Technology for Whom?
Owning Our Platforms

by Minsun Ji

To prevent their bodies from becoming an on-call commodity owned by an algorithmic app, and the value of their labor getting extracted by capitalists, workers and movements must mobilize to own the apps themselves.

Back in 1995, in the early days of the internet, a San Francisco innovator named Craig Newmark started a small email distribution list for friends, highlighting local events across the Bay Area. Thus was born Craigslist, which soon expanded into a web-based platform where users could connect directly with each other at will to sell, trade, and donate goods, services, and gigs. It was the early stirrings of what we now call the "platform economy."

The early promise of this emerging platform economy seemed fantastical. New computer and internet technologies would facilitate direct connections between individual users anywhere in the world, using web-based platforms provided by companies like Craigslist, eBay, Airbnb, Uber, and Grubhub. The open and direct connections among individual users would allow for the efficient exchange of goods, services, and information. Want to share your extra room with a traveler and make a few bucks? Airbnb has an app for that. Want to trade old auto parts for used furniture? Craigslist can help. Want to earn some money in your spare time by ferrying food or riders around town? Check out Grubhub or Uber.

The platform economy was pitched as revolutionary and liberating. Relations could be smooth and direct over these platforms. Anyone could join and use them to efficiently offer services and receive products. Big thinkers like Jeremy Rifkin predicted that the costs of exchanging and distributing goods and services could soon become "near zero" with the platform revolution.[1] Everyone could become a microentrepreneur and could buy, sell, or offer their products or labor as they wished and without the control of legacy companies with their ponderous old factory floors, taxi garage headquarters, and department store showcases.

"KAINJI" BY KOMI OLAFIMIHAN/WWW.KOMIOLAF.COM

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Certainly, people seemed to appreciate access to the platform apps that began changing their world. Amazon, born in 1995 as an online bookstore, grew by the 2000s to become the largest global e-commerce platform company in existence. Airbnb and Uber emerged as platform companies providing services without actually owning hotels (in the case of Airbnb) and vehicles (in the case of Uber—soon to be joined by Lyft), and quickly came to disrupt and dominate their respective industries.

Globally, the number of platform companies rose five times between 2010 and 2021;[2] and, as of 2022, about 20 percent of all market commerce in the United States is now conducted online.[3] By signing up for app access, individual Uber or Lyft drivers can choose their hours and place of work, enjoying independence not promised by traditional taxi companies—and customers can hail rides from strangers quickly and affordably. Similarly, Instacart grocery-delivery workers don't report to a single store as their "boss," and are free to work the hours they wish and take on the deliveries and delivery payments they wish, using their platform app—and shoppers can order from home.

What's not to like?

Plenty.

NOT SO ROSY AFTER ALL

While economically privileged consumers get to enjoy the lifestyle provided by technological innovation and on-demand platform services, the situation hasn't been so rosy for less privileged consumers and most workers. These "sharing" tech companies are, in the end, profit-seeking endeavors, and as such they reproduce the all-too-familiar negative aspects of capitalism. For instance, tech companies use algorithmic management to precisely surveil and manage the details of workers' daily working conditions—tracking every delivery time, cataloging every customer review, mapping workers' daily locations, even noting the length of bathroom breaks. This tight control of workers via technology is a form of "algorithmic despotism,"[4] making workers constantly aware of their electronic surveillance, and pushing them to remain glued to their app screens and prepared to accept long hours and unattractive orders so as to remain in the good graces of the algorithm and receive future work orders.

Instacart, for example, sometimes bundles multiple orders from different addresses but only pays for the work of one order. Some orders also come with potentially dangerous conditions, such as carrying heavy packages up stairs—and delivery workers have experienced assault and even murder on their rounds. Yet, for the most part, Instacart offers no injury or death benefits, and workers are forced to rely on crowdfunding to cover their medical costs.[5] As for Uber and Lyft, these companies maintain policies that reward workers for low ride-cancellation rates—policies that are so tightly enforced, drivers are pressured to continue their rides even in the face of verbal abuse or physical assault. After experiencing thousands of assaults without company support, Uber and Lyft drivers initiated a wave of lawsuits against the companies in 2021, receiving a mostly antagonistic company response.[6]

