



**Platform
Cooperativism
Consortium**



INSTITUTE
FOR THE
COOPERATIVE
DIGITAL
ECONOMY

DRIVING ECONOMIC JUSTICE: COOPERATIVE TAXIS IN SAN DIEGO

A Report by

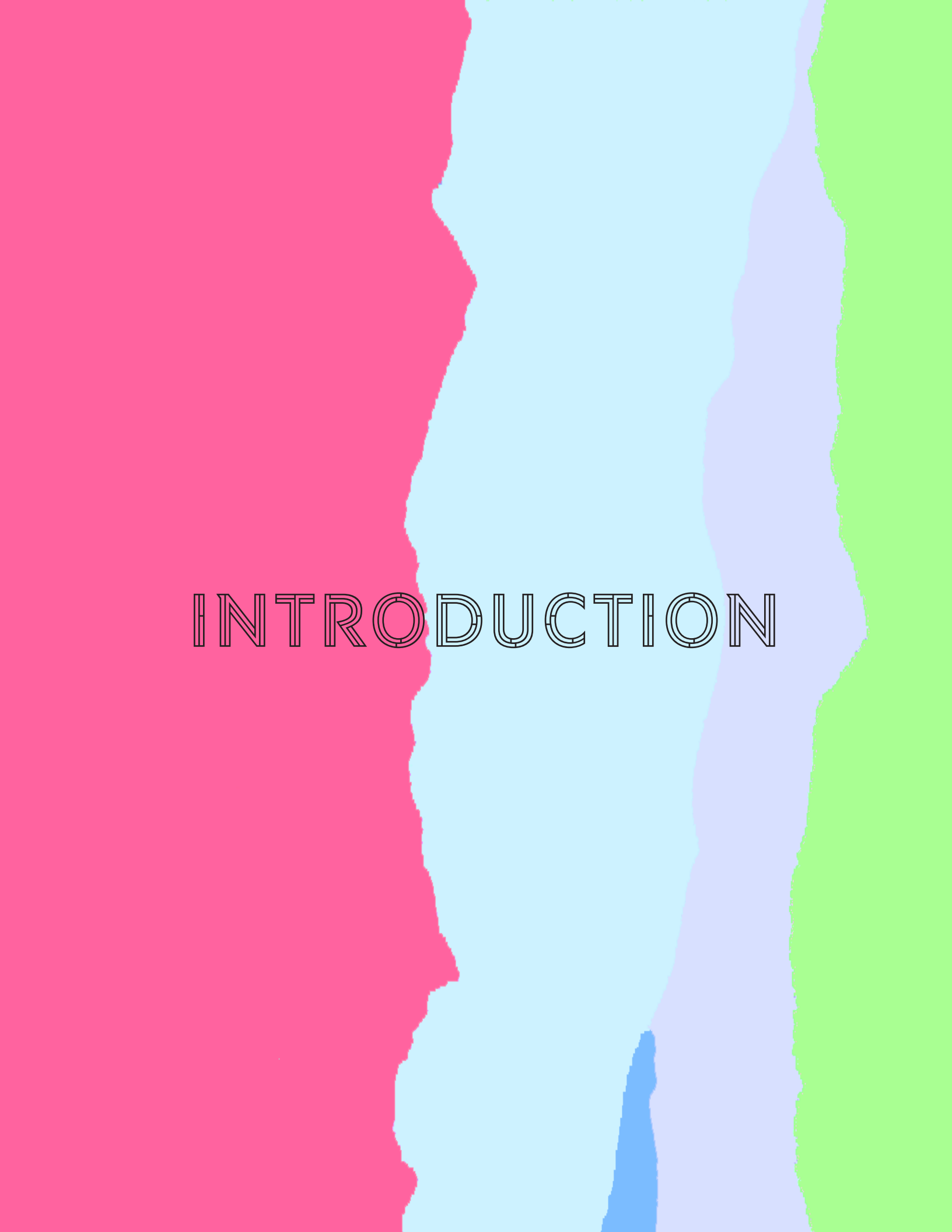
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About the Institute for Digital Cooperative Economy (ICDE)

The Institute conducts cross-disciplinary research about the emerging cooperative digital economy, which is relatively uncharted territory in anthropology, political science, sociology, history, law, and economics. This rapidly expanding field is also inextricably linked to labor and cooperative studies. This work is concerned with finance, entrepreneurship, and organizational studies in business schools. Governance and corporate structure are critical subjects in law schools. The Institute's mission, in recognition of existing research gaps, is to provide applied and theoretical knowledge, education, and policy analysis.

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INTRODUCTION

Capitalists in their ongoing pursuit of accumulation are promoting business models that gut the hard fought rights and benefits that workers had won in the New Deal era in the United States. These business models, more recently referred to as the “gig economy”, have been enabled by a historical bifurcation of workers into dual legal categories of “employees” and “independent contractors” in the United States. Taxi workers in the late 1960s and through the 1970s were some of the first who struggled against the transformation of their industry¹ from regulated and unionized employment to deregulated independent contracting work. This meant the loss of collective bargaining rights for taxi workers and a sharp rise in precarious working conditions. Owners or capitalists were able to shift business risk onto workers, cut expenses on benefits, and increase profits in-turn.

In a spirited response, taxi workers self-organized and sustained union-like alt labor groups, for example the New York Taxi Workers Alliance² in New York and United Taxicab Workers³ in San Francisco, that fought for better working conditions for taxi workers through municipal and city regulations. United Taxi Workers San Diego (UTWSD) is one such taxi worker advocacy organization. It is an immigrant-led worker advocacy organization, uniting taxi drivers across races and ethnic groups to achieve better working conditions. They formed after a historic strike for taxi workers in 2009, taking a stand against exploitation by cab company owners. Since then, they have notably eliminated the private market of permits by lifting the regulatory cap on their circulation and opened up the airport for business to all taxi drivers among other victories. They have overcome racism, exploitative regulations, and institutional exclusion through policy advocacy and direct action in the process.⁴

However, their victories have been undermined by the rapid rise of Transportation Network Companies (TNCs) like Uber and Lyft over the past decade and a half. TNCs have captured the imagination and habits of people globally, delivering on-demand cheap taxi rides through algorithmically-enabled apps. Decimating the traditional taxi industry in-turn. But scholars studying TNCs have uncovered that in addition to apps, immense amounts of venture capital funding, exploitation of racialized and migrant populations that cannot access standard wage based employment⁵, and lobbying to carve themselves out of taxi regulations⁶ fuel the success of these business models. Srinicek captures this economic, social, and political configuration through his term ‘platform capitalism’. Under this configuration that TNCs like Uber and Lyft have lobbied to shape, their algorithmically-enabled apps are able to exploit workers through wage manipulation and punitive surveillance,⁷ and simultaneously exploit customers by manipulating prices in the pursuit of profits.⁸

Taxi workers that are organized with UTWSD and elsewhere demand an alternative.

