors driving gig workers to pursue collective organizing, highlighting the roles of platform dependence, competitive pressure, and solidarity."

Figure 2 demonstrates a causal model that seeks to conceptualize and explain what factors are driving gig workers to pursue collective organizing. I will first briefly discuss the relationships between the concepts in the figure above and then dive into a deeper analysis of the diagram. This study identifies a positive relationship between platform dependence and interest in collective organizing. The study also asserts two mediators in the relationship between platform dependence and interest in collective organizing: Perception of competitive pressure and solidarity.

Dependent gig workers expressed more solidarity than their non-dependent counterparts. Part-time drivers, who are less reliant on the platform, often display limited solidarity with their peers and are hesitant to participate in collective action. Their reduced engagement stems from a perception of gig work as supplemental income, granting them the flexibility to disengage from the app at will. Consequently, they may have more specific needs that must be addressed before committing to collective organizing efforts, especially when they lack solidarity with fellow gig workers (e.g., conditional collaborators).

Additionally, for drivers heavily dependent on the platform, solidarity expression is not guaranteed, particularly under the weight of competitive pressures; the analysis extends to two factors influencing the perception of competitive pressure on gig platforms: platform design and toxic online

discourse (TOD). Platform design contains elements such as replaceability and sowing distrust, which contribute to this pressure, while TOD exacerbates it through exposure to negativity and conflicts within online groups. This discussion sets the stage for exploring the final connection in the diagram—the relationship between competitive pressure and solidarity. Gig workers perceiving intense competition are less likely to experience solidarity.

In the next section, I will illustrate and further explain the relationships using interview data and my analysis.

Factors influencing cooperation

This section discusses distinct categories that emerged as essential in shaping drivers' inclinations for collective organizing. These categories include the driver's dependency on gig work as a source of income, solidarity, Platform design, and toxic online discourse.

Dependency

Those with a higher degree of economic dependence on the platform expressed greater interest in engaging with collective organizing initiatives, particularly active collaborators. For example, Tommy is an active collaborator and full-time gig worker. During our discussion of the gig work experience, he mentioned that it is extremely difficult to be motivated to work on the platform with all the uncertainty and that it made him "kind of depressed about it, especially if that is your only form of income because that is what it was for me for a while." Tommy is financially dependent on gig work and explains how he sought different ways to improve the gig economy by signing petitions.

Another active collaborator, Quinton, was an apparel business owner in 2016, but due to external factors, he had to seek out other forms of employment. Shortly after closing his apparel business, he found gig work within the same year. He stated he made between 128K and 243K in his first year of gig work. However, economic conditions have changed to where "before you can easily make $300 per weekday. Now it is hard to make $200 in your total shift." Now that he depends on gig work for his livelihood, he has made many efforts to improve the community. He actively participates in collective

efforts to vote for legislation that would improve gig work, but he admits that this line of work is not the end-all for him.

Respondents who expressed lower economic reliance on the platform demonstrated a decreased interest in participating in collective organizing opportunities, as evidenced by the attitudes of non-active and conditional drivers. These categories also mainly consist of part-time drivers. For example, Kyo is a non-active participant and works part-time as a gig worker. When asked about their stance on engaging in collaborative opportunities, he states, "If it comes down to statistics, only a small percentage of my income comes from door dashing. So, it's not like I'm going to give my focus or most of my energy to that, obviously, what I'm going to give my focus and my energy to as my primary source of income."

Kyo is one of many who share this mindset. With gig work not being a primary source of income, dedicating time and energy to fixing already challenging obstacles may be daunting. Another non-active driver, Gilda, also explained: "And other people decided that, you know, they decided that they wanted to do a full-time job. So, they have a right to complain, but I just never looked at it that way. I just always looked at it to supplement my income as an opportunity to supplement, you know, work that I already had, that is more stable." When prompted about his interest in a union, Quinn, a conditional collaborator and part-time worker with full-time employment elsewhere, stated, "I mean, I'm not so dissatisfied with my current situation where I feel like unionization is necessary." For these workers, who are not economically dependent on gig work for their livelihood, the likelihood of engaging in collective organizing appears diminished due to their alternative source of income.

Engaging in gig work part-time while having another income source could make these workers less dependent on the platform and, therefore, less interested in participating in collaborative behaviors. Moreover, it might make them less aware or concerned about the instabilities present on the platform. For them, the ability to transition on and off the platform will appear feasible. Regarding collaboration, this circumstance presents a challenge. These gig workers might show reduced interest in collaborative efforts as their reliance on the platform is not as significant as that of full-time gig workers. Despite potential

feelings of insecurity, uncertainty, and limited economic benefits for part-time drivers, these concerns might be balanced by their additional, more stable income sources.

Another deterrent from collective action is that not all full-time drivers aspire to remain in this position indefinitely. Geno, an active collaborator, has participated in gig work within the past year. After making connections while doing gig work, he took on employment elsewhere because he acknowledged the troubles with doing gig work for a long time. Others, like Mark, a conditional collaborator, discussed his experience conversing with other gig workers on a subreddit about the transition to full-time work, stating how companies do not hire gig workers because there is an assumption that they "don't want to commit to a standard, like a standard rulebook or whatever, like at an official location." This challenges collective organizing efforts, as drivers may anticipate leaving gig work behind to pursue alternative career paths. Alternatively, they are trapped doing gig work unwillingly, putting them in a more precarious situation and potentially making them more protective of their income. Consequently, investing time and effort into an already precarious situation that lacks the potential for change may appear futile for some.

In short, dependency on the platform is critical for determining whether gig work is worth pursuing collective organizing efforts. When treated as a full-time job, drivers were more inclined to seek out and be involved in collective organizing. Their dependency also affected their solidarity with other gig workers.