Racist practices familiar within capitalism are also reproduced in the platform economy. Research has found, for instance, that rideshare drivers of color systematically receive lower reviews and tips. Tracking and reporting on such racialized work experiences could inform public education campaigns and push companies to proactively prove that their app does not discriminate against workers of color, as well as to develop policies to mitigate workplace bias—but rideshare companies like Uber and Lyft, for example, are not required to track driver demographics or respond to patterns of discrimination by riders, since these drivers aren't classified as company employees.[7]

Relatedly, racially biased facial-recognition technology has resulted in drivers of color losing jobs due to computer-assisted mismatches, without any due process or evidence of wrongdoing.[8] Uber's and Lyft's rideshare systems require drivers to log on to the systems through facial verification software, but the current verification software used by these companies is well-known for its difficulties in accurately identifying the faces of people of color. Nevertheless, when the software consistently reports a mismatch, a driver can be summarily dismissed.

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Though workplace management and quality control are reasonable aspects of any employment system, the problem with the most dominant "sharing economy" apps is that they are entirely owned and managed by profit-seeking capitalist companies, while workers themselves ("independent contractors" without rights in the company) have no access to the innards of these proprietary apps and thus have little understanding, control, or even voice in how opaque algorithms are used to tightly manage their work lives, and reproduce capitalist structures of inequality and oppression.[9]

It is also well understood that capitalist tech companies systematically mine the data from their "sharing economy" apps to discover all manner of personal or private information about their workers and customers, both in order to hire workers who have a more "compliant" digital profile and to manipulate their customers—all in service of greater profits for the company. In their report *Data Capitalism and Algorithmic Racism*, Yeshimabeit Milner and Amy Traub demonstrate how this behavior exacerbates racial inequality, ever more surveillance, and other discriminations that predominantly affect people of color—by, for example, digitally channeling lower-income users toward predatory services (e.g., payday loans), subpar products (e.g., lower-quality homes), and job openings that the companies have deemed "appropriate" to their customers' social position.[10]

Because of their designation as independent contractors—that is, because they are not defined as full-time employees of a company—platform workers typically receive very low wages, and have few worker protections or benefits.[11] According to a 2017 report, 57.3 million Americans were by then working as freelancers, with 36 percent of all U.S. workers (and a majority of all millennials) participating in the gig/platform economy as their first or secondary job; "freelance" workers like these were projected to be a majority of all workers by 2027.[12] At the same time—as shown by an International Monetary Fund (IMF) report in 2017—technological advancement, especially as regards the growth of the platform economy, had been chipping away at the share of income for workers, resulting in half of the decline in workers' share of income across the globe between 1990 and 2015.[13]

Consider, for example, the case of Instacart, an on-demand grocery delivery platform founded in San Francisco in 2012. Instacart allows customers to use a digital app to choose a shopper, who picks up requested groceries and delivers them to the customer's location. Instacart has partnerships with six hundred retailers across forty-five thousand stores in the United States and Canada, and features more than 500,000 "independent" full-service shoppers constantly clicking the app looking for delivery jobs.[14] The company (which accounted for 57 percent of the market for grocery delivery in April of 2020)[15] takes a percentage of the fee for each delivery, though it claims all delivery agents are independent contractors who don't work for the company.[16] Because of this independent contractor status, as well as the requirement to submit a percentage of all delivery fees to the Instacart platform, a study by Working Washington found that some Instacart workers earn as little as $2.74 an hour, and a national survey of Instacart workers found average wages (before expenses) of just $9.50 an hour.[17]

In addition to receiving low pay with few benefits for the hours they work, independent platform workers are rarely paid anything for their time waiting for a gig to pop up, such as when Instacart workers sit in grocery store parking lots incessantly clicking on the app and hoping for a delivery gig to materialize. Workers are not paid for training time to master a job or for transit time between gigs. Unavoidable work-related costs like gas and vehicle maintenance for Uber drivers and delivery workers are sloughed off the company books and forced onto the independent contractor.

As MIT Professor Daron Acemoglu describes it, such "excessive automation" of the platform workforce has resulted in a workplace dominated by algorithmic management systems tracking every detail of each worker's response rate, delivery time, and customer reviews.[18] In this world of management by algorithm, many workers feel that they have lost dignity and voice.

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services, synergistic "network effects" have added both value and profitability to several dominant platform companies.

