

Algorithmized Not Atomized: The Distributed Solidarity of Jakarta's Gig Workers

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This article examines a deeply organized, spatialized, and networked form of gig worker collectivization developed by Jakarta's mobility-platform drivers (*ojol*) working for Grab and Gojek. I show how this localized form of "distributed solidarity" emerges from an interaction among preexisting cultures of mutual aid, shared histories of market organization, and platform-driven changes in the market's spatial imperatives. Focusing on these social, historical, and technological lineages of gig worker solidarity allows us to better understand the distinct forms of worker collectives appearing in different contexts. Thus, I make a case for studying solidarities in their context, paying attention to the new forms that emerge as platform work is domesticated and implicated in local social relations. I conclude with a call to humanize the stories we tell about labor and disruption, making space for diverse and contradictory articulations of collective worker joy, hope, and power.

Keywords: gig work, solidarity, platform labor, Global South, mutual aid, basecamps, shopfloor

A main artery in Jakarta suddenly converts into a setting for a motorbike parade. Dozens of "online" bike-taxi drivers working for the mobility-app companies Grab and Gojek stream onto the road to escort an ambulance carrying a fellow driver's family member. They stop oncoming traffic and clear the ambulance's pathway, all the while wearing emblems and customized jackets of their *komunitas* (the local word for community). At predecided spots, more drivers from other *ojol* communities join them, ensuring the ambulance gets to the hospital in time. This is just another service provided to members by the driver communities created by the city's *ojol*: A portmanteau of *ojek* (motorbike taxi) and online that refers to the city's digitized, "online" motorbike-taxi drivers working for Grab and Gojek.

These robust, grassroots *ojol* communities expand the possibilities and contours of gig worker solidarity studied so far (Dubal, 2019; Gray & Suri, 2019; Gregory, 2020; Irani & Silberman, 2013; Salehi et al., 2015; Wells, Attoh, & Cullen, 2020). Instead of being just loose ephemeral groupings of occupational aid, these driver networks display extremely complex forms of organization, with internal hierarchies, rules, and elections. There is a deep investment in group identity, with iconography, logos, and unique names (as seen in Figure 1). Mutual aid is extensively furnished. Instead of being based just on online interactions, their solidarity is spatially rooted through daily in-person meetings and semipermanent "basecamps" (do-

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it-yourself shelters created by drivers themselves). The ojol community now boasts a network of hundreds of WhatsApp groups and thousands of basecamps across the city. Drivers have drawn power from these collectivities even though these are not formally considered unions and relied on them for mediation in case of crises.



Figure 1. Emblems, logos, and solidarity at ojol basecamps in Jakarta. Source: Photographs taken by the author.

In Indonesia, technologically mediated employment has not done away with the need for informal social relationships. Instead, affordances of platforms and social media technologies have interacted with existing socio-spatial conditions of the city to form this local form of solidarity, which I call “distributed solidarity”: Deeply organized, spatially rooted, and networked through a web of physical and digital spaces. This article sketches out the contours of this distributed solidarity and explains how the architecture of solidarity was refracted and co-constituted by local particularities. In doing so, it makes three key contributions to scholarship on digital labor. First, it argues for attention to the collective relationships of care and solidarity that gig workers embed in, produce, and rely on as part of their work. These relationships have always been an essential part of urban life in the Global South and thus should be studied on their own terms. Second, it argues that any research on solidarities in gig work must also focus on the sociocultural, technological, and historic lineages of emergent platform labor solidarity in different contexts. Existing forms of association and modes of collectivization continue to have relevance in the labor regime even after technological mediation, and thus focusing on these lineages allows us to better understand the disjunctures and continuities of platform disintermediation. Third, more so than anything, the practices of distributed solidarity developed by the ojol should remind scholars to consider workers in their full humanity, not to turn them into mere abstractions. In the collective relationships of the ojol, there is hope and faith as much as there is exploitation and co-option. This work is an attempt at articulating these complex and contradictory solidarities.