The Platform Cooperativism movement is a guide to optimistic experiments in cooperativizing the gig economy, putting technology platforms in the hands of workers, and building more democratically governed services for us all. Studying platform coops, our team of designers from UC San Diego and taxi organizers at United Taxi Workers San Diego (UTWSD), find lessons from tech-enabled cooperative projects around the world. These lessons buoy our work in San Diego of building “the public option”. In this report I give a brief account of the work we have undertaken together over the past few years to have finally launched a cooperatively run taxi app platform in December 2023. First I begin by briefly covering some background research on scholarship and cooperatives that guide our work. Then I cover the history of taxi worker organizing in the United States with a specific focus on San Diego. I also give an account of UTWSD’s past struggles of building their digital dispatch. I lay out the vision we laid out together with taxi drivers and our struggles of building that vision. In the conclusion, I briefly analyze the work that lies ahead of us to make ourselves sustainable.

Background Research & Approach

Worker and community-owned enterprises like worker cooperatives are on the rise again.⁹ They are a promising part of the broader labor movement’s ongoing fight for emancipatory futures for all workers. Legislators across the US are promoting coops, spurred by activists, unionists, and entrepreneurs from the bottom. Recently, cooperatives have notably attempted to tackle worker exploitation,¹⁰ lack of community-based economic development, racial injustice,¹¹ and the marginalization of immigrants.¹²

Within this growing movement of cooperatives is the platform cooperativism movement in which workers aim to take control of their own labor conditions on digital platforms through self-managed and cooperative ownership of alternative digital platforms. The concept of “platform cooperativism” was developed by Trebor Scholz across multiple books, papers, and through community organizing.¹³ It has grown into a movement which has inspired workers, organizers, and institutions globally and has been supported by the Platform Cooperative Consortium (PCC) in New York. A “platform cooperative” typically refers to an entity conducting their operations primarily through digital means (e.g., apps, websites, or protocols) and relying on democratic decision-making and ownership over those means. This democratic shift in the platform model comes in tow with rethinking many of its dimensions such as economic, governance, social responsibility, impact, data, and technologies.

Growing communities of practice across the world have taken up this task of rethinking dimensions of the platform model within and without the banner of “platform cooperativism”. The PCC directory alone catalogs over 500 cooperatively owned digital platforms spanning across various sectors of work and countries.¹⁴ I highlight three examples to illustrate the breadth, depth, plurality and success of these projects.

CoopCycle started as a non-profit association in 2017 by activists in France and a single software developer. Today, CoopCycle¹⁵ is a federation of bike delivery co-ops providing the software infrastructure for over 70 bike delivery cooperatives across the world. Public funding, procurement, and policy have played a significant role in CoopCycle’s success. In 2018, CoopCycle received a monetary prize from the city of Paris that supported its development.¹⁶ Cooperatives organized with CoopCycle have received funding from multiple state entities¹⁷ in order to build and maintain themselves. They have also scaled across geography, successfully launching a cooperative in Argentina and are in the early phases of launching one in Brazil.¹⁸

The Drivers Cooperative¹⁹ is a driver owned and app-based platform cooperative that has been able to stabilize itself in the New York rideshare market through philanthropy, loans, crowdfunding, and municipal contracts. They started with a small base of drivers and an off-the-shelf app but through focused business development they are operating in the New York rideshare market with thousands of drivers.²⁰ Since then they have also successfully built a coalition of drivers in Denver, Colorado who are gearing up to launch their own service on the Drivers Cooperative platform.²¹ They are also involved in pushing for regulation to push for a transition of on-demand transportation to electric vehicles.

Senoritas Courier²²: In Brazil, some groups of workers have purposefully elected to opt out of building a platform model. Senoritas Courier is a collective of cis women and trans people engaged in bicycle delivery work across Sao Paulo. Like cooperatives associated with CoopCycle, Senoritas are aiming to be an alternative to digital labor platforms. However, as Rafael Grohmann’s work documents, they value remaining small scale, focusing on an ethic of care, autonomy, and repair. They use simple technologies like web forms and rely on human infrastructure for routing, pricing, and distributing work. In their work, they also recognize the importance of enabling environments setting up grassroots control of technology. Thus, they are involved in pushing the Brazilian state to pass a national policy to support platform cooperativism.

A common thread emerging from these recent examples is the importance of policy makers and funders supporting and incentivizing worker-owned cooperatives. Erik Olin Wright argued that sustainable economic democracy required not only democratic production, but also state policies

to advantage those more democratic forms.²³ Jason Spicer also shows in his work on cooperatives²⁴ that state-mediated institutional arrangements play a significant role in the prevalence of cooperatives. He concludes that governments need to transform their policies to make economic democracy viable.

Platform Cooperativism: Potentialities for Transformation

Cooperative organizing has been going on throughout history in response to the harms that workers face under capitalism. Most modern cooperatives find their roots in cooperatives developing in England during the Industrial Revolution. The Rochdale pioneers developed a set of principles based on the values of self-help, self-responsibility, democracy, equality, equity, and solidarity that have remained the guiding principles to this day for cooperatives.²⁵ As with any historical idea for change and transformation, cooperatives have been treated with great ambivalence. These ambivalences have certainly carried over to platform cooperativism as well. Rafael Grohmann illuminates these ambivalences well in his work.²⁶ On the one hand, platform cooperativism can be the alternative to dominant platform capitalism. However on the other hand economic, political, and technological barriers limit its transformative potential. These potentialities and critiques inform this report and our work helping organize the United Taxi Cooperative in San Diego.

A century ago, Rosa Luxemburg offered a warning about cooperatives. The cooperative enterprise competing on the open market, Luxemburg observed, has to make use of “all methods that enable an enterprise to stand up against its competitors in the market.”²⁷ These methods include the same ones capitalist bosses employ, whether that be lengthening the working day, cutting wages, or outsourcing. Workers are in charge, but their actions are necessarily shaped by the law, their competitors, and consumers. If worker-owned cooperatives don’t secure an exclusive market or a dominant position in one, they are at risk of either assimilating into capitalist logic or dissolution, thus not achieving their emancipatory goals. Platform cooperativism scholars, drawing on marxist critique, discuss this as the “degeneration thesis”.²⁸ The “degeneration thesis” is accurate in that cooperatives are probably not tools for creating societal transformation in the short term. However, they can shape expectations within capitalism about working conditions, thereby laying the groundwork for more socialist structures. “[T]his critical perspective helps to understand why efforts to scale the co-operative economy and to ‘outcompete capitalism’ are unlikely to succeed. It also suggests that the more radical a co-op’s resistance against market logics and competition, the more challenging it will be for the co-op to generate income, especially outside of niche markets. For instance,

if a co-op has strict ethical rules about what clients to work for, about not accepting investment capital, about not using any advertising as a source of income or wanting to use open commons licenses, economic success will be harder to achieve.”²⁹ Even the Mondragon Corporation, held up as the shining example of cooperative economic institutions, has non-member workers, is tied up in exploitative global supply chains, and has members struggling with low wages.³⁰ We observe similar dynamics play out during cooperative organizing in San Diego. Cooperative workers need to make strategic trade-offs to keep cooperative values alive and thrive while participating in capitalist markets.