Solidarity in the community

Interview data suggests that some gig workers feel connected and part of a group with other gig workers. Tommy, an active collaborator, expressed camaraderie online and in person. With roommates who also do gig work, they explained, "I think when you have someone who's done gig work for a long time, especially if they do it solely, there's a sense of camaraderie. And that y'all both know how terrible it can be. I think there's a real phenomenon to speak of like, like, in bad workplaces, when you have like people that know how bad it is, and you can both kind of vent about it, it becomes a lot more tolerable."

Even on the subreddit, when gig workers post common issues, instead of viewing it as "it is what it is," they band together to" come to like, work-a-round conclusion to fix it. To our best ability."

Supporting each other through gig work is a common theme that causes some gig workers to feel solidarity. However, even those who are associated with gig worker groups had mixed feelings. One participant, Ellis, another active collaborator who comes from the same group as three other participants, believes that everyone in his group wants what is best for everyone. He explains that "we all want better for Uber. We all want better for us." Interestingly, another participant, Trinity, who is in the same group as Ellis, separately states, "I don't feel like I belong" to the group.

However, non-dependent gig workers reported not feeling a sense of belonging with other drivers for a variety of reasons. For example, Jinx, a non-active collaborator, reported not being involved in online gig work groups and not socializing with anyone while on the job. Jinx did not perceive the platform as exploiting her. Unlike many of her constituents, she felt that gig companies "really care" about gig workers and "definitely have a good rapport with us." So much so that they appreciate how Doordash sends notifications to tell them to pause and will remind them later when it is busier on the platform:

> "We got really slow halfway through my dash and they like, sent the notification like, hey, you know, and it was, it is really slow, would you want to pause and pick back up, we can let you know. So, I just feel like they really pay attention to us, and really want us to have a good experience." - Jinx

Neo is another non-active collaborator who expressed not feeling any belongingness with the platform. Not being involved in any online groups explains the challenges of connecting with other gig workers. For them, the lack of "physical representation" for gig work makes it difficult to meet other drivers.

This suggests that a variety of factors and individual experiences influence the solidarity among gig workers. The level of solidarity experienced by gig workers is interconnected with what we define as the perceived competitive pressure. This competitive pressure arises from a combination of structures and

discourse that can have either a negative or positive impact on solidarity, depending on their experience. If they perceive the platform design as disruptive or see interactions in online groups as negative, their solidarity may suffer. While some can foster solidarity through online chat groups or chance encounters, the intensity of the perceived competitive pressure often hinders the development of such feelings of solidarity. The following section will delve into the influence of perceived competitive pressure on the sense of solidarity.

Platform Design

Platform design proved to influence drivers' willingness to engage in collaboration. Participants have highlighted certain platform features, such as contracts and replaceability, as discouraging factors when considering collective organizing. In the next section, I explore how platform features have influenced participants' inclination towards collaboration. Then, I will elaborate on toxic online groups.

Lack of Physical Spaces. Opportunities for gig workers to interact with each other vary widely among participants, contingent on the type of gig work they engage in. The nature of gig work itself can limit the perceived spaces available for workers to connect. For instance, ride-hailing platforms like Uber and Lyft may encounter fellow drivers at gas stations while refueling between passenger pickups at the airport. Similarly, drivers for food delivery platforms like Doordash or Uber Eats may cross paths at restaurants while awaiting their orders.

Many respondents felt as though there were few places for them to meet other gig workers. Virgil, a non-active collaborator, points out the absence of a communal space, saying, "There's no water cooler for us to gather around and talk. There is no actual workspace. So, you, you do have to go out of your way if you want to try to find other workers." Virgil, who works with Lyft, highlights that chance encounters while picking up other drivers are the only times they have met, emphasizing the rarity of such interactions. The lack of a physical meeting space akin to a traditional workplace poses a challenge for gig workers who must exert extra effort to connect with their peers.

The limited physical spaces available for gig workers to meet discourage collaborative efforts and build solidarity. At the same time, some argue that spaces like restaurant queues present opportunities for interaction; the reality is that due to service demands, drivers are always hanging around waiting to chit-chat. The inherent on-the-go nature of gig work leaves little room for such encounters, as emphasized by Mark, a conditional collaborator, who states, "I am just in my car, going into a restaurant, grabbing the order, and then delivering it. And that is how it is for every single order... there's no opportunity for collaboration."

Platform work through phones adds another layer of isolation. Neo, a non-active collaborator, notes the absence of "chat rooms" or "physical representations" within app-based work. Neo elaborates, stating, "like there's not a hub that we all go to, at the end of the day to talk about things or have lunch like a normal traditional setting, it's all amorphous like I said before, and you're doing your own thing." The scarcity of collaboration spaces is further highlighted when participants discuss hubs or centers that some platforms allegedly provide for drivers to meet with customer service agents. However, these spaces seem insufficient to foster meaningful connections, as the rushed nature of interactions during order pickups at restaurants hinders any substantial engagement among gig workers.

Moreover, active collaborators accessed these spaces or had others around them to mitigate the absence of a shared space. For example, Geno mentions that when working at the airport, he would meet other drivers at a gas station near the airport, where drivers would wait to accept rides or stop for a brief break to socialize with other drivers. There, he would socialize with drivers. Louis also had proximity to other drivers. His roommates also do various gig jobs, like Doordash and Uber. Here, he describes some of what they talk about:

> "So, I actually have a couple of like, um, roommates that I work with that also do gig work… one does Doordash and Uber-like regular, like drive people around Uber, and one just [does] Uber and Lyft. So, I've interacted with them, and we've talked about little strategies and places to go, not go, to go like drive and deliver." - Louis.

The absence of shared physical spaces results in a disconnect among drivers. While some individuals can locate places to connect with fellow drivers, others may struggle with this. This inability to encounter other drivers or only being connected with drivers online fosters a sense of isolation and a lack of community for some. The absence of a shared community further contributes to a diminished interest or the belief that participation in collective organizing opportunities is unlikely.

