

Algorithms in the Margins: Organized Community Resistance to Port Automation in the Los Angeles Harbor Area

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Abstract

Public deliberations on artificial intelligence and machine learning (AI/ML) provoke strong interest in automation, or the perceived displacement of human labor due to general technological advances. Social science scholarship on well-compensated technology workers and a growing global underclass suggests automation remains largely a myth, with emerging technologies generating new forms of computational and emotional work. But little research has examined automation from the vantage point of community members at perceived greatest risk of displacement, such as those sustained by generations of logistics labor and physically located in racialized, underserved areas. In the United States and around the globe, logistics work is directly targeted by “automation engineers” to reduce labor costs on behalf of industry interests, posing a severe threat to port workers and their respective communities. This article examines organized community resistance to automation within the Los Angeles Harbor Area, drawing on four public hearings following the Port of LA’s planned integration of autonomous vehicles for the movement of cargo (i.e., automated straddle carriers). We find community mobilizations widely sought to enlarge public consideration of AI/ML to encompass matters of societal well-being and the collective good. These include shifting from the legality of AI integration to underscore public morality in light of anticipated harm, in addition to emphasizing the invisible social arrangements surrounding the Port and nearby community life. Our research reveals how lay people may reassert their own importance when confronted by technoscientific injustice, such as by reframing the future of work toward an insistence on “the future of our communities.”

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Introduction

Recent advances in artificial intelligence and machine learning (AI/ML) appear posed to transform societies around the globe. Public deliberations on AI and the future of work provoke strong interest in the question of “automation,” or the perceived displacement of human labor due to general technological advances (Pasquale 2020; Ransome 2019). Existing social science scholarship effectively suggests AI technologies *transform* rather than *eliminate* human labor, with high-tech interfaces masking new emotional and computational work that supplements software systems (Shestakofsky 2017; Mateescu and Elish 2019), oftentimes supported by an invisible, global underclass (Gray and Suri 2019; Roberts 2019). However, little work has examined automation from the vantage point of community members at perceived greatest risk of displacement, such as those sustained by generations of logistics labor and physically located in racialized, underserved areas. In the United States and around the globe, logistics work is directly targeted by “automation engineers” to reduce labor costs on behalf of industry interests (Chu et al. 2018; Kalmar 2021). Advances in AI/ML thus appear as a severe threat to certain workers and their respective communities, given growing job polarization and existing spatial inequalities patterned by race and class (Kalleberg 2011; Piketty 2017; Renski et al. 2020).

One key site for automating logistics work is the interconnected port facilities that comprise the global supply chain. Ports around the globe have already witnessed partial or full automation involving AI, such as at the ports of Shanghai and Rotterdam, reflecting strong industry interest in integrating technology within logistics work (Mongelluzzo 2015). Port automation typically comprises a range of modifications in support of AI technologies, such as improved Wi-Fi capabilities, redesigned landside infrastructure, and facility incorporation of real-time data analytics, oftentimes simply described as “automation” or “AI” (Chu et al. 2018; Kalmar 2021). Promoters of AI make promissory claims of productivity gains, enhanced workplace safety, and reduced carbon emissions, oftentimes positioning technology as a solution for societal well-being while obscuring additional objectives such as reduction of labor costs (Chu et al. 2018; Kalmar 2021).

Recent years have witnessed similar efforts to expand port automation in the United States, most notably at the Port of Los Angeles and the surrounding LA Harbor Area. The Port of LA is one of the largest port facilities in the country, connecting Southern California to the global supply chain while supporting the economic vitality of the greater region of Los Angeles. Longshore workers transfer goods from shipping vessels onto distribution trucks, with their well-compensated labor tied to nearly one million trade-related jobs in the five-county Southern California area. The Port recently announced planned technological upgrades to integrate autonomous vehicles for the movement of cargo (e.g., automated straddle carriers), provoking severe longshore worker and community backlash (Roosevelt 2019). This article offers a closer examination of organized community resistance to port automation, moving beyond AI promoter and technology-centered narratives to focus on how the social problem of “automation” appears from the vantage point of community members at perceived greatest risk of displacement.

Drawing from four public hearings held at the Port of LA, we find community mobilizations against automation widely sought to enlarge public consideration of AI/ML to encompass matters of societal well-being and the collective good. We highlight three points of community mobilization:

1. a shift from the legality of AI integration to public morality in light of anticipated harm
2. an emphasis on the social arrangements surrounding the Port and the context of labor relations (e.g., historical and regional significance)
3. a recentering of the interconnectedness of community life beyond the Port itself.

In broadening consideration of the future of work to “the future of our communities,” the problem of automation was effectively reframed as an anticipated loss of a way of life, rather than as the mere reconfiguration of routine work tasks. We contribute to emerging scholarship on AI’s implications for social inequality ([Joyce et al. 2021](#); [Smith-Doerr et al. 2020](#); [Noble 2018](#)), specifically by showing how lay people may reassert their own importance when confronted by technoscientific injustice.