While cooperatives have remained on the margins, unions have been the primary means through which to organize workers under capitalism. Through processes of collective bargaining, they shape the distribution of income within firms and in the labor market more broadly. As cooperative scholars compare, unions represent a limited stakeholder logic of running an enterprise as opposed to the full democratic logic of cooperatives.³¹ In other words while unions represent workers interests in the running of a business they are not able to challenge for ultimate ownership of the business. Labor is able to put limits on capital but ultimately remains subordinate to it. Cooperatives hold the promise of overcoming that subordination by making all workers owners and promising “one member, one vote” regardless of investment. However, operating in capitalist markets, cooperatives risk becoming subordinate to its logics. As Sandoval frames it “[p]latform cooperativism’s relationship with entrepreneurialism is ambivalent. On the one hand, the co-operative model upholds the idea of economic democracy as an alternative to anarchic market logics. On the other hand, the aim to create social alternatives through the vehicle of business enterprise feeds into an entrepreneurial model of social change.”³² Worker organizers on the ground have recognized the limitations of unions and cooperatives for a long time and in many cases have worked to combine the two models. USW-Mondragon International partnership, the Cincinnati Union Co-op Initiative (now called Co-op Cincy) was formed with the idea that unions could help foster the development of worker co-ops and make them more accountable to their members. In New York, 1199SEIU, representing frontline healthcare workers, organized workers at Cooperative Home Care Associates and are now exploring the formation of unionized worker cooperatives in Washington and California.³⁴ Why would a democratic workplace require another form of representation? Unions help provide managerial accountability especially when cooperatives are at risk of being consumed by entrepreneurial logic. United Taxi Workers San Diego is attempting to build a similar model for taxi workers and equipping them with an app platform. Unionized platform cooperativism could offer a potential path forward for us.

Non-Reformist Reform

In our approach to our work in San Diego we have adopted strategies that closely resemble the work of Andre Gorz. He was a French philosopher and journalist who developed the idea of non-reformist reform in the 1960s. He argues that reforms should not just aim to make capitalism more tolerable but rather push towards transcending capitalism altogether.³⁵ A reformist reform reinforces the current system whereas a non-reformist reform lays out the groundwork for further social transformation. Through his theories he promoted approaches like empowering unions, democratic workplaces, social ownership, and expanding the public sector. A common theme running across his proposals was the importance of workers exercising direct democracy.

Pushing for greater worker control, like the platform cooperativism movement advocates, has the potential to be non-reformist. However, questions like what workers do, how do they exercise control, how are they organized, and what are their long term goals ultimately determine the transformative potential. In this approach, transformation would come about “through long-term and conscious action, which starts with the gradual application of a coherent program of reforms.”³⁶ Fights for these reforms would serve as “trials of strength.” Small wins would allow movements to build power and put them on more favorable footing for the future. “In this way,” Gorz argued, “the struggle will advance. . . [as] each battle reinforces the positions of strength, the weapons, and also the reasons that workers have for repelling the attacks of the conservative forces.”³⁷

Methods: Long Term Community Engaged Action Research

For over 4 years we have stayed with the trouble,³⁸ and our team’s efforts of building our vision reveal the unique challenges of black and brown communities pursuing technology and business innovation in the US through cooperative means. This project draws on long term action research methodologies³⁹ in which researchers support individual and organizational development as a way of documenting and analyzing the transformational process, the ecological resources drawn on, and contradictions that emerge in the transformation. United Taxi Workers San Diego (UTWSD) relies on relationships, policies, small grants, and advocacy practices that form the ecology of resources available to community organizations that they strategically employ throughout the project. To report on our progress we employ ethnography as a way of producing practical, actionable, and strategic insights for community-driven technological innovation.

The report primarily draws on field notes from team meetings, co-design workshops,

semi-structured interviews, and outreach at taxi stands where we organize with driver workers, and work with experts and political offices. In addition, we draw data from informal oral histories, analysis of policy documents, and media artifacts. Throughout our collaboration, UTWSD and the research group co-developed the analysis presented in this report that was recorded by the research group as field notes on conversation. The project follows calls for more inclusive and engaged design research.⁴⁰ In what follows, we champion the work the team has done together. We draw on community-based design research methods that commit to pursuing questions communities find valuable with active participation from those communities. These methods are an alternative to extractive research collaborations⁴¹ wherein researchers extract community knowledge to further their own purpose but offer nothing in return.

Harrington, Erete, and Piper argue that seen through a longer-term lens, histories of research-community encounters have left universities much better off than the communities they engage with. They instead argue for sustained, long term relationships beyond the project.⁴² We take up this commitment. We also take up cautions to center community creativity rather than narrowly pursuing technology advances. Here, UTWSD explicitly sought a technical solution before the research group became involved. However, both United Taxi Workers of San Diego and the research group were well aware of the ongoing challenges of technology repair and maintenance. Hence, the research group's task has not been to design, per se, but rather to contribute their expertise, labor, and institutional legitimacy as technology academics to help UTWSD gain resources, negotiate the design of systems they adopt, and advance our collective vision. As we negotiate real world software, we oscillate between designing, configuring, negotiating, and working towards institutional change without full design agency or control over the systems available to us. As the next few sections will illustrate, our control is limited by many barriers including resource constraints, and discriminatory policies.

Driver Resiliency in the Taxi Industry

The taxi industry in the US has been characterized by continued negotiations and clashes between regulators (e.g. cities), drivers, and other stakeholders such as taxi companies resulting in several regulatory transitions over the past century. The first wave of regulations established a permit system, also known as medallions, that owners of cab companies were required to obtain before they could operate cabs on the street. Legislation like the Haas Act of 1937 in New York⁴³ or the Taxi Ordinance of 1929 in San Francisco codified the contours of the permit system. It allowed municipalities to regulate the amount of taxis on the street in order to balance competition and demand.

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Municipalities also established locally attentive driver protections pertaining to income, insurance and equipment in the taxi industry.

Municipal regulations became an intense arena for negotiations post the 1970s when the taxi industry transitioned to a lease based driver model. Before 1970s drivers were unionized employees who negotiated a contract with cab companies that included a regular wage, per-ride commissions and other benefits like retirement and social security. Lease drivers instead had to take on all the risk of taxi driving without any benefits. Under the leasing model a driver had to pay a cab owner upfront to work. Cab owners' source of revenue shifted from public ridership to drivers themselves. Their profit was always guaranteed as they could just increase the lease. However, drivers' earnings depended on daily variable ridership. Scholars illuminate multiple accounts of taxi drivers unable to cover lease expenses in a day and having to work in excess of 70 hours per week to make ends meet.⁴⁵

During this phase of workplace transition the taxi industry in California also experimented with a cooperative business model. As Yellow Cab was going bankrupt in San Francisco, a few hundred drivers came together and put together a business plan for buying and co-owning the entity. The plan was simple, each driver would own their medallion and drive their own car but share other business expenses like customer service and maintenance. Taxi workers pooled their resources and were successful in purchasing taxi permits. However, when operations of the "New Yellow Cab Cooperative" started in San Francisco they exclusively used the exploitative taxi leasing model to conduct their operations.⁴⁶ While taxi workers were in charge they used the same tools as exploitative cab company owners that came before them. Thus, cooperative ownership in and of itself was insufficient to secure fair working conditions for all drivers.