Sowing Distrust Sowing distrust encompasses drivers' shared concerns of other drivers as spies and gig companies invading thought-to-be private gig worker spaces. Some participants suspect that platforms such as Uber go beyond enforcing contract rules and stifle dissenting voices or negative feedback. This became evident in the difficulty I faced while collecting data for the study. Initially, gig workers in a Facebook group viewed my attempts to access their group suspiciously, assuming it was a scam. Eventually, I managed to get three members to participate. When I asked about collaborating or the fear of platform removal, Gilda outrightly said, "Uber and Lyft do what you're doing anonymously, a lot, you know, but they'll do it anonymously. Yeah. And you won't know. Later on, you finished a survey. And it's the same thing. That's what I was like. I know many people were skeptical, but it's like, I've been a part of a lot of surveys that were like, this will give you a $20 Amazon gift card." There are circulating claims that Uber and Lyft send out anonymous surveys, and if drivers express negative opinions, they might be removed from the platform.

Rumors of Uber deactivating drivers for participating in lawsuits against them are common. Geno expressed his hesitation to join a lawsuit against Uber, emphasizing, "If it'd become part of the lawsuit, yes, I'll make a lot of money, but then I'll never be able to drive for Uber again in my life. That's how it works." This fear stemmed from Geno's understanding that participating in such legal actions might lead to deactivation from the platform. Gilda echoed this concern about repercussions for advocating for better conditions, saying, "I don't want to get caught. Many people from the groups have said that they've been caught doing that. And they've suddenly been deactivated. So, I tried to stay away from that. Some people have even participated in lawsuits, and they've been deactivated for that because

you were part of this lawsuit or that lawsuit." Ellis reiterated this anxiety, stating that while he felt secure participating in the study himself, he warned others in the Facebook group (distinct from Geno and Gilda's group) of their fears: "They fear the information will get back to Uber, and they'll be out of a job."

These accounts reveal a pervasive fear among gig workers that any attempt to advocate or participate in legal actions for better conditions could lead to deactivation, therefore jeopardizing their livelihood. Gig workers are mindful of what secrets they share for the same reason. Trinity refused to share her secrets with me because of a concern about divulging her knowledge to an Uber spy. The rationale she gave me is as follows:

> "Take it as someone is always watching; someone is always watching in those
> Uber groups. Uber representatives are in there disguised as normal people in
> normal people, but they have to be, and so because people randomly get
> deactivated, I'm not a conspiracy theorist by any means, but I do not do anything
> that will get me in trouble, and I do not do anything illegal. You know, some
> people seem to know that they're carrying drugs and do not care when they do,
> like the Uber connected; I do not do that. You know, it's everything like by the
> book for the courier about what I have. I stay straight as an arrow with everything
> I do, but I want I do have one assist." - Trinity.

Ellis elaborates further on this fear, relating it to unionizing. Like a few of the gig workers in this study, he would be interested in unionizing if it did not threaten his employment. During the interview, Ellis mentioned that gig workers would talk about unionizing in a Facebook group chat, but it would be jokes. He states:

> "We joke about it because you would just be thrown off the platform if you tried
> to do something like that. I would think at least, you know, and you don't have
> any control over that. You can't; once you're thrown off the platform, that's it.
> You know, you're an independent contractor. So, it's not like, you know, they can
> get rid of you whenever they want."—Ellis.

Ellis fears that joining a union would deactivate him. After this comment, he said, "This is an important job for me to make money on the side. And, you know, I love the hours being able to make my own. So, there will be some worry about, oh, if I do this, you know, I'm going to be kicked off." Participation in lawsuits or organizing creates concerns of deactivation, A risk that gig workers, like Ellis, would not want to risk to hold on to the benefits of the job itself (i.e., flexibility, autonomy).

Sowing distrust contributes to the perceived competitive pressure. As previously mentioned by drivers, there are assumptions that gig companies are hiding and disguised in gig work groups. Deactivation threatens gig workers' earnings and overall job security on the platform. With rumors spreading that gig platforms may shadow-ban drivers for speaking negatively or suing the platform, gig workers may be more hesitant to speak openly about their opinions. Drivers may find it challenging to establish trust in online gig work communities when discussing collective organizing efforts due to the unpredictable nature of contract violations. This lack of trust further exacerbates the lack of solidarity they experience, particularly when considering legal actions against companies like Uber and Lyft or discussing an intent to protest. While these gig workers may have an interest in collective organizing, they acknowledge the need to avoid drawing attention to themselves to evade scrutiny from these organizations.

Replaceability. One of the greatest features of gig work that compels many drivers to seek it out is the freedom to start and stop whenever they please. Several interviewees mentioned that they sought gig work for the flexibility and autonomy offered by the platform. As Quinton mentions, he can start "within seconds. I got accepted. Within seconds, they approved me, and you know, Uber doesn't do all these steep deep-dive background checks or anything like that."

Flexibility has a price. Workers are easily replaceable. Adam expresses a strong desire for change and uniting other drivers to go on strike. However, when asked if they have ever advocated for better working conditions, he shared an example of why he does not:

> "Let's say [City in the Southeast] decides to on this next weekend, we're all shutting down, we're not working, right? You know, there's gonna be a large percentage of people

working because guess what, they're gonna get big money because surge prices will go through the roof because it'll take, they'll take advantage of the money. We're the people trying to help the situation." - Adam.

Gig workers are aware of their replaceability. Platforms have an abundance of drivers, and barriers to entry are low. If one driver were to strike, another would reap the awards on the platform. When there are fewer drivers and more orders, platforms tend to advertise "surge prices" (Quinton), which are higher earning orders and incentivize drivers to work. This poses a large challenge to uniting workers when the drivers choosing to advocate are immediately replaced by workers looking to capitalize on the situation.

Knowing that they can be easily replaced adds to the overall sense of job insecurity experienced by gig workers, which, in turn, heightens their perceived competitive pressure. This job insecurity, coupled with the sowing mistrust, creates a belief that engaging in collective organizing efforts could result in missed opportunities for orders and surge prices, as other gig workers would pick these up. Consequently, there is a risk of losing income while participating in protests or actions that may bring about no real change. This ongoing uncertainty surrounding their position creates competitive pressure, particularly for gig workers who view their role as highly unpredictable and insecure. Consequently, to avoid any potential loss of income, they may be inclined to abstain from participating in collective organizing efforts.