Background: Situating AI and Logistics Work

Public attention to AI and the future of work has skyrocketed in the wake of the Covid-19 pandemic, with technological advances supporting expanded work from home environments and everyday “contactless” consumer transactions. In the face of a global health crisis, automation and AI technologies were often framed as tentative solutions for reducing high-touch human contact (e.g., [Deaux, Attwood, and Rockeman 2020](#); [LaBerge et al. 2020](#)). Yet despite the seeming possibility of social life without need for human labor, the global pandemic also highlighted deep class divides in the nature of work itself, underscoring the widely designated “essential workers” involved in supply chain logistics, food distribution, and package delivery from the white-collar employees working from home using a Wi-Fi connection and company laptop. Indeed, the virtual world of physical distancing did not eliminate the need for basic societal infrastructure, nor did it craft social hierarchies *de novo*: it merely expanded these otherwise invisible relations into greater public awareness, with certain workers able to follow stay-at-home orders while others worked in physical space to support basic life necessities. The promise of “automation” may initially seem a potential techno-solution, but ultimately rings hollow for the everyday, taken for granted people and infrastructure whose work makes technology appear like magic ([Bowker and Star 1999](#)).

One key node of this often invisible, taken for granted infrastructure is logistics work, such as that provided by port workers and truck drivers as a part of the global supply chain. There is surprisingly limited research that explicitly centers these workers and their communities in examining the societal impact of AI/ML, despite strong industry interests in “automating” logistics work to reduce labor costs ([Chu et al. 2018](#); [Kalmar 2021](#)). Social science scholarship instead emphasizes how AI technologies *transform* rather than *eliminate* human labor, ultimately reframing automation as largely a myth (e.g., [Munn 2022](#); [Wajcman 2017](#)). For example, scholarship on well-compensated technology workers traces the emergence of novel human-software complementarity, such as how algorithmic systems generate new forms of computational and emotional work rather than result in complete job loss ([Shestakofsky 2017](#); [Christin 2020](#)). Others study platform-based labor arrangements, emphasizing how complex technological systems intertwine with

human efforts while masking such relations on screen ([Ravenelle 2019](#); [Rosenblat 2019](#); [Ticona 2022](#)). Some similarly argue for recognition of a hidden “global underclass” underpinning computerized tasks such as content moderation ([Gray and Suri 2019](#); [Roberts 2019](#)). In her research on AI and long-haul trucking, Levy ([2022](#)) shows truckers experience increased technological surveillance without full replacement, suggesting automation is perhaps better understood as a matter of social control. Despite this critical scholarship, existing research risks eliding attention to the very community members at *perceived* greatest risk of displacement, such as those bearing the brunt of job polarization and spatial inequalities patterned by race and class ([Renski et al. 2020](#); [Kalleberg 2011](#); [Piketty 2017](#)).

This article, in contrast, focuses on organized community resistance to automation, placing special emphasis on lay perceptions of AI integration within logistics work. It presents a case study of community mobilizations against AI within a working-class, racialized community to understand how automation appears on the ground ([Smith-Doerr et al. 2020](#); [Renski et al. 2020](#)). Such an approach expands scholarly consideration beyond the intertwining of humans and machines to ask broader questions of AI/ML in relation to power and social justice ([Noble 2018](#); [Benjamin 2019](#); [Joyce et al. 2021](#)). In conducting this research, for example, we became far more interested in the strong coordinated effort against automation (even as “myth”)—particularly within a community area already stratified by race and class within greater Los Angeles—than in empirically documenting the integration of automated straddle carriers into labor operations. Rather, community mobilizations against automation offer sociological insight into wider social relations surrounding technoscientific institutions, actors, and practices, including how these intersect with power and inequality. Thus we suspend any claim as to actual job loss or full labor replacement, focusing instead on perceptions of AI from an understudied community at perceived risk of displacement.

Our research privileges everyday worker and community mobilizations against AI, drawing on Brian Wynne’s public understanding of science (PUS) and Luc Boltanski’s sociology of critique to give special attention to an ordinary sense of technoscientific injustice. The PUS tradition positions lay people as reflexive actors with local knowledge of the social world, and intentionally decenters accounts from scientists, AI promoters, and technology experts to reveal the institutional commitments and assumptions within technoscience ([Wynne 1992](#); [Irwin and Wynne 1996](#)). The sociology of critique, developed by Luc Boltanski ([2011](#); [Boltanski and Thévenot 1999](#)), extends lay actors’ reflexive tendencies to further recognize their critical capacities. By following the mobilization of general forms within everyday denunciations of injustice, lay critiques offer insight into moral grammars of the common good and societal well-being. We further supplement these analytical frameworks with Susan Leigh Star’s reminder to ask *cui bono?* (who benefits?) before celebrating the intermingling of humans and machines (see [Star 1990](#)). While we recognize scholarly critiques of the partial nature of lay perspectives ([Epstein 1996](#); [Durant 2008](#)), we also emphasize that working-class, racialized community perspectives on AI/ML remain relatively underexplored to date. Thus we center community mobilizations against AI to better understand how automation appears on the ground to those at perceived greatest risk of displacement.