Under these hostile conditions and losing the right to unionize due to being classified as independent contractors, drivers were compelled to reform their advocacy. They organized themselves in volunteer based driver coalitions that were led by labor leaders and driver advocates. These coalitions organize public demonstrations, coordinate strikes, form alliances with municipal politicians and lobby for regulatory reform in the drivers' interest. This short historical background of the taxi industry sets up a more detailed look into San Diego's taxi system.

San Diego

San Diego's taxi industry for the most part followed the trends of the US taxi industry, but

with some of its own peculiarities. San Diego's taxi drivers endured a turbulent period towards the end of the 20th Century.⁴⁷ Cab companies and owners forced a leasing model onto drivers. Simultaneously, the city decided to completely deregulate the taxi industry. The San Diego city council decided to lift the cap on the number of permits in 1979 and removed fare regulations altogether in the 1980s. A city report on deregulation declared that the council's goals "to facilitate entry into the local taxi market; to improve administrative ease; to improve areawide taxi service coverage and promote service and pricing innovations by removing regulatory barriers and increasing competition; to relieve the council of the burden of the burden taxi regulation; and to reduce the city's dependence on a single large operation in a concentrated industry structure" had been achieved.⁴⁸ However, a systematic multi-city empirical investigation at a later date uncovered a different reality.⁴⁹ The study found that deregulation indeed led to a jump in taxis on the road, and a decentralization of the industry. But the benefits stopped there. Taxi stands were overflowing, service levels had deteriorated and drivers had unpredictable earnings leading to an increase in taxi prices and customer complaints. In this way, San Diego experienced early on what would become the norm almost 3 decades later with the introduction of minimally regulated Transportation Network Companies like Uber and Lyft.

The adverse effects of deregulation in San Diego meant that regulations returned shortly after in 1984.⁵⁰ SDMTS Ordinance 11, passed in 1988, transferred the responsibility of administering regulations of the taxi industry from city council over to the Metropolitan Transit Board, the local transit authority. The city placed a complete moratorium from 1984-2001 on new permits and subsequently released only 135 permits between 2001-2014. An extremely limited supply of permits and a provision of transferability under regulations meant the city facilitated a black market of permits where costs escalated rapidly to nearly 50 times the permit fee. Regulations set by the city and administered via San Diego Metropolitan Transit System and the Sheriff's department also stipulated that lease drivers, comprising the majority of the industry, could not own their own cabs, and were licensed to work for a single permit holder who also had the right to choose their dispatch company.⁵¹ This relegated lease drivers to a perpetuity of leasing from permit owners.

United Taxi Workers San Diego: Mission, Power, and Struggle

United Taxi Workers San Diego is built on a history of labor organizing, formed a decade and half ago to break the medallion system in San Diego so driver-workers could drive

and earn for themselves. The initial sparks of taxi worker organizing started as a result of a historic strike against high cab lease prices being charged by Yellow Cab in December of 2009. San Diego Yellow Cab management refused to negotiate with drivers. They believed that the strike would be over in a couple of days. The drivers kept the strike going for 12 days through mutual aid efforts covering each other's financial expenses. Despite failing to negotiate the prices of the lease down it marked a new phase for drivers' collective struggle in San Diego. Mikaiil Hussein, who was chosen to be the lead negotiator during the strike, started to split his time between taxi driving and advocacy work. He was branded a "troublemaker" by permit owners who then pushed him out of the industry which made him shift his focus full time towards advocacy work.

By 2010, UTWSD had started building alliances with the labor movement in San Diego. One of their first and long standing allies was the Employee Rights Center.⁵² Their paradigm of labor organizing was connecting with workers who could not unionize. From there onwards United Taxi Workers of San Diego established an advisory board of community members, lawyers and labor organizers, developed a steady volunteer program and built durable collaborations with political leaders aligned with labor issues. This enabled a capacity to effect regulatory change. The permit system, sometimes called medallions, is one source of exploitation. Prior to UTWSD's activism, permits in our city cost more than \$100,000. Drivers who could not afford permits leased their cars from permit owners. These "lease drivers" suffered from high fees paid to permit owners, low net incomes, long hours of work to make ends meet, and decades of work without labor protections. This exploitation reinforced racial and class lines as drivers in the industry are primarily immigrants (more than 90% as of 2013) and people of color (65% East African and 15% Middle Eastern as of 2013).⁵³ Esbenshade et al locate the reason for concentration of these populations in the taxi industry as marginalization in the labor market due to issues like language (or accent) barriers, lack of start-up capital, non-recognition of pre-immigration credentials or experience, anti-immigrant sentiment, and racism. However, as refugees they still have the legal status to obtain a taxi license. UTWSD's goal was to lift the city's regulatory cap so anyone could buy permits from the city, eliminating the private market for permits. They won in 2014.

As a stepping stone to this victory, they also fought for and won representation on the city's Taxicab Advisory Committee. This committee provides feedback to San Diego Metropolitan Transit System, the taxi's regulator, on policies related to taxis. Seats were elected, but permit owners often punished drivers who ran for seats. The union successfully pushed to allocate three seats for lease drivers on the Committee; today, the Committee also has a seat specifically for United Taxi Workers of San Diego.

Building a Digital Dispatch

Once the cap on permits was officially lifted, drivers, with UTWSD's support, set about trying to obtain permits and acquiring funds for new individually owned cars. However, regulations still required drivers to be listed with a dispatch in order to operate a taxi. Establishing and operating a dispatch is a significant investment that only a few cab companies could afford. These companies and their owners had put in considerable amounts of capital to accumulate permits in a black market that no longer existed. Taxi worker advocacy had abolished the black market and put control back in the hands of drivers. In a hostile response, cab company owners set about trying to make the drivers' regulatory victory a practically hollow one. They mutually agreed to block any former lease taxi driver who had become a new permit owner from their dispatch. Leaving the driver unable to comply with regulations, and thus earn a living. Under these conditions, United Taxi Workers of San Diego was compelled to intervene.

UTWSD began the effort by assembling 40-50 drivers and presented the idea of potentially establishing a driver-owned cooperative dispatch. This was well received by drivers. They had been advocating for increased control over their working conditions and a cooperative would provide that but the optimism was short-lived. Setting up a cooperative is financially intensive and would have required capital investment from drivers. However, drivers were already under massive financial pressure from investing in purchasing their taxis and permits. This situation backed United Taxi Workers of San Diego into a challenging conundrum of building a dispatch platform with drivers as customers while fulfilling their primary purpose of advocating for and supporting them. In other words, United Taxi Workers of San Diego saw extracting revenue from drivers in conflict with advocating for them. But after significant deliberation with drivers and no other solution on the horizon UTWSD's board approved the dispatch project.

In early 2015, with the board's approval, the union began the regulatory, technical and organizational work of setting up a dispatch platform. In addition to a phone based radio dispatch, United Taxi Workers of San Diego figured operating digitally as essential to compete with the rising threat of TNCs at the time. A digital dispatch was a novel endeavor for the city's taxi industry at the time. Some primitive versions of a digital dispatch had existed in San Diego before such as GPS tracking of cabs but UTWSD's goal was to implement an end-to-end platform for taxis to remain competitive. According to their planning documents, in phase one of development the platform would allow the dispatch operators to see on-duty drivers on a map of the city and send ride requests directly to tablets installed in their taxicabs. In phase two, a simple passenger app would

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follow that would bypass the dispatch operator to directly send ride requests to taxis.