Toxic online groups. Toxicity within online groups impacted collaboration interest among respondents. Respondents in different online groups observed toxicity from either directed to other members; however, in observing the interactions, their perceptions of the gig work community consisted of what they described as "selfish" and "bitter" people. Participants recounted their experiences interacting with members or being witnesses to the toxic discussions happening. Their negative encounters in these online groups shaped their negative perception of the community, leading them not to want to collaborate. This was evident across collaborator types, as drivers experienced a decrease in their

willingness to collaborate. This was attributed to factors such as the withholding of tacit knowledge or "secrets" and the active discouragement of new drivers from joining the platform.

A common thread among participants was the challenges of getting online group members to share their tacit knowledge or "secrets." Secrets are strategies gig workers use to improve or optimize their earnings on the platform. While the strategy may not be entirely secretive, respondents felt online group members would be hesitant to share their strategies. For example, Gilda, a non-collaborator, recounts her experience seeking out secrets in her Facebook group:

"So, I experienced the same rudeness that every newcomer gets. You know, you went to the group to look for knowledge, and then people were rude to you. So, it's like, okay, forget it. Yeah. So, I don't share my secrets, and they don't share theirs. Even with some of them… that I do DM and message, they don't share their secrets either. Like, no. Yeah. Because it's competitive." - Gilda

This occurred during an earlier phase in Gilda's gig work career. Like many newcomers, she joined a Facebook group hoping to find ways to enhance her platform experience. However, she encountered hostility from existing members, leading her to decide not only to withhold her secrets but also to avoid collaborating with others. Online groups empower gig workers by providing valuable insights into beginning their journey in ridesharing and food delivery. Moreover, these platforms equip gig workers with essential knowledge on cost-saving strategies related to expenses like gas and insurance, impart wisdom about traffic-prone areas to steer clear of, and even provide insights into upcoming events that can help boost their earnings.

Not all respondents were willing to share their secrets during the interview process. Trinity, another non-collaborator, refrains from divulging her strategies to fellow online group members and even to me. She explains her reluctance to share with other drivers: "I don't like to give up my secrets to other drivers because I don't want them to take my fish and holes." By safeguarding her secrets, she maintains a competitive advantage and prevents other drivers from accessing her market. Even within the online gig work group she is a part of, she chooses not to actively participate and share information about how she

enhances her earnings. During my interview with Trinity, I probed her strategies, but she refused to disclose them. This refusal caught me by surprise. Despite my attempts to uncover her tactics, she decided not to share.

Toxicity also consisted of discouraging group members from joining gig work. Many respondents were already aware of how replaceable their line of work is. Communities anticipate that an influx of drivers will lead to reduced available orders, which reduces earnings and heightens the precarity for current drivers. Consequently, some drivers might dissuade others from joining to safeguard their earnings. Louis, reflecting on his experience in gig work subreddits, explains, "Everybody has this idea that the more drivers there are, the less everyone gets paid, which I get to an extent. But like it's, it's just a lot of people who are discouraging [people] from getting people to join on there. And a lot of drivers in general are pretty selfish." Adam echoes this sentiment, expressing that "other people don't want these other drivers to do the cuts into their profit."

While some drivers might consider alternative employment options, others aim to safeguard their market by deterring inexperienced drivers. By reducing the replaceability factor, experienced drivers may reduce their concerns about what Quinton referred to as 'Ants'—new, inexperienced drivers accepting low-paying orders and potentially impacting interviewees' earnings. Communities within the gig economy anticipate that an influx of drivers will lead to reduced available orders, which reduces earnings and heightens the precarity for current drivers. Consequently, some drivers might dissuade others from joining to safeguard their earnings. Louis, reflecting on his experience in gig work subreddits, explains, "Everybody has this idea that the more drivers there are, the less everyone gets paid, which I get to an extent. But like it's, it's just a lot of people who are discouraging [people] from getting people to join on there. And a lot of drivers in general are pretty selfish." Adam echoes this sentiment, expressing that "other people don't want these other drivers to do the cuts into their profit." This protective stance preserves their earnings and inadvertently complicates collaboration efforts, potentially hindering collective actions in the gig worker community.

Another participant, Mark, describes a Reddit Uber online group as "bitter" because "I'll see occasional posts where it'll be like new people trying to get into it. And then some people will be like, 'Don't do that.' 'What are you doing?' 'Don't do that start?'... we'll start making less money because you're on here." While the topic of conversation is unclear, it could be inferred what the posts were about. One participant reported that there is so much "infighting." This protective stance preserves their earnings and inadvertently complicates collaboration efforts, potentially hindering collective actions in the gig worker community.

Quinton stands out as an active collaborator who acknowledged the negative aspects of online groups but was not deterred from collaboration. What sets Quinton apart from other collaborators who reported toxic group behavior is the sincerity of his perspective and his desire for change within the community. His frustration became noticeable when questioned about his sense of connection to the community, expressing sentiments like "there's no belongingness, there's no loyalty" within the gig work community. Exasperation and frustration painted his words as he described his reality of the gig work world:

> "It's a cruel world, and everybody's trying to make their dime their money. You know, and you know, how hard it was to make money before in 2016, everybody was there to help you in 2016… they're like, you're in there, throw your bone and say like, this is how you could do something, you know, try it out. Now, not even one is from the veterans. If you go into the Facebook group where you posted that [study], you'll see that some of the drivers are just as pressed as the other drivers. They're called ants. Ants are equal to hard[?] under workers, aren't they? They're just workers. So, they're not smart workers. They just work, work, work. And that's what they call the other new drivers. Because all they do is work. They don't know how to use this system. Yeah. Yeah. So, there's no unity. There's no sense of loyalty there, either. You know, that's why for me, nowadays, after what, seven years on this, this rideshares app platform. I understand that you know, I understand how it is. And I wish it would change. It needs to be changed." - Quinton.