Field Site: The Port of Los Angeles and Harbor Communities

The Los Angeles Harbor Area is the southern-most region of LA County, connected to the city of Los Angeles by way of the Harbor Gateway (colloquially referred to as the “shoestring strip,” [Creason 2015](#); [Gnerre 2021](#)).

This narrow strip of land was demarcated to annex the smaller cities of San Pedro and Wilmington in establishing a permanent seaport for Southern California (see [figure 1](#)). The successive creation of the Port of LA forged a powerful set of interlocking political, economic, and cultural relations within what would come to be known as the LA Harbor Area. To this day the Port prides itself as an economic powerhouse, serving as one of the largest ports in the country and reporting a 2019 record of traded cargo value of \$276 billion ([Port of LA 2021](#)). Community members residing in San Pedro and Wilmington accordingly depend on the Port for employment opportunities within the otherwise underserved geographic region.

Present-day residents of the Harbor Area not only experience social isolation due to their spatial separation from the rest of Los Angeles, but are further stratified by the region's stark inequalities by race and class. Census figures reveal such stratification in comparing the Harbor Area with West LA's tech hub of Silicon Beach (nearby geographic region with high density of AI and tech start-ups; [table 1](#)). For example, Silicon Beach reports nearly twice the average household income and a fourfold increase in the percent of residents with a college degree compared to the LA Harbor, while the two regions are alternatively racialized as majority White (66%) or predominantly Latino (73%). While certain communities build AI technologies for their deployment in broader society, others find themselves confronted with the threat of "automation" within the course of routine work and everyday life. The LA Harbor Area thus reflects a particular placement within a social order characterized by spatial inequalities patterned by race and class, offering a unique opportunity to study AI in relation to social, political, and technoscientific power.

Historically, the Port of LA has served as an essential place of regional employment for longshore workers, who enjoy high compensation and strong union protections despite relatively low educational requirements. Longshore labor primarily consists of loading and unloading cargo from shipping vessels onto delivery trucks, and carries high risk of injury due to the operation of heavy machinery for the movement of twenty-foot equivalent unit (TEU) containers. In recent years, workforce contracts have trended towards unscheduled and part-time employment ("labor casualization"). Within this context, longshore workers have typically relied on the International Longshore and Warehouse Union (ILWU) to improve working conditions and achieve economic security. Today the ILWU represents over 40,000 dock workers on the West Coast of the United States, and ILWU Chapter 13 plays a highly visible and prominent role within LA Harbor community life ([ILWU Local 13 2021](#)). Nearly 85 years since its founding, workers and their communities now find themselves turning to the ILWU amidst the looming threat of port automation and related advances associated with AI.