For completing phase one, United Taxi Workers of San Diego assembled together a bricolage of resources to prop up a functioning digital dispatch platform. They 1) gathered the technical expertise through a combination of volunteer work and small software vendors 2) procured the requisite hardware (e.g., tablets, computers, SIM cards etc) and software (e.g. metering app, backend taxi management portal etc.) 3) installed, integrated and configured the hardware and software 4) trained drivers and back office staff on the new system. They performed tests, and began working on eliminating bugs. With the promise of UTWSD's affordable dispatch on the horizon, drivers applied for their own permits. Just as the technological and organizational work concluded the dispatch faced bureaucratic hurdles to launch. Both the dispatch platform itself and the drivers planning to operate on it needed regulatory approval from MTS. Oral history accounts describe established cab companies and their owners, once again moving swiftly to try and secure their interests. This time around they used their influence at MTS to cause tactical delays in an attempt to stall the launch of UTWSD's dispatch platform. Nevertheless United Taxi Workers of San Diego endured and supported by investment from a large national union and their own advocacy, Office and Professional Employees International Union, they were able to get their dispatch approved.

Once the platform launched at the end of 2015 it required a minimum number of active paying drivers to cover the running costs. But many drivers that had promised to sign on were still waiting for their permits. United Taxi Workers of San Diego burned through their advocacy funds to sustain the platform. On top of that, they lost key volunteer tech workers who were responsible for bug fixes. They continued to pay dispatch operator salaries, office rent, and liability insurance while they waited for drivers to join. However, towards the end of 2016, faced with a shrinking taxi market due to TNCs, rising maintenance costs, and a lack of technical expertise, they resigned to stop investing in the dispatch. The dispatch entity associated with UTWSD survived in the form of a simple call based dispatch but the hardware and software decayed and were dismantled.

Despite this setback, United Taxi Workers of San Diego built on their prior victories to mediate better relations with City and Harbor police, partnered with UC San Diego School of Medicine to train drivers on occupational health and safety, and participated in a six-month process to reform airport taxi regulations. The union established a legion of allies among lawyers, labor organizers, and volunteers to support these efforts. Through these efforts, United Taxi Workers of San Diego also built durable relationships with political leaders aligned with labor issues. They draw on these relationships to build towards their

vision in the present. UTWSD's vision is to unify taxicab workers, to improve working conditions, and to improve professional transportation services in the city. As part of this, United Taxi Workers of San Diego has consistently strived to create platforms for dignified driving work. Though their first attempt at an app and a driver cooperative failed, it set them on the path to the work we undertake together.

The Vision: "The Public Option"

In November 2019, UTWSD invited a group of UCSD researchers including myself to collaboratively design and conduct a workshop with taxi drivers. United Taxi Workers of San Diego organizers and the research group entered the workshop with a broad vision of a public-sector supported digital dispatch with regulated wages and prices – to ensure affordable point-to-point transportation. The goal of the workshop was to understand the experiences and challenges of taxi drivers and to understand how they envisioned the future of transportation in the city in which they lived. The workshop convened 25 drivers associated with the union and presented examples of transportation experiments, such as app-based shuttle buses, rideshare co-ops, and taxi co-ops. Throughout the workshop, taxi drivers asked pointed questions, critiqued information they disliked, and drew on their taxi driving expertise to provide rich feedback on ideas about a tech-mediated future of the taxi industry. Some salient outcomes of the workshop were as follows.

- Drivers, some of whom had driven for transportation network companies (TNCs) such as Uber and Lyft, elaborated on why they preferred to drive taxis. First, TNC app platforms inundated drivers with ride requests and threatened to deplatform them should they reject too many rides. Second, TNCs also charged a significant percentage of driver earnings as platform fees. Third, the intensity and low pay of transportation network companies work means drivers are continuously on the road, damaging their own health and their car. Finally, drivers preferred to build a relationship with their customers such that known customers could reach out to them whenever they needed a ride.
- Drivers articulated a nuanced vision for the design of a digital dispatch platform. They did not want the platform to replicate features found in gig-work platforms run by TNCs such as incentive schemes (e.g., surge pricing) or a driver rating system as a mechanism for ensuring quality of service. Instead, taxi drivers wanted to move towards a digital dispatch platform while retaining core elements of the current taxi system: fixed and municipally regulated pricing and a dedicated troubleshooting and complaint helpline that allowed for problem solving rather than penalizing drivers.

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- Drivers highlighted the imbalance between TNCs and the taxi industry. Transportation network companies, in their words, manipulated the industry and gained an advantage through marketing and lobbying practices. In our city, they had gained preferential treatment over taxis at the airport. Drivers also believed that the San Diego Metropolitan Transit System (SDMTS) showed undue preference for TNCs, despite the fact that (or perhaps because) TNCs were outside of San Diego Metropolitan Transit System's regulatory purview. Taxi drivers argued that because taxis pay SDMTS to achieve public safety, San Diego Metropolitan Transit System ought to prioritize integrating taxis as service providers for first- and last-mile connectivity solutions.
- Drivers expressed interest in establishing a cooperatively-managed taxi dispatch. Drivers saw the cooperative as a way to collectively provide a high quality of service to customers while also maintaining control over their work conditions (e.g. their driving hours).

Over the course of this workshop and other discussions, UTWSD's vision for taxis continued to evolve. The project coalesced around the need for a democratically controlled, publicly regulated, and just workplace for taxi drivers supported by public agencies with broad reach to riders.

In *Platform Socialism*, James Muldoon imagines city-scale platforms, co-governed by cities and workers through democratic committees, wherein cities can play a major role in sustaining these platforms by prioritizing public service provision through them. UTWSD and aligned drivers want to bring this future closer. Our work together tries to form a coalition between elites and workers – what Erik Olin Wright called a symbiotic strategy⁵⁵ for creating alternatives to capitalism and durable social empowerment in his book *Envisioning Real Utopias*. In answering drivers' calls and recognizing the need for regulated on-demand transportation to patch transit infrastructure gaps in the San Diego region⁵⁶, we laid out a vision to advance taxis as a preferred partner for public transit⁵⁷ that could:

1. Provide flexible first-last mile⁵⁸ solutions to increase public transit ridership.
2. Improve access for riders with disabilities.
3. Promote the economic well-being of taxi workers.
4. Rapidly transition to an electric fleet through government regulation and support.