Quinton describes his perception of the precarious nature of gig work. He highlights how veterans define new drivers as "ants," drivers whom they claim are not as smart as them, and recalls how the

online group was more supportive of each other at one point. Drivers would throw in their advice and strategies, contributing to the pool of knowledge resources. But now, drivers are pitting against each other, as other drivers noted above. They are creating an us vs. them mentality between new and older drivers. Despite these behaviors, Quinton still desires change and is involved in efforts to support the gig work community.

Toxicity in online gig work groups can increase competitive pressure and deter drivers from building solidarity. When drivers are exposed to highly individualized and entrepreneurial language, like "protecting their markets" or being referred to as "Ants," it can create hostility for newcomers and those who are not actively involved. Gig workers may view the toxic discourse as unproductive for collective organizing or building a community. Toxicity in online groups not only prevented participants from sharing their strategies for optimizing their earnings, but it deterred them from even seeking out collective organizing. Overall, this study found that toxicity in online gig work groups may be disruptive to gig workers seeking out collective organizing.

CHAPTER FIVE: DISCUSSION SECTION

Summary of findings

The purpose of this study was to investigate the role of dependency, online communities, and platform design in shaping solidarity among gig workers in online and offline orientations. First, participants were categorized based on their degree of collaboration. Other studies have captured two forms of active solidarity enacted by gig workers, but this study contributes to the literature by identifying the levels at which collaboration happens. Three levels of collaboration were identified: Active collaboration, conditional collaboration, and non-collaboration.

The study proposes that platform dependence and solidarity appeared differently for individuals based on their collaboration level. Specifically, individuals heavily reliant on platforms demonstrate a heightened interest in engaging in collective organizing endeavors and building solidarity. The core idea is that increased time spent on the platform exposes dependent gig workers to the evolving dynamics of gig work, leading them to seek online communities for mutual support, information sharing, and overcoming obstacles. Additionally, gig workers who are dependent on the platform have a greater awareness of large-scale gig work-related issues because they affect them and their income.

Active collaborators were more active in seeking groups to be a part of, whether that being to gain information on gig work or connect with other like-minded people. Conditional collaborations represented a mix of people, both full-time and part-time gig workers, who may collaborate if conditions are optimal. Non-active collaborators were not dependent on the platform and expressed less interest in collective organizing.

Solidarity emerges as a potential mediator, strengthening the bond between platform dependence and the desire for collective action. Conversely, drivers less dependent on platforms exhibit reduced interest in collective organizing, potentially stemming from their perception of the platform as a supplementary income source rather than a primary livelihood. Meanwhile, those who were more dependent, such as the active collaborators, used more language to indicate their belongingness and

solidarity with the gig work community. Active collaborators were interested in collective organizing, and that relationship was mediated by having solidarity in online groups.

Perceived competitive pressure also emerged as a mediator, with both platform-dependent and non-dependent gig influenced by factors such as platform design and exposure to toxic online discourse. Concerns around contract violations and lack of physical space contributed to lower feelings of solidarity. Toxic online discourse and lack of community support also lowered the chances for solidarity to emerge. High levels of PCP are associated with diminished feelings of solidarity, indicating a relationship between competitive pressure and solidarity within the gig economy. These findings underscore the ongoing reshaping dynamics of gig workers' engagement with collective organizing efforts and highlight the importance of addressing factors contributing to perceived competition and fostering solidarity within online gig worker communities.

Contributions of the study

This study contributes to the literature in several key ways. First, expanding upon prior research highlighting the absence of physical space and numerous sources of antagonism within the gig economy (Tassinari and Maccarrone, 2020), this study explains additional factors impeding solidarity among gig workers. Specifically, these participants voiced concerns about gig companies spying within groups, competition with other gig workers, and a perceived lack of community support.

Secondly, drawing upon Schor's (2020) definition of platform dependence, the research expands upon the work of Wood et al. (2021), who investigated contention dynamics within the remote gig economy. Wood et al.'s study focused on how platform workers engage in various forms of protest against their working conditions, utilizing data from a large-scale survey conducted by the European Centre for the Development of Vocational Training of the European Union. In their study, dependence was defined as "the extent to which workers are unable to act on their grievances or exert power over their clients or platforms," aiming to explore the different forms of individual protest gig workers engage in. While this definition is valuable for understanding gig workers' lived experiences and their targets of

protest, it differs significantly from Schor's (2020) definition, which centers on economic reliance on platforms to meet financial needs. Therefore, this study adopts an economic reliance perspective, extending the literature on gig workers' experiences by relating platform dependence to solidarity and the decision to engage or disengage from collective organizing efforts. Specifically, those highly dependent on platforms demonstrated greater engagement in collaborative behaviors and expressed more active solidarity despite facing challenges such as problematic platform design features and toxic online behaviors. Gig workers with lower levels of dependency on gig work encountered similar obstacles in fostering solidaristic attitudes, occasionally leading to disruptions in collective action efforts. By examining the economic aspect of platform dependence, the research provides insights into how gig workers' financial reliance on platforms influences their attitudes toward collective action and solidarity-building initiatives.

Moreover, this study extends existing literature by identifying additional factors that can impede the cultivation of solidarity within gig worker communities. Echoing recent research (Schou & Bucher, 2023; Watkins, 2022), the study emphasizes the dual nature of online groups as platforms for both sharing experiences and seeking information and as environments that can harbor negativity and bitterness. Participants described encountering reluctance to share information, derogatory labeling of newcomers, and a lack of support within these online groups, all of which hindered the development of solidarity. Comparisons between individuals involved in online groups and those who are not underscored lower levels of solidarity among the latter, highlighting the nuanced dynamics of solidarity within different social contexts.