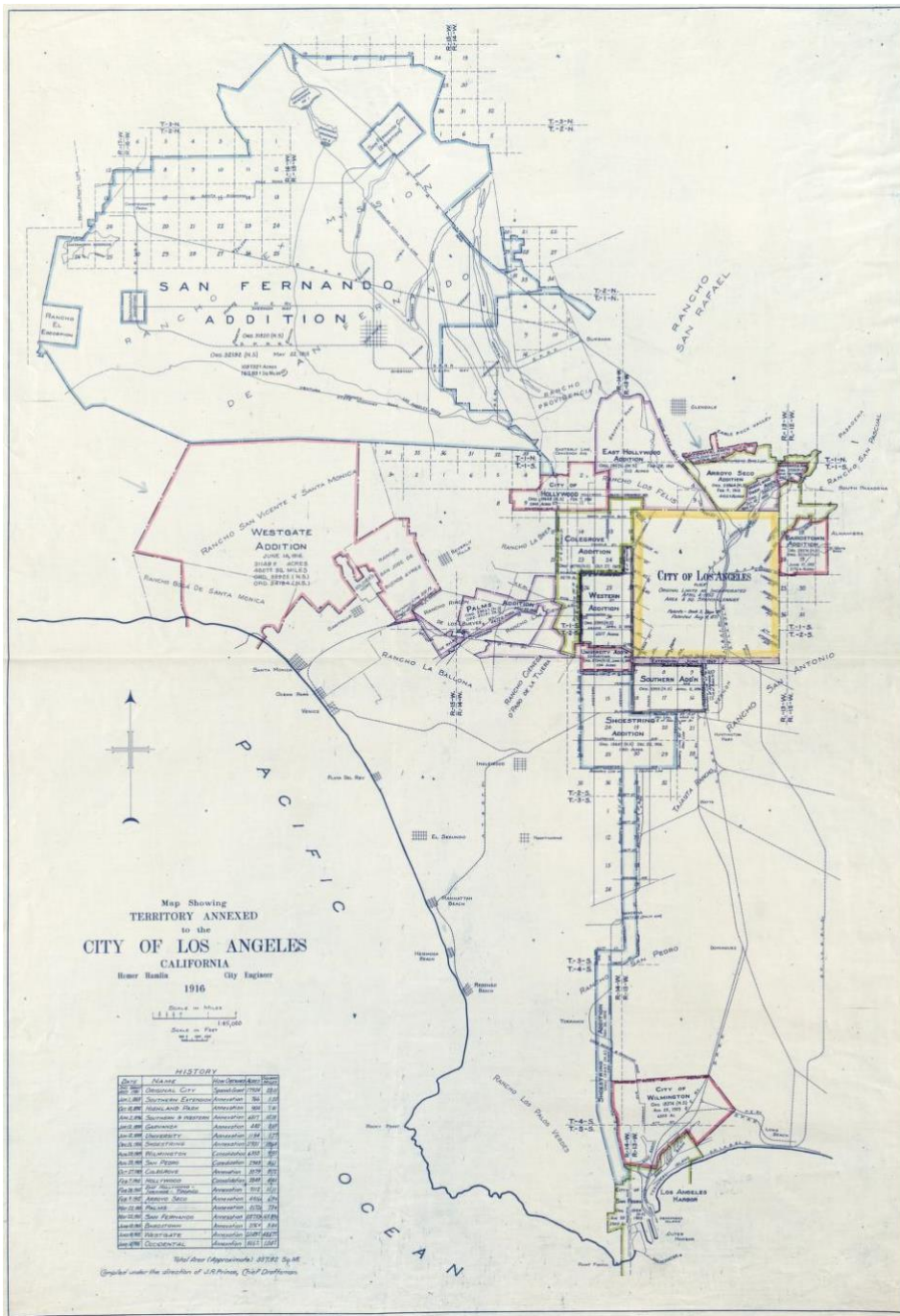


Figure 1. Map showing territory annexed to the city of Los Angeles. Note the shoestring addition connecting the southern neighborhoods of San Pedro and Wilmington to create the LA Harbor Area. Source: Library of Congress 1916.

Case Study: Automation at the Port of Los Angeles

In 2016, the Port of LA established a partnership with the Danish corporation Maersk®, the world's leading integrated shipping company, to provide upgraded container ships in aim of reducing the environmental impact of vessels. Maersk also proposed a series of modernization upgrades to the port terminal, contracting with Kalmar Global® to introduce automated straddle carriers for the transfer of cargo onto delivery trucks.

Table 1. Regional Demographics: Household Income, Education, and Race and Ethnicity

	Los Angeles County (ref)	LA Harbor Communities ¹	Silicon Beach, LA Tech Hub ²
Population (total)	10,039,107	117,539	117,351
Median Household Income	\$72,797	\$52,206	\$94,134
Educational Attainment (%)			
Less than high school	20	31	5
High school (Diploma or GED)	21	26	11
Some college (vocational or AA)	25	27	19
Bachelor's degree	22	11	39
Graduate degree or higher	11	5	26
Race and Ethnicity (%)			
Asian or Pacific Islander	15	4	7
Black or African American	8	5	4
Hispanic or Latino/a	49	73	18
White, non-Hispanic or Latino/a	26	16	66
Multiracial	2	2	3

¹ Harbor Communities defined as San Pedro (90731) and Wilmington (90744).

² Silicon Beach defined as Venice (90291) and Santa Monica (90401-5).

All data is drawn from the American Community Survey 2019, one-year data Census Reporter.

The permit in question describes major modification to landside infrastructure, including “installation of charging stations for the equipment, permanent scaffolding to create a vertical racking system for the refrigerated containers, and the installation of some small antenna poles to enhance the existing Wi-Fi network,” with such upgrades all simply described as “automation.” Despite Maersk’s citing of decreased job-related injuries and lowered carbon emissions to justify the project (in alignment with arguments from AI promoters; [Chu et al. 2018](#); [Kalmar 2021](#)), the filing of the permit provoked severe backlash from port workers and the local community, given the uncertain impact of AI integration on port operations and the wider LA Harbor Area.

The Port’s appointed harbor commissioners accordingly held a series of public hearings on site due to permit approval requirements and in response to worker and community resistance to the proposed project ([Roosevelt 2019](#)). Hundreds of participants, including union representatives, community residents, local policymakers, and port scientists, in addition to the harbor commissioners and company executives, engaged in the public hearing proceedings to discuss the integration of automated straddle carriers into facility operations and address community concerns. This article thus examines these hearings to understand how automation appears on the ground, with specific focus on studying community mobilizations against AI within a working-class, racialized community at perceived risk of displacement.