Literature Review

Forms of Gig Worker Solidarity

In contravention of earlier assumptions of atomized gig workers (Rosenblat, 2018), there is now acknowledgment that gig work, like all other forms of employment, is embedded with needs for socializing and support (Gray & Suri, 2019). Gig workers the world over are making de facto "communities of support" (Gregory, 2020) embodying a range of social relationships: From loose groupings with ephemeral online networks of support and some offline gathering spaces to more formal strikes and moves toward unionization. These communities are seen as emerging from the material necessities of platforms' work conditions (O'Meara, 2019). In a work environment where workers are left without much external support, these groupings provide spaces to resolve frictions in their day-to-day work, seek mentorship, combat alienation, or just build connections because they would like a space for collective grievance sharing (Gray & Suri, 2019; Gregory, 2020; Wood & Lehdonvirta, 2021). This body of scholarship provides an excellent analysis of the varying typologies of labor solidarity present within gig work.

However, less attention has been paid to the sociocultural and relational lineages of specific forms of emergent platform labor solidarity beyond the "material" work conditions of platforms. Even as these studies emerged from specific institutional, cultural, and labor regime contexts, their contextual specificities largely go unexamined as the backdrop against which gig work solidarity is being enacted. There is thus still work to be done to understand why forms of gig worker solidarity take on the form that they do in different contexts.

Having said that, a deep appreciation of context is not absent in work on digital platforms. Many authors, particularly those studying the Global South, have shown how a change in institutional context shapes the nature of platform work in different geographies (Ahmed et al., 2016; Chen, 2018; Raval, 2020; Soriano, 2021). Chen (2018) demonstrates in her study on Didi drivers in China that the preexisting informality and contingency of taxi-driving work in China helped Didi gain monopoly power quickly but also impacted taxi drivers' adaptation to the work. Noopur Raval and Joyojeet Pal's (2019) research on beauticians in India show how expectations and outcomes of tech-mediated work intersect with preexisting enactments of professionalism, gendered risks, and class positions in urban India. Similarly, Raval (2020) shows articulations of gig economy work to be intimately tied to questions of caste, class, and the physical urban form of the cities in India. In the context of the Global North, Ticona, Mateescu, and Rosenblat (2018) argue that "technological systems of work don't necessarily create similar experiences of work across different cultural contexts; rather, different professional norms and historical legacies of work can lead workers to divergent experiences of similar technologies" (p. 7). It is thus timely to consider how the socio-technical features of precarious platform work regimes in different contexts give rise to not just particular forms of work but also specific forms of digital labor solidarity (or a lack thereof).

Nascent work on contextual solidarities has taken on this mantle and started demonstrating how attitudes to kinship or existing forms of brokerage mediate gig worker collectivization (Lalvani, 2019;

Posada, 2021; Qadri & Raval, 2021; Soriano & Cabañes, 2020). This article joins these scholars in teasing apart the socio-technical factors that create local architectures of gig worker solidarity.

Context in Labor Studies

Analyzing the contextual shaping of labor solidarity is not new to scholars studying labor organizations of precarious workers. This literature has demonstrated how enactments and articulations of precarious worker solidarity are informed by local institutional factors, such as the labor process, the confines of the work, and where the workers fall within the class structure of the society they inhabit, all of which influence the political actions that they choose to leverage (Cant & Woodcock, 2020; Chun & Agarwala, 2016; Rizzo & Atzeni, 2020). Rina Agarwala (2013) in her pioneering study on informal contract workers in India demonstrates, for instance, how in India, precarious workers' demands are not mobilized under the language of workers but that of citizens because of the reigning political bent toward welfare. Chun and Agarwala (2016) argue that in the Global South, "the activation of new worker constituencies has occurred outside the sphere of traditional labor unions [through] worker centers and community unions" (p. 634). Atzeni (2016), among others, shows how even "trade unions are socially constructed organizations whose legitimacy is built on previously existing and collectively experienced issues" (p. 2). Unions' attention to gender, ethnicity, race, migration status, and also their intersections with existing political parties all influence workers' interactions with them (Rahman & Langford, 2014). Whether workers unionize or create informal collectives or choose not to organize at all is thus a manifestation of the limits and possibilities of workers' agency within particular structural conditions. As Scott (1985) argues, "parameters of resistance are also set in part by the institutions of repression" (p. 299). Without paying attention to context then, there is a risk that the political action of vulnerable populations can be misrecognized and diverse articulations of solidarity in the platform economy missed (Cant & Woodcock, 2020; Tassinari & Maccarrone, 2020).