Furthermore, in line with the findings of Atzeni and Cini (2022), this study highlights the influential role of online group dynamics in shaping active solidarity among gig workers. Participants' experiences of bitter and hostile online communities, coupled with a perceived lack of loyalty among gig workers and the individualized nature of gig work, contributed to a sense of disillusionment and hindered

engagement in solidaristic behaviors. These findings emphasize the significance of supportive online communities in mobilizing gig workers.

Lastly, to my knowledge, this would be the first study to categorize gig workers based on their level of collaboration. By complementing existing research on factors influencing solidarity expression, such as those outlined by Tasinnari and Maccarone (2020), this approach underscores the significance of individual perspectives within online communities and the impact of personal financial circumstances on workers' willingness and ability to engage in collaborative actions.

Implications Of Research

Occupational Closure in Online Spaces

Recent literature explains the challenges gig workers face in establishing connections within online spaces. Despite the absence of shared physical spaces, gig workers manage to forge solidarity in online groups, creating opportunities for collective action (Tassinari & Maccarrone, 2020; Wood et al., 2018). However, Schou and Bucher (2022) shed light on how solidarity can unravel in these online groups due to conflicting identities. Unlike previous studies asserting the existence of solidarity among gig workers, Schou and Bucher illustrate how online gig work groups fragment into perceived factions, viewing these online spaces more as arenas of conflict than solidarity-building. In their study of Upwork workers, freelancers divided themselves into groups, with "Top-level" freelancers considering gig workers from low-income countries as unwanted competition clogging up the platform.

This study builds on insights from Schou and Butchers' study(2023) by looking into the role of online group discourse contributing to the lack of solidarity in gig work. Beyond conflicting identities, the data analysis reveals gig workers' frustration with online groups, depicting them as negative, bitter, and hesitant to share information, fostering discouragement towards newcomers. This negative dynamic may also be attributed to occupational closure, where groups motivated by competition for livelihood seek to monopolize advantages and exclude

perceived inferior outsiders (Weeden, 2002). Gig workers, viewing themselves in precarious positions and vying for limited resources such as orders and customers, may dissuade others from joining to protect their income. Experienced drivers, having developed strategies for maximizing earnings, may establish themselves as a privileged group within the community, resistant to legislative changes like Prop 22, which could blur the boundaries between themselves and newer drivers and jeopardize their income stability.

This dynamic may appear in online groups, as evident by the toxic online discourse and perceived lack of supportive groups. Existing studies underscore gig workers' reliance on online groups as a platform to air grievances with the gig platforms (A. Wood & Lehdonvirta, 2019). As one respondent aptly put it, "It's just a way for people to complain about not getting tipped, and just a place to express their frustration because it can be a very frustrating job." However, this study unveils a concerning trend where members perceive such grievances and toxic behaviors negatively, dissuading active engagement and collaborating in active solidaristic ways.

Findings from this and previous studies suggest that occupational closure may contribute to a lack of collaboration critical for mobilizing support for a large-scale gig work movement. Gig work platforms foster intense competition among drivers for limited resources, prompting gig workers to adopt strategies for income optimization. However, individuals facing precarious circumstances may discourage others from joining online groups, fostering an "us vs. them" mentality between experienced and novice drivers. In this context, experienced drivers may safeguard their income and market share, potentially withholding valuable insights or "secrets" due to past negative experiences seeking help or perceived competition for income among drivers.

Platform Dependency a reason to organize

This study not only reaffirms but also adds complexity to the relationship between solidarity and collective action within the gig economy. While existing literature underscores the

significance of solidarity in mobilizing drivers for support action (Tassinari & Maccarone, 2020), my research suggests that gig workers' solidarity is heavily influenced by their level of dependency on the platform. Dependent gig workers may perceive a greater need to foster community, actively engage with fellow drivers online, and seek connections beyond mere information exchange for the sake of belonging to a supportive community.

Interestingly, gig workers who were more dependent on the platform acknowledged its problems but were less deterred from engaging in active solidarity compared to those who were less dependent. This coincides with Schors' findings (2020) that more dependent gig workers experience lesser job satisfaction and greater perceived precarity. This finding contrasts with my initial expectation that dependent gig workers would be more sensitive to issues such as expulsion threats, competition, or lack of community support. Despite being aware of these challenges, they remained committed to collaborative efforts, demonstrating a strong desire for improvement within the gig work community. This stands in stark contrast to the behavior of less dependent gig workers. Less dependent gig workers, whom Schor (2020) reported as having greater satisfaction, may not be as bothered by the issues on the platform because the job is only temporary.

The driving force behind solidarity among gig workers remains ambiguous: Is it primarily shaped by experience or by dependency on gig platforms? In my research, I have encountered a spectrum of experiences among gig workers, spanning from veterans who have navigated the gig landscape since its early stages to newcomers who are just beginning. While seasoned workers often express disillusionment with platforms due to declining pay over time, their longevity in the gig sphere may have facilitated the formation of solidarity through extensive networking and shared experiences. Conversely, those with less tenure may lack the insight to recognize platform exploitation, particularly if they engage with gig work only part-time.

Several explanations could account for this discrepancy. It is possible that individuals who acknowledged platform issues while still actively engaging were part of what they perceived as supportive communities. Additionally, gig workers located on the West Coast, near Uber Headquarters, may have had more exposure to discussions about issues like Prop 22, potentially fueling their engagement in solidarity-building efforts.

Future Research

Exploring the impact of grievances expressed within gig online groups on developing and maintaining feelings of solidarity presents a rich area for future research. While existing literature acknowledges the prevalence of grievances voiced by gig workers in these online communities (Tassinari & Maccarone, 2020), the specific effects of such grievances on solidarity remain underexplored. The grievances commonly expressed within these online groups range from issues related to pay and working conditions to disputes with platform policies and treatment by customers. Understanding the nature and frequency of these grievances could shed light on their potential influence on solidarity dynamics among gig workers.