Data and Methods: Public Hearings and Document Submittals

This qualitative study draws from four public hearings held at the Port of LA between March and July 2019, combining hearing transcripts ($n = 9$ hours total) with supporting documentation submitted by participants ($n = 121$ documents). These hearings were initially held to discuss the port’s plan to modernize Terminal 400, but ultimately served as an opportunity for workers and the community to engage with technoscientific institutions, actors, and practices more broadly. Throughout the hearings, the technological upgrades were nearly universally framed as “automation” or simply as “AI” among longshore workers, community members, and port commissioners alike. Port workers and community members combined deeply personal narratives with characterizations of human workers in struggle with “robots” over the port’s labor needs ([figure 2](#) and [figure 3](#)). The supporting documentation reflected multiple viewpoints from participants, and ranged from formal legal documentation of permit requests to local community petitions and media coverage of automation in other industries. Many documents reflected strong organized resistance from the community in particular, including multiple blog posts about the potential dangers of 5G and Wi-Fi, 36 letters gathered from public officials in support of the Union, and 628 signatures against automation from local businesses and community members within the LA Harbor Area. An online petition was also created in support of “blue collar workers against automation at Terminal 400,” collecting thousands of additional signatures and comments ([Guzman 2019](#)).



Figure 2. Digital flyer from first public hearing, created by port workers for online circulation. Note the positioning of humans against machines, and specific focus on “the future of our communities” (in contrast to the future of work). Source: ILWU 13 Website. Accessed February 14, 2024.

Eight team members first transcribed the four recorded hearings before reviewing the supporting documentation, with all data preparation cross-checked by at least two researchers. Data analysis was supported by the use of Dedoose software, and loosely followed the analytic principles of grounded theory (Charmaz 2014). The team’s first round of coding focused on the presence of different interest groups such as public commissioners, company executives, policy makers, port workers, and community members as well as perceptions of AI, automation, and associated societal impacts. The research team then developed a codebook of 36 codes based on the preliminary coding to apply to the hearing transcripts. This second round of analysis was supplemented by additional line-by-line coding to identify emerging themes; these themes were then further explored through a purposive review of hearing document submissions. By combining insights from the transcript coding with document review, the research team then elevated emerging themes into conceptual categories via analytical memo-ing (ibid). These memos were subsequently synthesized into the three critiques presented below.



Figure 3. Photo of protest banner at final public hearing, placed outside of Port of Los Angeles. Note the characterization of AI technologies as “robots,” and centrality of community in responding to automation. Source: Taylor Cruz.

Findings: “Fighting for Our Future”

We organize our findings into three points of community mobilization against proposed technological upgrades, including: 1) a shift from the legality of AI integration to public morality in light of anticipated harm, 2) an emphasis on the social arrangements surrounding the Port and the context of labor relations (e.g., historical and regional significance), and 3) a recentering of the interconnectedness of community life beyond the Port itself. Taken together, these mobilizations reflect a broadened focus from AI and the future of work to reorient attention towards “the future of our communities.”

First Point of Mobilization: Shifting from Legality of AI Integration to Public Morality

At first glance, the public hearings appear to be held due to permit approval requirements for specific technological upgrades (e.g., enhanced Wi-Fi capabilities, reconfigured landside infrastructure). In this framing of hearing events, consideration of AI integration might be narrowly limited to the legal permissibility of adopting automated straddle carriers within port operations. But port workers and community members instead challenged all hearing participants to broaden the issue beyond permit approval and procedural soundness to include concerns of public morality. Because the modernization

project was anticipated to bring about community harm, participants shifted from the legal or technical dimensions of AI to highlight deeper concerns over institutional values and priorities in automating logistics work.

Throughout the hearings, port officials repeatedly emphasized there was no legal justification in support of permit denial (i.e., to block the proposed upgrades for the automation project). Company executives had carefully worked within ILWU contractual agreements, and provided their own legal documentation and counsel in support of integrating automated straddle carriers at the terminal. The longshore workers and supporting community, however, sought to shift consideration to include matters of public morality, anticipating severe harm to the people residing in the LA Harbor Area. When questioned by a port commissioner, for example, the vice president of the local ILWU chapter insisted he was not participating in the hearings to solely discuss the legality of AI integration:

Port Commissioner: I'm trying to anticipate what the terminal operator is going to say, so I want to give you a chance to answer directly. I expect they're going to say that the union negotiated, bargained for an agreement in which the terminal operator has the right to automate. Is that true?

ILWU Vice President: So I would say this: of course it's true. But I'm here speaking as a community member. I'm speaking on the effects it's going to have on my community and what's going to happen in the future for our kids, the people that live here; the realtors, the businesses that we patronize . . . we have over 10,000 signatures from community members, and we have 200 people from [local] businesses.