Methods

Between 2019 and 2020, I conducted semi-structured interviews and ethnographic observations with 30 different platform driver communities in Jakarta—at each interview, I met five to 15 drivers. To understand the preexisting forms of association and work in Jakarta, I also conducted interviews with 15 offline motorbike-taxi drivers at four different taxi ranks or *pangkalans*.

Following scholars like Jamie Woodcock, Tamara Kneese, and others who have undertaken a "worker centered inquiry" of platform labor, I centered in my analysis the perspective of the ojol. This ethnographic approach to studying platform labor has allowed scholars to see the processes and relationships underpinning platform work with all their contestations and contradictions (Chen & Sun, 2020; Gregory, 2020; Heiland, 2020; Raval & Pal, 2019). Through this methodological position, one can see how the platform mediates and is mediated by the relationships it creates and how it is treated beyond just physical technology.

For this study, the site for interviews was deliberately chosen to be the basecamp to allow a deeper investigation into both the drivers' relationships with each other and the platform. At each

basecamp, I spent approximately three to four hours and also accompanied drivers to weddings, ambulance escorts, dinners, and anniversary events. Embedding myself with the workers in their community spaces allowed me to gain an understanding of drivers' collective relationships in a way I would not have been able to had I just interacted with workers individually within the confines of a ride or through an online survey. The visible artifacts at each basecamp—the logos of each community meticulously designed, the names carefully chosen to be playful—colored my perception even when the interviewees were silent. That basecamps anchored drivers in space, gave a stable point of reference in a workforce that is meant to constantly circulate. As Cant and Woodcock (2020) note, when the methodological site is the individual driver inside the car, there is also a risk of taking the platform's algorithmic control for granted with workers having little ability to contest. Through the relationships I developed by entering these community spaces, I was able to then craft more long-lasting bonds with the drivers, and our conversations continued over WhatsApp even when the in-person fieldwork was over and I had returned to Boston. I was careful to only begin asking about sensitive issues such as fissures within the community and political alliances once enough trust had been built. One of my Indonesian research assistants was also the daughter of a Gojek driver, and her relationships allowed me to be welcomed into the community spaces relatively quickly. While initially relying on her community referrals meant I often followed very specific community networks, I was eventually able to diversify my "ojol references" enough to foray into new community networks.

I also understand my position as a foreign researcher entering the intimate spaces of a marginalized population. My work would have been impossible without my research assistants, Mita, Melita, and Novi who provided incredibly nuanced sociocultural contextual information to me while also doing translation work. As any interloper, I recognize that I am probably not attuned to the many social complexities of Indonesia, and these gaps must show in my work. I, however, present this research not as the definitive commentary on digital labor in Jakarta but as a particular analysis of the forms of solidarity I encountered in the city, which I hope opens up a dialogue for others to take up the conversation where I falter. My foreigner status also benefitted me in Jakarta in ways I must acknowledge. I was able to sidestep some of the internal class and ethnic divisions of Jakarta and take on the role of the "naïve" foreigner. Somehow that I was a female Pakistani student from the United States both reassured drivers while also being a novelty factor, which encouraged them to talk to me.

Context

While the presence of this form of solidarity has been recorded in other Indonesian cities as well, such as Bandung (Frey, 2020), I focus on Jakarta as the largest market for mobility apps and the site where these groups started. Jakarta is home to 10 million people with another 3 million migrants from the wider metro area commuting to the city for work (Martinez & Masron, 2020). A rising population's expanding mobility needs, crushing traffic, and the lack of public transport coverage made popular the ojek(motorbike taxi) as the most convenient form of transport. Stationed at their pangkalans, these motorbike taxis dotted the entire landscape of Jakarta till 2015. This industry was largely unregulated, managed by self-governed groups and informal negotiations among local governments, neighborhood associations, and kinship groups. In 2010, Nadiem Makarim, a Harvard-educated entrepreneur launched a call center to centralize the operations of these disparate ojek groups.