Uber, for example, has reported soaring growth over the last six years, with revenues growing 454 percent from 2016 to 2021, rising to over $17 billion a year.[19] While both Uber and Lyft reported their highest revenues and profits in 2021 (partly due to increases in surge fare pricing of up to 50 percent compared with prepandemic costs),[20] drivers haven't enjoyed higher earnings. In fact, drivers' share of the fare for each ride has instead *decreased* over the years.[21] Such details are hard to track, however, as rideshare companies don't always allow drivers to clearly see the total fare paid by the customer. For example, Lyft doesn't report total individual fares to drivers at all, and only reports weekly aggregate fares for individual drivers, while a California study by Mission Local found that Uber reports fares to drivers that are measurably lower than the fares actually paid.[22] Nationwide, Uber adopted a complex new "full fare" algorithm in 2021 that many drivers claim makes it increasingly difficult to track rider fares or understand what they will earn on a given ride.[23] Other hits to driver earnings in the last two years include rideshare companies requiring increased driver wait times for rider no-shows, "reduction in minimum pay for long-distance trips," reduced customer tips due to Uber and Lyft's higher base fares, and reduced mileage costs to some airports.[24]

PLATFORM CAPITALISM

Although many platform companies such as Uber, Lyft, and Airbnb have claimed credit for advancing a sharing economy—the preferred term for which is now *solidarity economy*—model, they don't in fact fall under that category, because they seek to extract maximum profits from their operations.[25] These companies are wedded to a model of platform capitalism and do not advance notions of sharing rides or homes in the absence of hefty profit potential.[26]

In the case of Uber, for example, robust revenues have certainly not been shared with workers, who earn far-below-average incomes and face working conditions of exceptionally long and harsh hours.[27] Admittedly, high revenues don't necessarily mean high profits, as Uber reports adjusted revenues before discounting interest, taxes, depreciation, amortization, or one-time costs like stock-based compensation to executives.[28] Still, the company is earning enough in revenues to have enabled it to provide its CEO with $12 to $42 million a year between 2019 and 2021, and Uber reported its first net profits amid record-breaking revenues in 2021.[29]

Airbnb is another example of extractive platform capitalism, as the company delivers hearty profits to its private owners, who are far removed from local host communities. Airbnb's model of turning all hosts into profit-seeking microentrepreneurs of short-term rentals has also been found to reduce the stock of affordable housing in communities, undermine local community rhythms with streams of short-term renters, and result in reduced local tax revenues from the hospitality sector. (In many U.S. cities, Airbnb hosts avoid traditional hotel taxation.)[30]

This pattern of immense platform business profits and low worker wages proves that technological advancement alone is not enough to improve the condition of average workers. As Marx classically argued, the astronomical corporate profits made possible by new technologies do not come out of thin air but in fact ultimately only come about by "undermining the original sources of all wealth"—the soil and the workers' labor.[31] Technology is a social product and can have benefits across society, but the core questions must always be: Who *owns* and *controls* the technology, and how will the average worker respond to it?

PLATFORM COOPERATIVISM

The term *platform cooperativism* is relatively new, introduced in 2014 by Trebor Scholz, associate professor of culture and media at the New School in New York City.[32] Scholz and associates use the term to describe the rapid growth of worldwide efforts to establish worker-owned platform cooperatives that are directly owned and managed by workers themselves and that use websites and mobile apps to sell goods or services. If the Uber and Lyft drivers in a particular city united to develop or purchase their own ride-hailing app, and collectively governed the use of the app and the

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equitable distribution of resulting revenues, this would be a platform cooperative.

Recent reports have documented over five hundred platform co-op projects in thirty-four countries, and some of these platform cooperatives have tens of thousands of members.[33] One factor in the rapid growth of worker cooperatives in the United States is the burst of local and national cooperative movement strategies, since national organizations like the United States Federation of Worker Cooperatives (USFWC) and the Democracy at Work Institute (DAWI) have increasingly focused on converting existing businesses into worker cooperatives to scale up the movement. Some states, such as Colorado, have started official employee-ownership commissions and dedicated new funding to support business conversion to employee-owned cooperatives or ESOPs (employee stock ownership plans).