I'm not here to speak on the contract—the issue of automation is bigger than the contract. It's about the community, the economy, and ultimately the future of the middle class. . . It is not this board's responsibility to negotiate our contract. Your responsibility is to the citizens right here in our community . . . I am here as a community activist, and this is going to be devastating to our community if it happens. Across the board, I'm not here for my contract but for my community.

A narrow focus on the terminal operator's legal right to automate, in this case, fails to consider the anticipated harmful effects AI integration would bring to the community. As a result, participants sought to move beyond legal frameworks to highlight deeper concerns of institutional values and priorities, including calling on the port officials to center community concerns. Some made direct claims of the immorality of automation, positioning it in direct conflict with the basis of society:

This harbor region serves thousands of not only ILWU families but families throughout other communities in the Southland [south of LA] that are impacted by the cargo that we move with rail and outside truckers. You [port officials] will devastate this economy if you allow this permit. . . . Automation will not help our society. It will decimate our social safety net, which is work and jobs. It's wrong, and it's immoral. This will not just affect us—it will put so many other people out of work. Please, please do not slap students, educators in the face; do not slap neighbors, business owners and longshore workers in the face with this.

Several hearing participants called on port officials to heed their expected responsibility to the people of California, broadening institutional commitments beyond strict contractual agreements:

I think you've accepted your responsibility as appointed officials of the city of Los Angeles, and you have acknowledged that today. You've embraced it, and I'm glad you realize that you represent not only port workers, not only community workers, but *you represent the citizens of Los Angeles*, who own Pier 400 and the land that it sits on.

This port is held in the trust of the people of California. So when you make your decision [port officials], you make your decision *based on the people*, not how *you* think it should happen. . . [Automation] is devastation, truly that's the issue here.

Permit approval in support of modernization here carries greater significance beyond legal permissibility or procedural soundness. Because community members broadly anticipated significant harm to everyday people such as themselves, approval from port officials would reflect deeply immoral values from the very institutions expected to stand in for public representation. In sum, community mobilizations against AI challenged narrow framings of the automation project to instead highlight extra-legal considerations in anticipation of devastating societal consequences.

Second Point of Mobilization: Emphasizing the Historical and Regional Context of Labor

AI promoters and industry actors typically approach “automation” as the reconfiguration or replacement of routine work tasks, with computer techniques viewed as alternative stand-ins for human labor. Port workers and their communities, however, emphasize labor's connections with time and space over and beyond typical work activities within terminal facilities. Longshore labor was instead understood in relation to the community's historical, intergenerational identity as well as the Port's regional placement within greater Los Angeles ([figure 1](#)). In this context, automation is perceived as more than the transformation of traditional work activities: rather, it is interpreted as a direct assault on the very people themselves.

During the public hearings, several workers emphasized employment at the Port of LA was a part of their deeply embedded social identities. The present-day occupation of longshore worker carried strong significance within the local community, and the historical context of Port-related labor shaped the aspirations of future generations as well. One worker proudly recounted a story about his children who aspired to join the ranks of longshore labor in the future, recognizing the deep intertwining of work with family life:

When I became a member of the ILWU, it wasn't just an elevation for my life, but this was an elevation for my whole family. . . My son is autistic, and when he had his first IEP [Independent Education Plan] they asked him, “What would you like to be when you grow up?”—my son, with his limited vocabulary and everything, he said, “I want to move the cans like my daddy at the port!” And my step-daughter initially wanted to be an engineer, but a year ago when we started hearing about different rumors of automation, I told her about it, she said, “Well Dad, if the job's not going to be there . . . I was just going to tell you I want to be a longshoreman just like you.” [Cheers and applause from public hearing attendees]

Hearing participants also cited their own long-term residence within the LA Harbor Area, and traced their intergenerational connections to the region. The problem of automation thus was perceived as more than the mere reconfiguration of work tasks at the Port, but rather was situated within a much wider set of community relations:

I'm a lifetime resident of San Pedro and the harbor area, a third-generation longshoreman, and I hope future generations of my family can also benefit from the San Pedro bay. As you know, one vote in Congress chose San Pedro bay over Santa Monica—otherwise we'd be having this debate in Santa Monica right now (referring to historical creation of the Port and annexation of San Pedro to Los Angeles; [figure 1](#)). But we're not there, we're *here*, here in the San Pedro Harbor area.

I'm a first-generation longshoreman, and I'm very proud of it. When they talk about longshoring and they talk about “my dad's down there, my uncle's down there [on the docks]” . . . I'm the dad, I'm the uncle, and I'm proud. The lifestyle has afforded me to keep my wife at home and to provide a home, a private education for my daughters. It's just a great, great job. More importantly, I'm a first-generation American, my parents were from Mexico, and my grandmother worked in the canneries, my father-in-law was in the fishing industry, my father worked at Todd shipyard, and my mother was a teacher's aide at [local school].