BUILDING A
COOPERATIVE TAXI
APP PLATFORM

In shaping this vision, our team drew on the history of healthcare reform unfolding in California in the early 2000s. Policymakers supported the creation of a public option⁵⁹ in order to offer families and individuals a viable alternative to the for-profit health insurance providers. Inspired by these debates about the need for public competitors to private providers of essential services, we called our vision “the public option” for on-demand transportation amongst ourselves. Thus, the goal of “the public option” is not to outcompete rideshare companies like Uber and Lyft directly. Rather it aims to offer a publicly regulated and unionized alternative to rideshare companies for both drivers and passengers in San Diego. We are very much following here in the strategies laid out by platform cooperatives elsewhere trying to answer the specific niche transportation needs of San Diego. The Drivers’ Cooperative, mentioned before, got started with a small municipal contract with New York City.⁶⁰ The Kerala state government funded the development of a state owned taxi app.⁶¹

Building a Cooperative Taxi App Platform: United Taxi Cooperative & RideUnited

This project offers a case study of black, immigrant workers developing a technology platform that is non-extractive from those providing the primary work—the drivers. Earlier analysis of this case study has already demonstrated how African immigrant workers are unable to access resources in order to achieve economic, political, and social empowerment for themselves and their communities.⁶² Whereas elite, white, and university educated entrepreneurs are able to access billions of dollars in venture capital to create and scale exploitative technology-enabled business models. Technology innovation policy typically assumes either low-capital intensity, such as freelancing or the informal economy, or high-tech capital intensive enterprises. Scholarship on the former emphasizes small business formation, access to loans, and resources from communities. The latter emphasizes the role of highly educated immigrants,⁶³ social networks, venture capital for startups, and basic scientific research funding.⁶⁴

As we worked with planners, policy makers, and funders to build “the public option” we fell through institutional cracks.⁶⁵ They expected that someone else, or maybe workers themselves, funded the app and the hardware required to operate it. Most philanthropies, on the other side, were used to funding capital projects in the form of land and building, not in the form of software or hardware. Public procurements pitted UTWSD against companies with private capital for tech, including Uber and Lyft. Despite these barriers our team continues to make progress towards our vision through labor, community, and political organizing. This section recounts barriers we face in our work of building United Taxi Cooperative - a democratic driver led organization and RideUnited

- a union backed taxi hailing software platform. I illustrate those barriers by drawing on crucial vignettes that occurred while undertaking the pursuit of “the public option”.

Barriers to Imagining a Cooperative Future

In this section, we show how drivers resist imagining cooperative futures clearly impeded by present, practical conditions. The ecology of policies and support available for business innovation is optimized to favor typical capitalistic businesses. When community members imagine alternative cooperative futures, barriers limit their “blue sky” or utopian plans.⁶⁶

In the early stages of planning the United Taxi Cooperative, discussions about taxi insurance regularly permeated our meeting agendas. As publicly-regulated transportation providers, individual taxi drivers are legally required to purchase driver insurance. The terms of this insurance policy must be compliant with requirements that San Diego Metropolitan Transit System (SDMTS)'s for-hire vehicle administration sets such as qualified insurance companies, and a \$350,000 public liability coverage.⁶⁷ Initially, some on the research group felt like the ongoing discussions about insurance were a distraction and sought to help UTWSD organizers reroute these discussions to other fora where they would not interfere with developing the driver cooperative. After many discussions with the drivers and with members of United Taxi Workers of San Diego we began to understand insurance troubles in a different light.

Discussions about how, and who ought to address the issue of insurance were not a disruption to the planning of the cooperative but instead a deliberation on the barriers to drivers' full participation in the cooperative itself. Taxi drivers knew insurance, a fixed monthly cost, to be a recurring problem. During the height of the pandemic, UTWSD helped drivers leverage different varied government funds to provide short-term financial relief as they struggled to stay afloat. As a result, many drivers parked their cars, unsure that they would be able to get enough business to pay for insurance. The monthly insurance premium had held steady at around \$450, despite a steep drop in the amount of public liability coverage the insurance provided. As evidenced by the regularity with which it was discussed during the co-op development meetings, insurance costs presented a barrier to drivers' will to speculate and envision.

During our co-op meetings, drivers argued among themselves about what needed to be done to find a more viable insurance policy. The problem of insurance demanded a long-term solution. A less expensive insurance provider required regulatory approval. Drivers

deliberated whether the regulatory intervention ought to take place at the municipal or state level, and expressed that they felt a lack of capacity and influence at the state level to attract a new insurance company to the city. UTWSD worked with the for-hire vehicle administration manager to identify an existing commercial auto insurance company who agreed to provide more affordable insurance. After the insurance issues were resolved, individual drivers could think more clearly about the future of their cooperative business. This moment shows resource barriers limit people's will to imagine and move toward alternative futures. The "capacity to aspire"⁶⁸, this suggests, requires real, material interventions to make aspiration seem possible and speculation worthwhile.

Barriers to Acquiring a Cooperative Taxi Dispatch Platform

This section documents the challenges UTWSD faces in their efforts to develop and deploy a functioning digital dispatch platform for taxi drivers that also reflects the values of the organization. Financial constraints and state austerity pushed the union to partner with third-party technology companies, unable to pay for its own or public software. We describe how this partnership made the organization beholden to that company's aspirational goals. By partnering with a smaller, less established company, United Taxi Workers of San Diego had hoped to retain some degree of control over the technical decision making in their platform. When the gulf between the union's needs and the partner company's goals became too wide—and the path towards a timely and functional dispatch platform became too tenuous—United Taxi Workers of San Diego felt pressured out of need to trial an "off-the-shelf" solution by partnering with a more established company at the cost of giving up the promise of greater control over technical decision-making. Here, we discuss the consequences of this decision for taxi-drivers' ability to realize their collective technological vision.

UTWSD knew from its past experience of attempting to build a digital dispatch that building, testing, and maintaining this kind of platform was expensive. They also knew that drivers did not yet have enough business to "bootstrap" startup capital to pay for the system's development and deployment. As discussed in the constrained resources section, grant-based funding had failed to provide sufficient resources for building a platform of this scale. Efforts to seek public funding through municipal and regional institutions had also been unsuccessful. United Taxi Workers of San Diego was no longer interested in relying on volunteer time from activist software engineers. They had previously suffered consequences from longtime volunteers dropping out, and they knew that the research group too was unlikely to be able to secure the resources to build and maintain a platform like the digital dispatch over the long term. UTWSD

agreed to a partnership with LogistiRide. The union encouraged by the company's regulation-compliant meter prototype, favorable terms for drivers and desire to come up with innovative solutions to boost the taxi business. Over time, however, our team's confidence began to wane. We started to realize that LogistiRide's goals as a company, though they overlapped with the goals of United Taxi Workers of San Diego, were substantially different in kind. First and foremost, the union wanted a simple, and functioning digital dispatch platform that is affordable for drivers and reliable and convenient for riders. As UTWSD began testing LogistiRide's software, we found it buggy and difficult to use. We provided heuristic analyses and wireframes for improvements. Our joint team urged LogistiRide to focus on critical bug fixes. LogistiRide lagged behind in fixing critical bugs, but frequently used meetings to "pitch" additional features and new marketing ideas. The company's tendency to slip into business rhetoric and pitch presentations jarred us because we had already signed a contract agreeing to work with them. They also especially sought feedback from the faculty members with tech industry design expertise on our team. Our team began to wonder whether LogistiRide was testing pitches on us to get feedback in advance of presenting to potential venture capital investors. United Taxi Workers of San Diego had wanted to influence how LogistiRide designed the technology they would use, but feedback on new demos and business lines was not what they had in mind. LogistiRide was focusing their limited resources toward developing promising but minimum-viable implementations (e.g. MVPs) of new technologies and features to attract potential funders. The union also presented an opportunity for LogistiRide to demonstrate to others that their platform could work, or was working (which they could do regardless of its actual functionality in practice).⁶⁹ We worried that they were using UTWSD as "a testing ground," as UTWSD's president put it, while failing to deliver the reliable but unsexy software drivers needed.