In 2015, to tap into the growing popularity of ride-hailing around the work, he turned the call center into an app—Gojek. At the same time Grab, the Singaporean ride-hail giant, also introduced their own motorbike service in Indonesia. These two companies now dominate the mobility platform landscape in Southeast Asia, and in particular in Jakarta. Valued at more than \$10 billion each, both companies have become “super apps,” offering a range of digital services in Indonesia through their 4 million motorbike-taxi drivers: Grocery delivery, running myriad errands, rides, cleaning services, and pharmacy pickups. In response to the popularity of Gojek and Grab, customer demand for the traditional bike taxis (*opang*, a portmanteau of *ojek* and *pangkalan*) has dwindled. Existing motorbike groups were also used by Gojek to gain a foothold in the motorbike-taxi market. Drivers report Gojek launching a contractual agreement with *pangkalan* leaders to join Gojek, paying them to recruit drivers from their groups and others. With dwindling business and a changing market, even those *opang* incentivized to join Gojek, jumped ship.

In this context, *ojol* communities were formed in 2016. Originary narratives of *ojol* communities invoke tales of neglect, persecution, and isolation. Before the mobility app was introduced, the traditional *opang* ruled the road, so to speak. The disruption caused by Gojek and Grab threatened this order and eventually begot excessive violence and tensions on the street between the *opang* and *ojol*. The newly minted *ojol* thus needed not just help navigating a new system that was alien to everyone but also protection on the road. Starting in 2016, platform drivers who met on the road while waiting for orders began forming WhatsApp groups to stay in touch. Ties on WhatsApp were solidified by meetings in person, and over the course of the next two years, *ojol* developed groups that were able to resolve tensions with the *opang* by drafting binding agreements. Now, instead of traditional bike-taxi stations of the *opang*, in almost every neighborhood of Jakarta, we see *ojol* communities, a testament to their growing number and power.

Distributed Solidarity: Spatialized, Organized, and Networked

How do we understand and explain the emergence of this local form of socio-spatial architecture of solidarity crafted by Jakarta’s *ojol*? Below I lay out the contours of what I term the *ojol*’s “distributed solidarity”; a form of solidarity that is spatialized, organized, and networked. Some of the material instances of this solidarity can be seen in Figure 2. At the same time, I also sketch out how each contour emerges from interactions among histories of market organization, preexisting cultures of mutual aid, and tech-driven changes in the market’s spatial imperatives.



Figure 2. Markers of solidarity: Basecamps, emblems, and mutual aid.
Source: Photographs taken by the author.

Organized

While informal collectives routinely regulate many informal transport spaces around the world (Jack, 2020; Sopranzetti, 2017), ojol communities demonstrate a highly organized, deeply cultivated form of solidarity, which has led these communities to becoming an essential part of a driver's experience of the digital economy. Unlike more issue-based driver networks studied by literature, these strong bonds of solidarity did not emerge from a desire for collective bargaining or due to mobilization around specific demands from the state or companies. In fact, the solidarity emerges as a by-product of workers' continuing reliance on networks and reciprocal relationships, which has always been a feature of both urban life in cities of the Global South like Jakarta (Simone, 2014) as well as marginalized populations in the Global North (Spade, 2020).

This mutual aid is described as a service to one's own kin: "dari kita untuk kita" (from us, for us). Escorts are organized for ambulances carrying an ojol or ojol family member. Drivers have collectively created an emergency response service (Unit Reaksi Cepat [URC]) that responds to all emergency situations, from accidents to robberies, faster than the platform or the state's own services. In the case of floods or natural disasters, charity drives are started. Mentorship is freely provided. At one basecamp I visited, a senior female driver, Mpok, was dispensing advice on how to recover a disbanded account. At another camp, Pak Yono was telling a driver how to recognize fake orders (opik). Each community organizes its own pooled insurance. The shelters are maintained by and bills are paid for through pooled community funds. Particularly during COVID-19, these communities mobilized to provide extensive material and emotional relief to drivers in Jakarta (Qadri, 2021).