Port workers and community members thus presented their work and lives as intimately bound to contextualized time and space. Present-day port operations were linked to histories of harbor-related work from previous generations, and were further situated within the local specificity of the LA Harbor Area. Given this particular historical and regional context, some interpreted the Port's pursuit of automation as a direct assault on the people themselves:

I was born and raised here, and they taught us hard work . . . but now they're trying to replace us with robots. Todd shipyard is no longer here. The fishing industry is pretty much gone, canneries are gone. Instead of working together, *now they just want to get rid of us*.

I am here on behalf of Union women, in solidarity with thousands of mothers, wives, and longshore women. I've lived in San Pedro my whole life. I've worked in the Port of Los Angeles for the past twenty years. I've provided a wonderful life for myself and my three sons because of the ILWU. I was here when Pier 400 was built. The few things I heard was it would not take away the coastal beauty that we see every day from the hills of San Pedro. *They lied*. They also said it would create more jobs for ourselves in our community. *Now it's time you keep your promise . . . we need those jobs, we need our children's jobs, and we need our future* (see [figure 4](#)).

The proposed automation project was thus understood as a direct threat to worker and community social identities, which intertwined with the historical and regional context of labor. From the workers' perspective, this perceived loss of identity—resulting in a long-standing connection to the LA Harbor region, but without the promise of employment tied to the Port—introduced a deep questioning of who they were and who they might become. Overall, this community mobilization reframes automation as more than the reconfiguration of routine work tasks: rather, AI integration is perceived to pose a severe disruption to the historical and regional context of community life.



Figure 4. A retired port worker proudly beams over her grandchildren at public protest. Note intergenerational identity: “ILWU Strong: Fighting for our future.” Source: National Public Radio. Accessed February 14, 2024.

Third Point of Mobilization: Recentering the Interconnectedness of Community Life

A final point of community mobilization concerned AI’s anticipated impact beyond formal Port operations or labor relations, as workers perceived AI integration as introducing compounding adverse effects within the surrounding community. Because workers and community members understood that the vitality of the port was intricately interwoven with life beyond it, they questioned how the region would sustain the social,

political, economic, and cultural activities of everyday lives if the permit were approved. In doing so, participants thus reframed attention to the future of work to instead emphasize “the future of our communities.”

One way participants centered the interconnectedness of community life was by drawing a strong divide between what humans and “robots” can and cannot do outside of the Port. While this characterization draws on simplified notions of the human versus machine, it also reveals how lay people reassert their own importance and dignity beyond formal labor participation:

Longshore jobs are well-paid and well-earned. Without these jobs, there will be no economy. Robots do not pay taxes. Robots do not shop in our communities. Robots don't pay rent. They don't buy homes. They don't lease office space. They don't deposit money. Robots do not vote. Robots do not attend LA Fleet Week. They don't go to waterfront events. They won't use the waterfront promenade, the bike paths, the California Coastal Trail. . . . Robots do not do any of that. If this permit is approved, our community will be on its way to becoming the next Detroit.

[Employment at the Port] is how generations create lives. It's how families put kids through schools, this is how they pay for weddings, this is how they provide a quality of life for the whole community. What you decide here [permit approval] will affect generations of folks.

Employment at the Port here is understood as central to community life, but in isolation it inappropriately reduces human actors to their labor. In contrast, political, cultural, educational and familial participation within the LA Harbor Area provides the very substance of life across generations. Community members similarly expressed automation's potential impact on the local economy yet recognized everyday activities beyond the circulation of money, as one co-owner of a local restaurant expressed:

The issue of automation has us all now worrying about the future. Several of my fellow restaurateurs and I have and will continue to express concern on its effect on the local economy and small business. I currently employ 54 people supporting themselves and their families, but the issue goes deeper than that. If the local economy suffers, the community suffers. Less money spent in our stores and eateries equals less money from my business to use to sponsor a local Little League team, to buy a table at the adult prom benefiting young women in our community, less resources to donate ten pizzas a day to our teachers who are on strike. . .

These are the people [longshore workers] who are here every day working and supporting our community. When you drive down the 110 south and see the bridge and cranes come into focus, that is the symbol of this town, in this region a symbol for the working man, a community built by him that relies on him—people on the docks are truly the lifeblood of San Pedro and the LA Harbor area.

Similarly, another hearing participant recognized community participation over and beyond labor and financial contributions:

Now we talk about jobs and restaurants and how the money infuses a community, but there's another thing: the people here [of the LA Harbor Area] are not just labor. They're members of our community. They coach Little League teams, when they see a child cannot afford cleats they will come out of their pocket to buy them cleats, to buy them uniforms. This is not just about the value on the dock, because a robot will never go into our churches, or go on strike with teachers . . . [automation] will create a domino effect throughout our whole community.