UTWSD was reluctant to abandon the relationship with LogistiRide because they feared that working with an established digital dispatch would limit their ability to advocate for changes that drivers wanted. UTWSD saw an opportunity to influence LogistiRide's design not only because it was still being built, but also because United Taxi Workers of San Diego was LogistiRide's only pathway to drivers and a market of riders. Eventually, however, the research group rallied to hold LogistiRide accountable to a schedule for critical bug fixes. As the company failed to invest resources into these tasks, the research group pushed the union to reconsider their partnership with LogistiRide and to instead develop a relationship with a "next best alternative" software provider with an established reputation and functional software that had been deployed in other cities. As we met with the union to look over a sample contract from this "next best alternative" company, we saw few opportunities for customization beyond a pre-articulated software package.

Since the platform had already been deployed, and since this city was not the exclusive or even a very large point of access to ridership markets, United Taxi Workers of San Diego lacked leverage to influence algorithmic decisions in it. Drivers wanted a voice in how rides are assigned, how far a driver would have to go to pick up a passenger, and whether drivers could be deprioritized in the ranking algorithm for declining rides that did not align with their preferred style of work. Our move towards a more promising technology partner made us susceptible to the inflexibilities of an off-the-shelf configuration of platform work despite a cooperative ready to influence the software. To summarize, resource constraints contributed to diminished agency over the technology development process in two ways. A lack of funding for the technical development of the project pushed United Taxi Workers of San Diego to partner with a technology company, first making the union beholden to the company's efforts to appear as a promising innovator over providing a fully-tested and functioning product. Constrained access to resources for technology development then ultimately forced UTWSD's hand to move toward considering adoption of an "off-the-shelf" platform with fewer opportunities for the drivers to exert agency over the design of the platform.

Barriers to Owning a Platform

This section documents how United Taxi Workers of San Diego and the team at University of California, San Diego, have made progress by partnering with a more promising and accountable software contractor. After establishing the United Taxi Cooperative our team's complete attention turned towards acquiring a taxi hailing platform in order to operate in San Diego. However, as the previous section illustrated our attempts at deploying one endured a testing start. After a few months of research we were approached by a small software contracting company that presented a more polished taxi dispatch platform. Finding no alternative we began another partnership with them. As our partnership develops we regularly discuss the specifics of a collective future. Our team's priority remains on putting drivers in an advantageous position to govern and eventually own the platform. Whereas, our software partner remains fixated on a profitable and scaleable future. Here we discuss the work we have undertaken together, drivers' role and stake in the software platform, and our software partner's rebuttals.

Our team was in the process of figuring out our next steps towards acquiring a more reliable and customizable software platform. During our search we also met with The Drivers Cooperative from New York to discuss possibilities of collaboration. While we were aligned in many of our values and commitments towards building a driver led on-demand transportation industry we differed in the regulations the software platform

had to fulfill. We were seeking a software platform compliant with California state and local taxi regulations whereas The Drivers Cooperative had built their platform for the rideshare industry. Owing to our aligned commitments a future collaboration remains a possibility but at that moment we had to look for software solutions elsewhere.

In January 2022, we were approached by a group, MediRide (anonymized for the purposes of publication), that claimed to possess the software and a business plan to afford taxi drivers good jobs. The business plan relied on bringing non-emergency medical transit rides to complement regular rides for taxi drivers with the help of an app. The mobile application would act as a taxi meter and coordinate rides across drivers. We wanted to proceed cautiously in re-enrolling drivers in another round of software development, UTWSD's third attempt. Our team evaluated the app platform itself and weary from our experience with LogistiRide also measured the app development team's responsiveness. The app platform was composed of three major components, an app for the driver, an app for passengers, and a web management console to manage the apps. All components worked smoothly together, however, lacked the specific customizations that the union and taxi industry required. A glaring omission we flagged from MediRide's platform was a taxi meter that would count the fare as the mileage and waiting time ticked up during a taxi ride. MediRide had instead assumed a rideshare industry model of calculating the fare upfront. The union and MediRide's software development team worked together to implement a GPS based taxi meter. Within 2 weeks a prototype was ready and deployed for testing with drivers. This moment was crucial in affirming our confidence in MediRide's capability and willingness to accommodate favorable design changes in the software. Thus, we decided to proceed further in our collaboration.

Setting up the collaboration was not a simple transaction. MediRide expected swift expansion. Whereas organizing drivers into a collective vision required the slow work of deepening democracy. Drivers had specific demands both from the software platform and the business terms that would preserve their autonomy. Drivers deliberated thoroughly on the pricing structures suggested by the business group. Having grown used to the limited rides still available in the taxi industry every dollar they earned mattered. MediRide remained adamant in charging a cut from each ride. This fundamental difference stalled negotiations. Drivers and the union demanded a runway of development before they were comfortable paying a cut to MediRide. United Taxi Workers of San Diego's proposed solution was to agree to pay a modest fixed monthly fee in exchange for MediRide tailoring the software platform to the drivers' preferences. Through hard bargaining tactics UTWSD was able to secure a memorandum of understanding that included not only a monthly fee but future commitments on