Moreover, researchers could investigate how grievances are addressed within online groups—whether through collective action, support networks, or ignored—and how they affect perceptions of solidarity. Gig workers may show derision, shame, and belittle group members for seeking help with knowledge that is readily available (Watkins, 2022). Similarly, my study reveals that some gig workers were turned off from collective organizing because they were denied assistance. Depending on the topic in question, community members may be more receptive to questions about better areas to make money than to questions about scams. Furthermore, comparative studies could explore differences in the impact of grievances on solidarity across various demographic groups, such as different age cohorts, genders, or levels of platform dependence.

Additionally, longitudinal studies could track changes in solidarity levels over time in response to shifts in the prevalence or nature of grievances within online groups or platform dependence. Dependence

may change over time as gig workers find new opportunities to exit the platform for good or become increasingly dependent on the platform. The increased dependence may lead to more interactions with online groups and seeking support in forums, thereby allowing solidarity to emerge.

Limitations

While this study made significant contributions through rigorous data collection and measures to prevent interference from bots, notable limitations must be addressed. Despite efforts to recruit a diverse sample of online and offline gig workers, approximately nine participants were sourced from online groups. This sampling approach may have introduced a sampling bias, as individuals active in online communities may have greater exposure to discussions on collective organizing, potentially influencing the development or erosion of solidarity. Conversely, while representing a distinct demographic, offline gig workers may have different reasons for their lack of online participation and may not be as exposed to such discussions. This means an overrepresentation of online gig workers may paint one perspective on the relationship between platform dependence, solidarity, or collective organizing.

Another limitation pertains to the challenges encountered in accessing participants, both online and offline. While efforts were made to distribute flyers in fast-food locations frequented by gig workers, a more innovative approach, such as engaging with participants directly at these establishments, may have yielded better results. Additionally, the prevalence of bots and scammers in online environments presents a significant threat to data integrity. Despite precautions taken to verify participant authenticity, including scrutiny of names and IP addresses, the potential for fraudulent submissions remains a concern. Researchers should remain vigilant to safeguard against such threats and ensure the reliability of collected data.

Conclusion

In conclusion, this study highlights the significant influence of gig workers' dependency on platforms on their intention to build solidarity within the gig economy. Moreover, the lack of support and perceived withholding of information within online groups pose challenges to fostering active solidarity

among gig workers. The broader implications of these findings for gig work communities are still to be fully understood. However, gaining a deeper understanding of how lack of support and dependency shape solidarity provides valuable insights for researchers seeking to strengthen solidarity within gig work communities. By addressing these challenges, researchers can work towards developing practical solutions to build stronger and more supportive gig worker communities.

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Appendix A: Interview Guide

Experience Working as a gig worker
1. How did you end up doing this kind of work?
   a. Probe: What motivated you to do this type of work?
   b. Probe: Have you ever worked in a non-gig job, like in a traditional office or store setting?
2. Can you think of the most recent time you interacted with other gig workers in person or online?
   a. Probe: How often would you say this happens?
   b. Probe: What are the kinds of things you talk about?
   c. Probe: Are there any topics you appreciate talking about or that are considered taboo to ask? Why?
   d. Probe: Are your interactions virtual or face-to-face?

Reflection on challenges that face gig workers (do you think about the issues)
3. Generally, how would you describe your feelings (warm or cold) when thinking about the platform you spend most of your time working with?
   a. Probe: To what extent do you think the platform values your work?
   b. Probe: What made them feel taken advantage of?
4. Do you think gig workers sometimes face challenges or unfavorable conditions when working?
   a. "Do you think there are specific platform policies or features that significantly impact gig workers?"
   b. Can you think of any policy or feature that affects your work?
5. Have you ever felt taken advantage of or undervalued as a gig worker?
   a. Probe: Why do you/do you not feel used or taken advantage of?
   b. Probe: What led to you feeling that way?

Social identification
6. To you, what does it mean to be a gig worker?
7. Do you feel a sense of belongingness with other gig workers?
   a. Probe: Why or why not?
   b. Probe: What makes you feel like you belong? (or not belong?)

Group factors:
8. What do you believe are some common goals gig workers share to improve working conditions?
   a. Probe: What are examples of common interest?
   b. Probe: What are examples of common challenges?
   c. Probe: If not, why?
   d. Probe: What do you think are common challenges?
   e. Probe: What gave you a sense that these are common goals or challenges?
   f. Probe: Do you have other goals that are more important to you?
   g. Probe: Are there goals that you disagree with?

Individual/Collective resistance and efforts to improve conditions.
9. Have you ever collaborated with other gig workers to optimize your experience on the platform or to advocate for better working conditions?
   a. Probe: If so, can you give an example?
      i. Probe: What makes you feel comfortable or confident when collaborating with gig workers?
      ii. Probe: Are you involved in any organizations, movements, or groups that advocate for the rights or interests of gig workers?
   b. Probe: If not, what makes collaboration unattractive, and why?
      i. What concerns or apprehensions, if any, do you have when it comes to collaboration?
10. In your experience, do you think gig work provides a safe space for organizing?

      a.   Probe: What experiences or observations have led you to believe collaboration might not be encouraged or welcomed here?

      b.   Probe: Is the community too competitive to collaborate?

      c.   Probe: Are there any obstacles or challenges that would make group organizing difficult to achieve or sustain?

11. What strategies or techniques do you use to optimize your experience while working on the platform? (Gaming the system)

      a.   Probe: Do you have a strategy that involves cooperation with other people?

      b.   Probe: How did you learn about these strategies?

      c.   Probe: Have you shared this knowledge with other gig workers?

      d.   Probe: Would you consider knowledge in gig work to be competitive

[Wrap-up Questions]

Do you have any final thoughts or suggestions on how to improve the gig work experience?

1. **Demographic Questions**
   a. : What is your age?
   b. What is your gender Identity?
   c. What is your race?
   d. What state are you from?
   e. How long have you been doing gig work?
   f. What apps do you work on?