These arguments concern the interconnectedness of life beyond the Port, extending automation's perceived impact on jobs into the surrounding community as well. AI promoters promise potential productivity gains with port automation, yet the LA Harbor communities widely expect the loss of a particular way of life. In positioning themselves against the coming "robots" and as more than mere labor, participants reasserted their own importance within the context of community.

Discussion and Conclusion: Reimagining Automated Systems for All

In this article, we examined organized community resistance to automation in the Los Angeles Harbor Area, with specific focus on lay perceptions of AI integration within logistics work. This research offers a powerful case study of how automation appears on the ground within a predominantly working-class, racialized community that remains spatially isolated from high density technological centers in the greater surrounding area (e.g., West LA's Silicon Beach). Port workers and community members widely sought to enlarge consideration of AI/ML to encompass matters of societal well-being and the collective good. In participating in the hearings, for example, they shifted from the legality and permissibility of AI integration to its public morality in light of anticipated harm; they also recognized the historical and regional context of labor at the Port, while centering the interconnectedness of human participation and community life beyond it. Taken together, these mobilizations mark a reframing of automation beyond the future of work to reorient attention toward "the future of our communities."

Previous social science literature emphasizes AI technologies and their transformative potential, such as how automation creates the conditions for new kinds of work without resulting in large-scale total job loss. By some accounts, automation remains largely a myth (e.g., [Munn 2022](#); [Wajcman 2017](#)), given the renewed forms of human-software complementarity accompanying algorithmic systems ([Shestakofsky 2017](#); [Christin 2020](#)). Indeed, understanding the effects of AI technologies is itself an extraordinarily difficult task, given the hidden chains of labor behind the screen and around the globe ([Gray and Suri 2019](#); [Roberts 2019](#); [Ticona 2022](#)). Yet scholarly accounts of automation that prioritize new forms of computational and emotional work, platform-based labor arrangements, and even the emerging "global underclass" remain incomplete without considering the often invisible, taken for granted infrastructure of logistics work. Longstanding investment in AI/ML within such work, particularly within the context of port automation, reflects the powerful interests of industry despite recognized uncertainty over actual total job loss ([Chu et al. 2018](#); [Dekhne et al. 2019](#)). Recasting automation as myth then provides little reassurance to the working-class, racialized communities at perceived greatest risk of displacement, who instead remain largely concerned with societal well-being and the future of their communities.

This research further demonstrates how lay people may reassert their own importance when confronted by technoscientific injustice, such as by refusing the notion that advances in AI should come at their expense. While classic STS literature from public understanding of science positions lay people as reflexive and agential (e.g., [Wynne 1992](#); [Irwin and Wynne 1996](#)), we show how such critical capacities can further serve as a source of social power. Limiting scholarly attention to the preservation or transformation of jobs at the Port of LA, for example, would obscure how community members themselves revealed the wider social relations surrounding institutional and industry investment in AI/ML, the historical and

regional context of longshore labor, and the importance of human participation within everyday community life. Moreover, such research would risk contributing to the general invisibility of how lay people may resist the logics of technoscientific institutions, actors, and practices. We note the organized resistance presented here required concerted effort from working-class, racialized community members, echoing Alondra Nelson’s reminder that “we shouldn’t accept the notion that working-class people, or people who haven’t had certain kinds of educational benefits, are less competent, less interested, less passionate about, and less innovative in science and technology” (Nelson 2021: 28). By highlighting mobilizations against automation on the ground, we have shown how community members may assert their own voices in seeking to shape AI and emerging technological futures.

We conclude this article by calling for an engaged social science and STS that brings matters of justice to bear on science and technology. We sought to follow the algorithms in the margins, but found the legal and technical working of AI systems to be relatively marginal against wider community concerns. By placing themselves front and center at the problem of “automation,” community members presented an open challenge to the otherwise seemingly inevitable march of technoscience. We join in their insistence on the possibility of equitable innovation, and invite all audiences to build upon their efforts in reimagining how automated systems might benefit us all.

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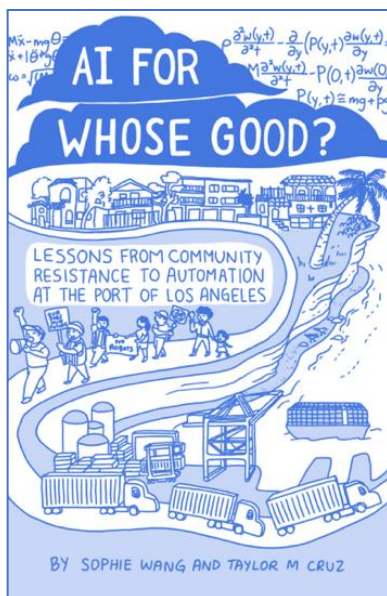


Figure 5. Cover of critical STS zine “AI for Whose Good?” By Sophie Wang and Taylor M. Cruz.

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