The principles of these platform cooperatives are the same as those of traditional cooperatives: they are democratically owned and governed by workers, customers, and other stakeholders; they adhere to principles of equity in the distribution of revenues; and they strive to be good citizens in their communities. They also have many potential benefits for worker-owners and the broader cooperative movement. First, they can become a model for creating a true solidarity economy. Second, given their capacity to quickly develop very large membership bases, they have the potential to bring more visibility and muscle to the cooperative movement writ large.

Regarding modeling the principles and practices of a true solidarity economy, many members of platform cooperatives seek more egalitarian ways of distributing revenues, support a more democratic governance system, and, as part of the broader worker-cooperative movement, tend toward advancing the humanitarian principles of the International Cooperative Alliance, including "Concern for Community."[34]

For instance, Stocksy United, a platform cooperative for photographers, videographers, and artists generally, has a fair wage distribution system for members. PlatformX, an emerging platform cooperative seeking an alternative to the extractive capitalist model of Upwork or Amazon Mechanical Turk (platforms that help businesses outsource tasks and operations to freelancers), doesn't take a commission and requires users to contribute to local charities or community-based organizations.[35] The Open Food Network, an international platform cooperative, has a focus on helping local farmers connect to customers with sales of their organic harvest.[36] Farmers can begin using the site for free, and commissions on food sales are very low. And Fairbnb (a community-based alternative to Airbnb, based in Europe), operates a nonextractive business model in which investors have a capped return on investment, lodging rates are kept lower than Airbnb's, and 50 percent of all client fees go back to community projects.[37]

And there are yet more radical alternatives emerging—like the BeWelcome platform cooperative, which connects travelers to people who wish to voluntarily share their homes, and forbids any payment for lodging.[38] Through these alternatives, innovative platform cooperatives are advancing a true solidarity economy in their local communities and present not just a substantive alternative to standard platform capitalism but also an explicit corrective to its attempt to monetize the alternative.

In terms of helping to power the cooperative movement more generally: despite the movement's accomplishments—and indeed, the movement has grown rapidly since the global economic crisis in 2008 (and especially rapidly over the past two years)—there were still only about 465 worker cooperatives in the United States in 2019, producing just $505 million in revenues (the number of worker co-ops has since grown to 612).[39] This is a tiny share of the U.S. economy, though the employee-owned business sector grows substantially when counting employee stock ownership plans (ESOPs), of which there were 6,482 in 2019, holding more than $1.6 trillion in assets.[40] Platform cooperatives, which can have a much larger membership base than traditional cooperatives operating out of a physical space, are well positioned to expand the movement—demonstrating, as they do, that worker-owned cooperatives can grow large and successful by taking advantage of the efficiencies and network effects of the platform era.

Despite promising developments, platform cooperatives face obstacles because they are forced to exist within—or at best, alongside—capitalism.

For instance, New York's Drivers Cooperative has recently exceeded five thousand members, and it is expected to have more than ten thousand worker-owners once an on-demand app (comparable to Uber) is launched in early fall of 2022.[41] After the launch in New York City, plans are that New York's Drivers Cooperative will share its platform technology with organized workers in other major cities, with the possible result of tens of thousands of new worker-owners joining the cooperative movement. Other examples of large membership platform cooperatives include: Belgium's Smart (also known as SMart), a platform cooperative for freelancers founded in 1998, with over one hundred thousand members across nine different European countries);[42] Eva, a local delivery and ride-share platform cooperative established in Canada in 2017, which has more than forty-five hundred partners working together;[43] and Stocksy United (mentioned earlier), founded in 2012, which has over one thousand members and generates over one million photographs, videos, and artworks every year.[44]

A CAPITAL CONUNDRUM

Despite promising developments, platform cooperatives face obstacles because they are forced to exist within—or at best, alongside—capitalism. Thus, the most immediate challenge for most platform cooperatives is their lack of access to capital. (Raising capital is an obstacle not only for cooperatives, of course—currently, fewer than 1 percent of all new small businesses are able to raise venture capital to help them grow.)[45]

Compounding the normal difficulties of raising capital, platform cooperatives face additional problem of larger start-up costs. Due to the high cost of developing a polished and reliable internet platform, platform cooperatives are exceptionally vulnerable to technical and financial challenges. The Stocksy platform cooperative only got off the ground by accessing $1 million of venture capital, which was borrowed from two founders' wealth.[46] And The Drivers Cooperative in New York raised over $1.6 million, much of it through crowdfunding—a rare achievement.[47] Even so, this money is not enough to support outreach to other cities to start their own driver cooperatives.