Table 1: Demographics

Pseudonym	Race /Ethnicity	Age	Gender Identity	Length of time on the app
Geno	White	28	Man	10 years
Ellis	White	34	Man	Less than 1 year
Quinton	Asian	50	Man	7 years
Adam	White	63	Man	1 year
Virgil	White	31	Man	2.5 Years
Kyo	White, Hispanic	36	Man	6 years
Logan	White	43	Man	2 years
Gilda	White, Hispanic (Latina)	46	Woman	4-5 years
Neo	White	26	Man	*
Trinity	White	40	Woman	Three years
New #1 Jinx	White	37	Woman	Two years
Tommy	White	23	Man	One year
Mark	White	23	Man	x
Louis	Black	31	Man	Eight months

Table 2: Level of Collaboration, Dependency, and Solidarity among participants

Pseudonym	Type Of Collaboration	Level of Dependence	Level of Solidarity
Geno	Active	Full time	High
Ellis	Active	Full time	High
Quinton	Active	Full time	High
Adam	Active	Part-time	High
Virgil	Non-Active	Full time	Low
Kyo	Non-Active	Part-time	Low
Logan	Active	Part-time	High
Gilda	Non-collaborator	Part-time	Low
Neo	Non-collaborator	Full time	Low
Trinity	Non-collaborator	Part-time	Low
New #1 Jinx	Non-collaborator	Part-time	Low
Tommy	Active	Full time	High
Mark	Non-Active	Full time	Low
Louis	Non-Active	Part-time	Low

Table 3: Qualitative coding

Relevant Dimensions	Example quote
Dependency [a]	
High- Dependency / Full-time	*"They kicked me out of the app for about, like, a month; it was rough because I didn't have any jobs at the time. And I didn't know what to do." - Tommy.*
Low- Dependency / Part-time	"'It was just to add extra revenue to my income. So I can put some aside, but at the time, I didn't have any goals for that income. But I just wanted something on the side'—Kyo. "I just always looked at it as a way to supplement my income as an opportunity to supplement, you know, work that I already had, that is more stable" - Gilda. "Because it's a temporary job for me. And it's just something fun to do. And if it were my bread and butter and I did it all the time, and they gave like insurance and stuff, I was I would surely care more." - Trinity.
Solidarity [b]	
High Solidarity	"We all want better for Uber. We all want better for us. All. We all want better pay, so I feel like the community is breaking it down. It's communication and unity. And so, we have the communication part down, and then we're all kind of united to getting better money." - Ellis
Low Solidarity	"I don't need that sense of belongingness, or community with those gig workers, because I'm not a full-time gig worker" - Kyo.
Competitive Pressures	
Platform Design	But you've seen in the group that the people don't really help you, because they want to make their own money too. When they find something that is working, it's hard for them to disclose it nowadays because you're not making money on Uber anymore. -

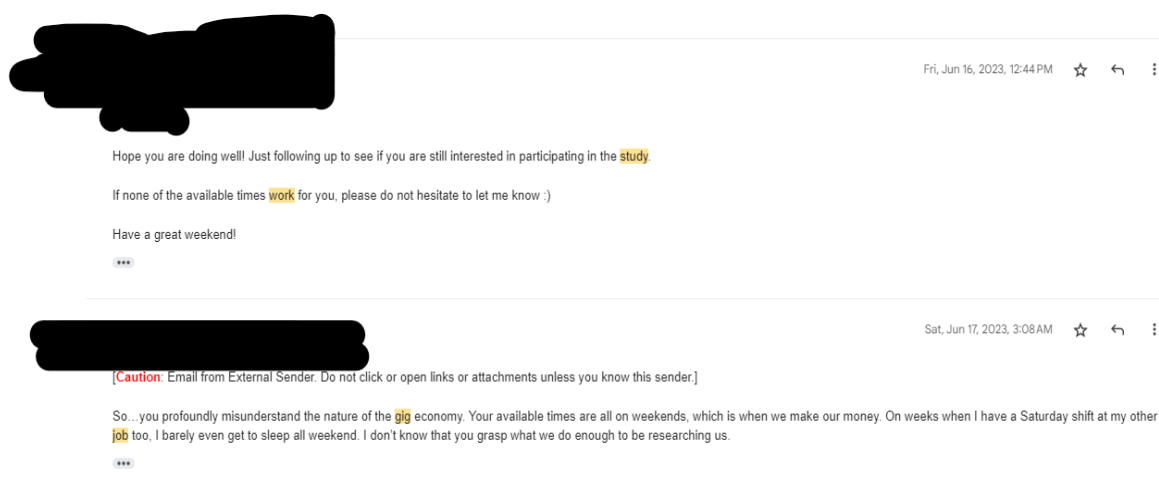| Toxic Online groups	Everybody has this idea that the more drivers there are, the less everyone gets paid, which I get to an extent. But like it's, it's just a lot of people who are discouraging [people] from getting people to join on there. And a lot of drivers, in general, are selfish. It just so much fighting about anything about the kind of cars they drive, the perks that they give the passengers.... and then they'll post it. This is my ride. This is how I take care of my customers. And then you'll get they'll get 30-40 responses. You know, you're an idiot. Why are you giving them? You're losing your profits. It's stuff like that on there.

Figure 1

Fri, Jun 16, 2023, 12:44 PM ☆ ↩ ⋮

Hope you are doing well! Just following up to see if you are still interested in participating in the study.

If none of the available times work for you, please do not hesitate to let me know :)

Have a great weekend!

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Sat, Jun 17, 2023, 3:08 AM ☆ ↩ ⋮

[Caution: Email from External Sender. Do not click or open links or attachments unless you know this sender.]

So...you profoundly misunderstand the nature of the gig economy. Your available times are all on weekends, which is when we make our money. On weeks when I have a Saturday shift at my other job too, I barely even get to sleep all weekend. I don't know that you grasp what we do enough to be researching us.

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Figure 2