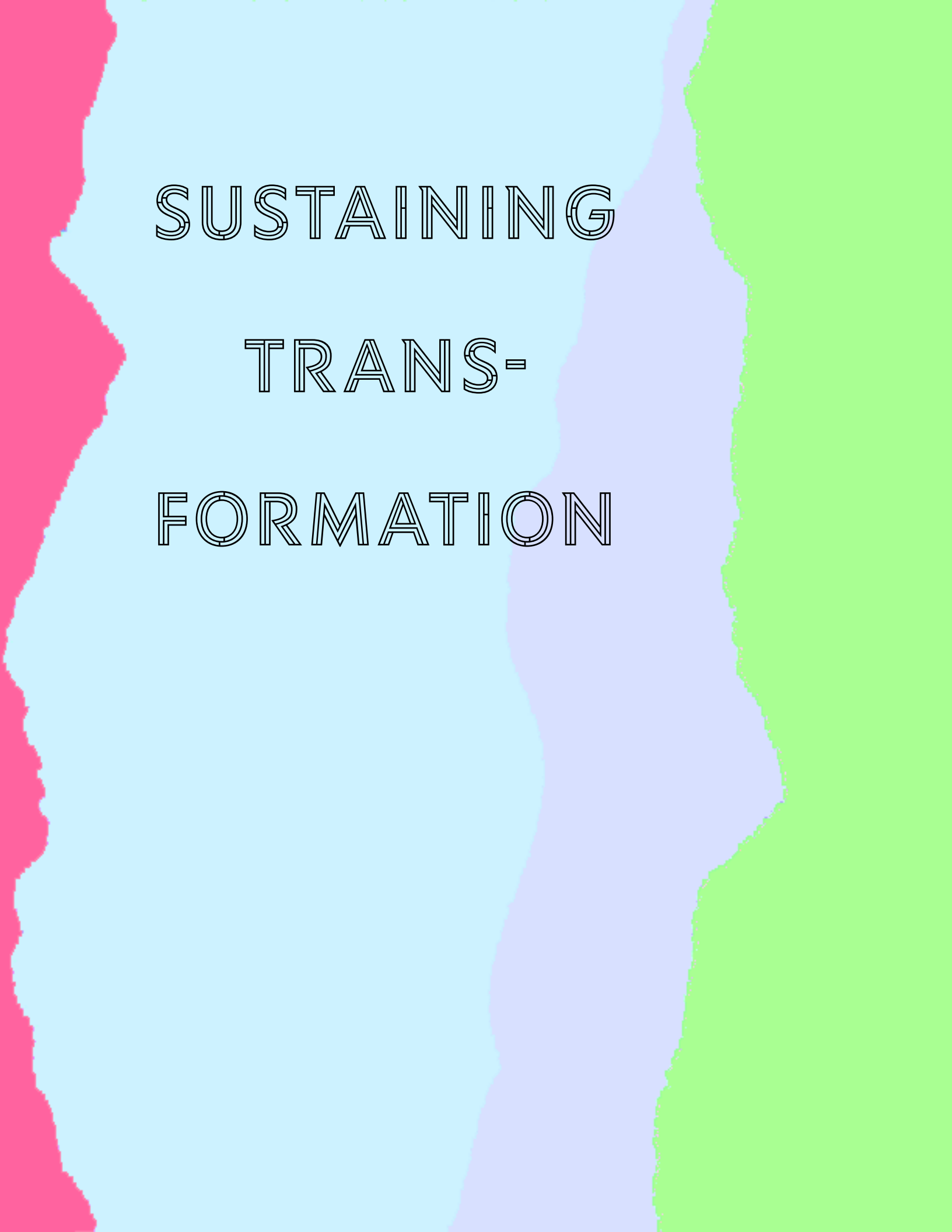
DRIVING ECONOMIC JUSTICE

negotiating shared revenue and ownership of the platform and exclusive access to the software platform in the state of California.

As we began our work with MediRide we realized the mountain of on the ground work required to operate a taxi app platform. To begin with, drivers had to be enrolled in regular weekly testing sessions and we had to ensure MediRide's software platform was compatible with state and local regulations. We engaged in an 8 month long regulatory approval process that ensured the app calculated the fare of a taxi ride fairly. Instead of a black box algorithm based on demand and supply the taxi meter is pegged precisely to distance and waiting time. Any device used to calculate the taxi fare in the state of California needs to be approved by the state department of weights and measures (CADMS). CADMS has tight tolerances and specific conditions under which a taxi meter should perform accurately. For instance, they have their own standardized measuring equipment against which they compare any taxi meter and regulations state the tolerance range to be a 2% error. We spent many months alongside MediRide fine tuning their metering algorithm to be confidently in compliance with regulatory requirements. However, when it came time to file for approval we were given a timeline of more than a year. CADMS was understaffed and underfunded. The union kicked into high gear to tackle this barrier and worked with their political allies. They made a strategic case for the taxi app platform as innovation in the public interest for both drivers and passengers as a potential alternative to Uber and Lyft. The union's advocacy was successful and our appointment with CADMS was moved up by several months. Within 4 months of the initial filing we had a regulatorily approved app ready to onboard drivers.

In April 2023, a full year after signing an MoU with MediRide, we began preparing for deployment. We acquired hardware and car accessories to ensure a smooth driving experience for drivers while utilizing the software platform; costs that platform companies like Uber and Lyft have lobbied tirelessly to escape. We continue to establish policies and work processes that troubleshoot day to day problems that arise between drivers and customers. Throughout this work we continuously broach the subject of ownership and liability of the software platform itself with MediRide. Despite the union's critical role in operationalizing the software platform in San Diego, MediRide continues to put paramount importance on the labor of writing the actual code for the software itself. In our negotiations they often dismiss the labor of on the ground testing, and working around glitches and bugs in the software through our human infrastructure. MediRide maintains the software platform is the most valuable asset, not the drivers, not UTWSD organizers, and not the allied design researchers.

This is the uphill battle cooperatives are facing if they attempt to adopt the platform model of operation. Cooperatives either need large amounts of upfront capital to build their own software or they need to partner with other software vendors. Both scenarios present barriers to the slow work of deepening democracy. Raising large amounts of capital often comes with significant pressures to become profitable in a timely manner. United Taxi Workers San Diego, thus, decided to partner with MediRide, a software vendor, instead of raising capital themselves. But through our work with MediRide we can begin to see challenges that cooperatives may face. Cooperatives may constantly need to convince software vendors of the value of workers' labor on the ground. Furthermore, lacking full ownership of the software platform there are several aspects of the relationship cooperative workers need to be negotiating like data ownership, apportioning liability for failures, and timely bug fixes and development. All these issues remain the topic of future empirical research for our project.



SUSTAINING
TRANS-
FORMATION

Conclusion: Sustaining Transformation

Despite these barriers we have continued to make progress towards “the public option”. First, UTWSD launched the RideUnited app in December of 2023.⁷⁰ The app is currently operational in San Diego with over 700 registered passengers and 30 taxi drivers ferrying passengers around the county. Second, with the expert help of Democracy at Work Institute and financial support from a California Employee Training Panel grant, we were able to facilitate the establishment of United Taxi Cooperative (UTCOC), a democratic driver-led organization. UTCOC has secured its first contract with the San Diego Continuing College of Education starting operations in February of 2024. Third, we are continuing to build political buy-in at the local, state, and national level necessary to operationalize this vision. Throughout these efforts, we have established a legion of allies among lawyers, labor organizers, researchers, volunteers, and political leaders.

Over the next few years our joint team of UC San Diego researchers, UTWSD, drivers, and community volunteers will work on finding pathways to make RideUnited and UTCOC self-sustainable. We will undertake several tasks in service of that. We will develop and implement a novel operating agreement with our app provider that enshrines mechanisms of accountability. Simultaneously, we will develop and institutionalize a worker led governance structure that will operationalize those mechanisms. This project is, thus, on a pathway towards bringing worker led alternatives to extractive “big tech” investment models into the real world. We aim to share generalizable findings for how digital platforms and their accompanying institutions can be designed, developed, and crucially sustained in ways that resist worker exploitation.

However, we need policy and philanthropic action to support economic democracy at work. Public authorities can play an important role by providing publicly funded, and regulated platforms as infrastructure towards creating better jobs. Let’s bring the vision of “the public option” closer. Organizations like UTWSD have already begun this work and made their call for support. It is for policy makers, funders, and researchers to answer that call in order to ensure worker platform cooperatives like United Taxi Cooperative survive and thrive. Cooperatives can only meet their emancipatory goals through coordinated strategic actions in spheres of exchange, production, and politics. And cooperatives are only one of many approaches that workers are utilizing to fight back against capitalism. It is going to take workers fighting together through cooperatives, unions, and advocacy coalitions to achieve the emancipatory societal transformation necessary for our collective liberation.

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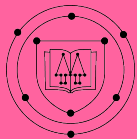
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