Another key problem for platform cooperatives is that their business model is based on unique value propositions (equitable pay, limited extraction of profit, concern for community) that aren't attractive to most traditional investors. Early investors are loath to risk capital when they are so limited in their ability to capture returns from future revenue streams. With hundreds of millions (and even billions) of dollars of venture capital flowing into early iterations of companies like Airbnb and Uber—and with these companies' platform capitalism model of cheap labor and extractive profits—it is hard to imagine most platform cooperatives being able to realistically compete with the artificially low prices and high profits of dominant platform companies.

But still, some innovators are convinced a platform cooperative movement can be well funded. In 2021, the United Kingdom launched an "accelerator initiative" for platform co-ops under the direction of Programme Manager Ludovica Rogers. Though Rogers is aware of the capital conundrum, she maintains that a platform cooperative economy is still possible: "The first challenge to address is imagination," Rogers argues. "We are becoming so dependent on Big Tech that we are starting to believe that there are no alternatives to the big monopolistic platforms. Though platform co-ops are still few and small in scale, they show that another way is actually possible."[48] The key, Rogers maintains, is to develop radical new strategies for financing social purpose investments, for funding communitarian rather than extractive business practices.[49]

And, although most mainstream investors are unlikely to support platform cooperatives, there is an array of possible funding solutions for such initiatives. As described by the Shareable and Grassroots Economic Organizing websites, foundations are increasingly attuned to the importance of humanizing the platform economy, and are growing their financial support of platform cooperatives.[50] Cooperative banks and credit unions are a possible source of business capital, as well. Crowdfunding campaigns have raised over $1 million to launch platform cooperatives, as happened with The Drivers Cooperative in New York. And unions have the capacity to invest both capital and technical support behind platform cooperatives.

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But in the end, all of these avenues are quite limited in terms of the capital they can provide. The real money—the serious capital necessary to meet the scale of the challenge—remains in two big buckets: deep-pocketed private investors and government coffers. In terms of traditional investors, the executive director of Start.coop, Greg Brodsky, has emphasized that start-up cooperatives will never be scaled up without the support of more of these whale investors than we're seeing.[51] But while many traditional investors will probably never be attracted to the social mission of platform cooperatives, there *is* increasing interest in such causes among a pool of more patient social investors with longer time horizons and at least some stated community commitment. For these investors, there exist innovative tools like withdrawable community shares, which are shares in a cooperative that cannot be sold, traded, or transferred, but which earn an annual interest rate until they are withdrawn from the business enterprise (which is only allowed under the condition that the business has sufficient cash reserves to pay for the withdrawal).[52]

TOOLS OF DEMOCRACY

Although these tools of alternative financing have some promise, the potential of platform cooperatives to fundamentally change worker conditions in the gig economy will never be well realized within the extant capitalist economy. The "degeneration thesis" has long held that worker cooperatives are inherently weak within a capitalist profit-taking system, and will inevitably degenerate into capitalist enterprises themselves as they seek economic survival, or remain small niche innovations without broader impact.[53] Though strategies to resist either economic obscurity or capitalist degeneration exist, it seems a fair bet that relying on either economic or technical innovation alone to scale up the platform cooperative movement will ultimately fail. Something more is needed.

The most promising strategy may well be to take up the old tools of democracy, and mobilize the power and finances of the state to moderate the brutality of platform capitalism by funding a healthy dose of platform cooperativism. There is no reason that both national and local governments cannot be more active in creating, funding, and supporting platform cooperatives, and involving cooperative leaders in blue-ribbon task forces regarding how best to reform and regulate monopolistic Big Tech. In this regard, the problem for platform cooperatives is not so much technical or financial as it is political. The question then becomes how to mobilize serious political support behind a cooperative movement that is demonstrably better for average workers and community health than typical platform capitalism.