When asked why these communities of mutual aid exist in Indonesia and not elsewhere, drivers pointed to a special communitarian identity in Jakarta. Those strapped for resources or excluded from more formal systems of service provision, such as the ojol, have always communally constructed their lifestyles in Jakarta (Kusno, 2019). The city is bolstered by what Simone (2019) calls an "invisible infrastructure" of generosity where the community becomes a source of access, resources, and help. Urban neighborhoods in Jakarta thus, especially those of the urban poor, have been seen to have a strong culture of mutual obligation and support (Kusno, 2019). Bang Yo, a driver I interviewed, affirms this statement when he remembered how Grab management being Singaporean, was blindsided by the "Indonesian specific" development of ojol communities: "If we have problems we run to our friends and basecamp, not to Grab." This observation was borne out by how little Grab and Gojek feature in driver imaginations. All interviews touched on ideas of community reliance and a lack of expectations or entitlements from the platform. At the same time, they were used to the state turning a blind eye to them, "the children of the street." While their class status makes them invisible to the government, their legal status as partners does not give them rights to make claims over their employer. There is in these stories a sense of isolation of being a new figure on the urban landscape, who belongs nowhere. In a hostile urban landscape, these solidaristic communities are examples of "the working class build[ing] cells for its own defense" (McAlevey, 2015, p. 232). "Hidup di jalan itu keras" (Life on the road is hard), says one driver, "That's why community exists."

As the ojol communities grew in number, rules and organization became key for the efficient deployment of community resources. Ojol communities thus slowly became highly structured, managed entities. There is thus a set internal hierarchy for communities with a president, vice president, and treasurers. Chosen representatives in each group coordinate different aspects of the community, such as emergency responses, platform interactions, information technology issues, and opang negotiations. The URC itself has a set template for sending messages or voice notes to the group, and a standard approved chain of response.

Spatialized

A key component of Jakarta's ojol communities is their physical meeting spaces; the shelters and basecamps constructed by drivers to function as waiting posts, regulatory institutions, and community headquarters. Figure 3 shows some examples of what basecamps look like. Across Jakarta, different groups sit under fluttering fluorescent banners of their community, stamping their presence on the urban landscape through their basecamps. At their community's basecamp, drivers can rest, charge their phones, get advice, watch TV, and unwind with their friends. The actual physical space can range from being complex structures to just a blanket and banner on the road. In a work environment that can introduce spatial fragmentation of workers, the ojol basecamps become the equivalent of a shopfloor, a daily gathering space considered a necessary factor for the development of shared ties and collective identities in the literature on labor solidarity (Maffie, 2020). This spatialization also adds a level of anchoring and stability to drivers' interactions in an economy of circulation. With repeated contact with the same group, deeper ties are made every day, creating spatial and social familiarity. If anyone wants to reach someone in the community, they have an address: The basecamp.

In some aspects, basecamps are reminiscent of the preexisting form of motorbike-taxi market organization that the platform entered into, organized as it was around spatially rooted stations (called pangkalans). Basecamps are also spatially rooted waiting posts for drivers, allowing them to hang out in groups while they wait to be matched to the next ride. A driver's community, like a pangkalan, becomes a source of economic and social security through pooled insurance schemes. There are also some territorial divisions that have cropped up among basecamps, where who "responds" to an emergency, who can fundraise in an area, and who mediates conflicts with the opang in the area are dependent on basecamp location. Indeed, the wholesale move of many opang communities to mobility platforms meant these past forms of association were imported into the app-mediated mobility market.

The creation of both the pangkalan and basecamp was also made possible through common approaches to urban space in Jakarta where "space, in a way, belongs to whomever uses it" (De Boeck & Plissart, 2015, p. 190). "Random occupation of space" by residents is possible (barring crackdown from the state), allowing for simple material spaces to emerge, which in turn allow for new forms of sociality to be formed.



Figure 3. Basecamps.

Source: Photographs taken by the author.

However, the pangkalan and the basecamp differ in key ways, with divergences created as platforms changed the imperatives of the mobility market. Unlike the pangkalan, the basecamp is not a space of work or just a waiting station for drivers (Jack, 2020); nor is it an accidental meeting spot driven by the demands of the platforms, for example, airport pickup/drop-off zones (Wells et al., 2020). They are spaces deliberately curated by drivers, without their work demanding it, to provide rest, access to services, mentorship, and a sense of community.