There has been some movement in this direction. In 2018, a national proposal was floated for a "Bill of Rights for American Workers Building Support for Cooperatively-Owned Businesses that are Democratically-Owned and Governed."[54] And in 2020, California's Cooperative Economy Act was drafted by labor unions and community organizations, and put forward by Assemblymember Mia Bonta.[55] Although these two labor bills to protect platform workers have not passed, the focus on new state policies to protect platform workers is definitely growing. For instance, Scholz, who has become recognized as the leading scholar of platform cooperativism in the United States, recently circulated a white paper urging municipal and national governments to develop policy incentives providing preferential treatment for platform cooperatives, create more public lending programs, and expand public participation in multistakeholder cooperatives via direct state ownership of co-op shares, among other stipulations.[56]

Substantial government support and policy change will be critical if platform cooperatives are ever to thrive. Just as Franklin Roosevelt's policy initiatives during the New Deal played an important role in the rapid growth of agricultural and rural electrical cooperatives, new government policy and funding support can change the employment landscape for those most vulnerable to exploitative platform capitalism.

Growing government support in South Korea provides one example of the possibilities. Both the national government and Seoul Metropolitan Government have passed rules guiding "Public Procurement for Realization of Social Values."[57] These ordinances (together with annual public procurement and social economy expos for government

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officials) require affirmative efforts by government agencies to purchase products from social economy enterprises like platform cooperatives. As a result, the total value of Seoul's public procurement from social economy enterprise more than tripled between 2012 and 2018, growing to 136.9 billion in South Korean won (KRW) ($108.5 million in U.S. dollars) in 2018.[58] Seoul has also launched its own publicly supported social investment fund (with $135 million in U.S. dollars in 2022),[59] and provides substantial capacity building assistance to social economy enterprises across the city. Substantial expansion of just this kind of state action is needed everywhere to help local cooperatives meet the challenge of global platform capitalism.

To pursue this kind of global expansion of state support, platform cooperatives could benefit from forming a federation of international platform cooperatives, helping platform cooperatives grow to scale over time. Already, some platform cooperatives have a global presence. For instance, the Smart freelancer cooperative has offices in eight European countries, the CoopCycle biking platform cooperative is active across Europe, and the Open Food Network operates in various nations. These kinds of globalizing cooperatives could lay the foundation for creating an international federation capable of mobilizing state power across the globe and competing with the brutal force of multinational corporations. They can also play a key role in national legislation supporting open-source software and collective ownership of sharing platform technologies, such that collective and communitarian approaches—rather than capitalist proprietary ownership—come to play a larger role in the platform economy. The theoretical and practical models for shared and cooperative ownership of the platforms exist—consider, for example, Nathan Schneider's "exit to community" strategies [60]—but it will take serious political action and legal innovation to take them to scale, whether through top-down nationalization of the capitalist platforms or bottom-up socialist efforts to build thriving worker cooperative platforms.[61]

The platform cooperative movement seeks to make the platform economy more humanistic and equitable—but it will take long and hard work, and dedicated engagement by workers themselves, to sustain what in the end must be a political as much as an economic transformation. Such risky economic ambition as building platform cooperatives requires an activation of the "animal spirits" of workers—a term used by John Maynard Keynes to describe a confident, emotional mindset that some kind of positive result will be achieved through creative action rather than by not doing anything at all.[62] Indeed, it takes ambitious animal spirits just to form a cooperative—to do the hard work of learning to trust one another, establish and practice rules for democratic management, and perform all the tasks of business management.

But more is needed than Keynes's economic "animal spirits." In order to evolve the platform cooperative movement in the United States and elsewhere, workers will need to go beyond economic innovation—they must organize their political power to mobilize state support. In other words, they must not only activate their "animal spirits" but also be the "political animals" that Aristotle once described—capable of values leadership, policy advocacy, and coalition building to grow the economic, social, and *political* power of platform cooperatives.[63] We know from experience that technological advances do not always work to the benefit of marginalized communities or average workers. It is always a question of "Technology for whom?"—as in, "Who owns the app? Who controls the code?" In the end, these are not questions of technical capacity but of political power. Platform cooperatives are a strategy of political and organizational might, uniting workers in a concrete way to own the conditions of their work and to redirect technology to the benefit of average workers, not global investors. To prevent their bodies from becoming an on-call commodity owned by an algorithmic app, and the value of their labor getting extracted by capitalists, workers and movements must mobilize to own the apps themselves. When workers organize to own the conditions of their workplace, then fair earnings, dignified work, and democratized management can become substantive realities instead of crumbs pried from the edges of privatized, profit-seeking apps.

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