For the opang work was tied to their specific pangkalan: They could only operate their motorbike taxis if they were associated with an existing pangkalan and could only pick up passengers at the bike-taxi station itself. This gatekeeping became a way to regulate the supply of motorbike-taxi drivers in the city. In

fact, the centrality of these pangkalans to the business of traditional motorbike-taxi drivers gave them the name ojek pangkalan (or opang for short).

The ojol, though, do not rely on the basecamp for income. In fact, drivers specifically insist basecamps are not a workplace but their second homes, visiting at least once a day even if they are not working because they offer a space of respite and joy. As an opang driver commented, by separating the workplace from the place of rest, basecamps allow for more intimate relationships to develop, helping drivers avoid the abstractions, sterility, and isolation that can come with digital work. Basecamp locations are chosen deliberately by drivers of a particular community, and its physical structures are designed and built to their own specifications. Reasons for the choice range from knowing the local government body representatives to the area being in the center of multiple drivers' routes or near their homes.

Furthermore, the basecamps, decorated with logos and insignias of the communities, become a physical manifestation of the solidarity and networking among drivers that mobility platforms would like to render invisible. The collectives of drivers, hanging out at every other stop, their banners floating, their emblems proudly displayed, cannot be missed as you make your way through Jakarta. The visibility of ojol through their basecamps has, in fact, made them a latent political force in the country most relevant in the supposedly special treatment they got during COVID-19 (Qadri, 2021). This paraphernalia and display did not exist at the pangkalan—at most, there was a sign that read "OJEK," indicating the presence of a station.

Networked

This solidarity though is not just internally present within a community but is deliberately cultivated in cross-community and cross-company alliances. There are multiple ojol umbrella organizations that can enfold smaller communities within their structure. The largest have around 40–50 previously "independent" communities as part of their "association" or franchise. Communities that choose to remain independent often create horizontal relationships of friendship and mutuality with other communities. Thus, drivers' solidarity develops into webs of networks, both physical and digital, that spread across the city. Like the factories that created sociality among workers by bringing people together physically into the city, basecamps dotted around the city and WhatsApp are able to create ties of drivers residing all across the metropolitan region.

The imagination of solidarity for ojol, as a result, is geographically much wider than that present within the opang. All ex-opang drivers interviewed mentioned this difference, explaining that traditionally opang ties were limited to their own station. Opang belonging to one pangkalan could never visit another opang station, and if anyone did, the receiving opang were either hostile or rude. On the other hand, every ojol base camp we visited had a steady stream of ojol from other basecamps coming for a rest or a chat.

The need for this networked solidarity arose from the de-territorialization of work that platforms encouraged. By habit, custom, and agreements, traditional bike taxis returned to their stations after rides since that was the only spot from where they could pick up customers. Most pangkalans operated

only to serve "masyarakat sekitar" (their immediate environment, anecdotally reported to be within a 2-km radius of the station). Thus, they did not have the need to forge geographically dispersed connections, and their driver network remained limited to the station they embedded themselves in. In the world of platforms though this spatial gating does not formally exist. Drivers during the course of their workday could be sent to new terrains at all hours, which presented unfamiliar roads, socio-spatial governance regimes, and unknown safety threats. Thus, it became important to scale relationships across the city and cover as many neighborhoods as possible in a web of mutual aid and interconnectivity. The wider the network of familiarity, the more widespread the safe areas for ojol and the greater the reach of and access to updated information.

Expanding an ojol's network through cross-basecamp solidarity is considered a service to the community. Drivers of a community who take long-distance orders are encouraged to visit other community basecamps to form bonds. As described by one driver, they become "a pawn in the game" of opening the way for their community or a "friendship network" in new areas. Communities often place their basecamps' location on Google Maps, allowing drivers to search quickly for any community present in the area they are visiting. Whenever a member from another basecamp visits, they are handed a souvenir (usually a patch or emblem as they are called, which can be sewn onto jackets). If a basecamp is being formed in one neighborhood, often ojol members of that community visit surrounding basecamps to cultivate goodwill among each other.

This geographically widespread imagination of solidarity has also been possible because the platforms implicitly opened up more markets for drivers who were no longer beholden to just one area for customers. Earlier, rules of the opang market necessitated spatial competition, where opang were tied to their pangkalan for orders, and with limited orders in a small area, other opang showing up from another area could be competition. As an opang driver clarified, "in the pangkalan more members means having more business rivals. The pangkalan is a place of business, and when opang hang out there their relationships are limited to professional settings." Thus, increasing membership would directly threaten the economic interests of the existing members. Similarly, showing up at another pangkalan was considered inappropriate since it was akin to entering someone's office without permission while also threatening their business. Thus, cross-pangkalan solidarity and communication were difficult. With platforms, drivers can operate anywhere in the city; if they do not get orders in one area they are always free to move to another.

The decoupling of business from specific spatial stations by platforms, also meant the basecamp did not need to be viewed as a place of business as much as a place of socializing, which encouraged more emotive ties. As platform rules allowed a wider group identity to be made, ojol also deliberately curated it with community names, emblems, celebrations of anniversaries and family days. This is a level of organization and solidarity and attachment to work communities that were not witnessed within the opang. The opang had no names, logos, customized jackets, or a URC as there was less attachment to the wider identity of being a motorbike-taxi driver.

Where one form of technology is helping conditions of solidarity, another provides a platform through which to execute it. WhatsApp groups are the spaces in which these geographically far-flung cross-

community networks and relationships are enacted, as seen in other studies (Gray, Suri, Ali, & Kulkarni, 2016; Maffie, 2020; Wood, Lehdonvirta, & Graham, 2018). These groups have provided an additional space, in conjunction with the basecamp, for drivers to both gain key information about work, allow for coordinating access to widespread community resources, and also feel closer to far-flung ojol friends. For instance, if a komunitas member takes a long order across the city, they can reach out to their own community's WhatsApp group and inquire whether there is a basecamp nearby—a representative would then reach out to the neighborhood-level, urban-level, or regional WhatsApp groups for answers. If drivers are out on an order late at night, their entire basecamp is sent their live location through WhatsApp, and someone is constantly “on their back,” that is, tracking them till they return home safe. If they stop moving for a stretch of time, someone will call them to check in.

In fact, one driver in an interview said opang did not have similar forms of solidarity because they did not have WhatsApp when pangkalans were formed. The use of Gojek (which for some was the first mobile application they used) forced drivers to become technologically savvy and gave them a need to be on their phones, which then allowed the use of WhatsApp to become second nature. The ojol needed to communicate with contacts with whom they otherwise shared no connections, either geographic or social, and get up-to-date information on accidents, violence, and safety. At inception, these WhatsApp groups enabled far-flung information networks to be created and for individuals who only shared similar waiting spots to become friends. Later, these WhatsApp groups allowed drivers to create cohesive group identities. Opang, on the other hand, did not need to use such digital communication techniques because they were “bound to their pangkalans.”

Discussion

The case of ojol solidarity in Jakarta shows how forms of gig worker collectivization are deeply contextual: A result of a dance between the technological and the social. Changing the market imperatives, social media technologies have interacted with existing socio-spatial conditions of the city to form a local form of solidarity I call distributed solidarity—spatially rooted, networked through physical and online spaces, and highly organized. This solidarity is evidence of the surprising hybridity that emerges as the digital is domesticated and implicated in local social relationships.

Contextual Solidarities

The practices of ojol show us that context is not just a backdrop but an active shaper of the possibilities of solidarity. By being attuned to the lineages of specific forms of emergent platform labor solidarity we can begin to explain why gig worker collectives can take on different forms depending on the sociohistorical conditions within which the work is embedded. Thus, this article narrated the resilience of social/relational institutions through moments of technological change as well as the transformations wrought by new digital tools.

The case of the ojol is thus a reminder that technological change is always filtered through various human and institutional decisions and localized in new contexts (Arora, 2019; Castells, 2010; Graham & Marvin, 2001; Nye, 1990). Distributed solidarity becomes an example of how “local practices resist, refuse,

internalize, and reshape a foreign technology and associated values" (Chandra, Ahmed, & Pal, 2017, p. 4750), a reflection of an encounter between digital variables (conditions created by technology) and "analogue" variables (preexisting cultural/social/economic conditions) that creates "new hybrid forms, design and technology" (Irani, Vertesi, Dourish, Philip, & Grinter, 2010, p. 20). Technologies are also always "adopted, adapted, and modified by people to fit their own practices, according to their needs, values, interests and desires," used in ways very different from those conceived by the designers (Castells, 2007, p. 125). Yet, particularly with critical accounts of technological development, especially in the Global South, discourse associates technology with inherently mechanistic tendencies where technology constructs a "kind of world the machine needs" and "introduces order . . . clarifies, arranges, rationalizes" (Ellul, 1964, p. 19). Such perspectives set up sharp boundaries between what is considered the socially embedded work of pre-automation times, and technologically mediated rationalized work that is introduced post-automation. This means they often dismiss the resilience of the local institutions, especially of informal markets, which have been shown to have created "modern" internal institutions that regulate production and distribution, create shared norms, and furnish an economic infrastructure (Amin, 2014).

The ojol's articulation of solidarity outside union structures also demonstrates how a spectrum of rhetoric, entitlements, and strategies can be mobilized to build worker power even before unionization can happen. As is argued by scholars like Veena Dubal and Louis Hyman, platform-mediated work does not necessarily represent a disconnect from prior forms of employment relationships. This article thus consciously centers the perspective of digital workers in a non-Western urban context. From the perspective of cities like Jakarta, this continuity with prior forms of social relationships also means acknowledging that since work has always been precarious, responses to that precarity will be grounded in local institutions and power struggles. As scholars of a form of precarious work, we must understand articulations of solidarities on their own terms without measuring them against specific ideas of what organization should look like. It is only then that we can allow room for more diverse practices and expressions of solidarity within our lexicon of labor organization.

Relationships in the South

One aim of the article was to argue for the importance of focusing on collective relationships in the Global South. Logics of computation underpinning platform technologies already see socially embedded relationships as friction that must be automated out. As researchers, we can highlight the importance of these relationships, not just as romanticized notions of resistance, but as culturally and historically important modes of urban life, which technology can interact with but not necessarily do away with. This is particularly important in the South where literature has examined how any urban intervention by powerful actors, whether the state or private entities, interrupts various human and institutional frameworks and requires social relationships to be bolstered and actualized (Castells, 2010; Graham & Marvin, 2001; Nye, 1990). Survival for the urban poor in cities of the Global South is also often tied to networks and reciprocal relationships (Simone, 2004). Self-organized provision of resources and aid is necessary for gaining access to shelter, health, financial systems, and so forth, for those excluded from formal systems. As Simone (2014) elucidates, these cities compel interactions and cooperation forcing residents to make what he calls "provisional collaborations" (p. 262). These collaborations are made "through tough struggles of give-and-take, of incremental adjustments and adaptations, and through intricate uses of the material environment"

(Simone, 2014, p. 262). The experience of technological systems in this context then cannot escape these complex interactions.

Much has been written about how technology strips from us what it means to be human, by optimizing, creating a frictionless utopia, and “automating” hard parts of relationships. However, making the global technology of platforms function at their local scale requires deep knowledge and thick relationships of social embeddedness that are borne from collective cultures. In the narrative of the ojol, the focus on the collective is an enduring message. Our work thus needs to shift attention away from the individual user to the collective: The social norms, cultural codes, and collaborative networks from which these counter-optimizations are borne.

Humanizing Stories of Labor

More so than anything, the practices of distributed solidarity developed by the ojol should remind scholars to humanize the stories we tell about labor and disruption. My aim is not to deny the structural exploitation or trivialize the deprivations under which drivers operate through mobility platforms. It is instead to draw attention to the ojol of Jakarta as they show us how digital workers can create systems of joy, collaboration, and identity to avoid the abstractions, sterility, and isolation that can come with digital work. Of course, they also show us how much burden drivers have to take on to make their work tenable. Such worker solidarities are always complex and contradictory—simultaneously allowing co-option and resistance (Rai, 2019). In the story of Jakarta’s platform work narrated by the ojol, there are themes not only of exploitation but also of agency, social connections, and how existing practices reach out through the technological moment to shape hybrid futures. Making space for such diverse articulations allows the workers to express their full humanity as they contend with larger structures of precarious work.

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