

From the Future of Work to the Future of Labor: Centering Worker Resistance in the Age of AI and Automation

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Abstract

Dominant "Future of Work" narratives often frame AI, automation, and other emerging technologies as inevitable, solely focusing on their impacts rather than critically examining the forces driving their development. This perspective has led to technologies that aim to facilitate human-technology partnerships, enhance worker productivity, and even promote worker wellbeing. However, embedded within many of these initiatives are corporate logics that ultimately lead to increased worker exploitation, surveillance, and managerial control. In response, workers actively resist these harmful structures through everyday acts of resistance and collective action. Drawing on four case studies across various sectors, my dissertation reframes worker resistance not as mere reactions to technological harm, but as explicit acts of "futuring" that challenge dominant imaginaries and propose alternative pathways. I propose a shift from the "Future of Work" to the "Future of Labor," positioning labor not as a passive subject of technological change but as a proactive force in shaping more just and sustainable futures.

CCS Concepts

• **Human-centered computing** → **Empirical studies in collaborative and social computing.**

Keywords

labor, resistance, future of work, worker-centered design

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1 Introduction

Over the past decade, narratives about the potential of automation, AI, and other emerging technologies to rapidly transform labor have largely fallen under the naturalizing banner of the "Future of Work." Within HCI literature, scholars have explored how the rise of algorithmic management [15, 16], workplace monitoring systems [2, 13, 19], and online gig platforms [9, 10, 14] have restructured the

workplace, subjecting workers to intensified surveillance, precarity, and managerial control. Others have examined the potential for more effective worker-technology collaboration to improve productivity, efficiency, and even wellbeing [11, 12, 17]. However, critical HCI scholars have surfaced the corporate logics behind many "Future of Work" initiatives that emphasize close partnerships with machines [1]. This framing can obscure the underlying structural conditions that drive worker exploitation while minimizing the role of worker struggle in shaping technological change [1]. In response, a growing body of work has taken a critical turn toward worker-centered design [5] and digital workerism [3, 4], which position workers as active agents in shaping technologies that advance their wellbeing, autonomy, and collective power [7, 8, 16, 21].

Drawing on Greenbaum's [6] "Back to Labor," and building on these recent efforts, my dissertation calls for a reorientation away from dominant "Future of Work" narratives that prioritize technological innovation toward a "Future of Labor" that centers worker struggle. By focusing on worker resistance as a critical site of inquiry, I position these acts not merely as reactive responses to inevitable technological change, but as forms of "futuring" [22] through which more just and equitable labor conditions are imagined and enacted. To examine these dynamics, my dissertation is guided by the following research questions:

- **RQ1:** What are the sociopolitical logics that underpin dominant narratives of the "Future of Work" and the technologies designed to help enable them?
- **RQ2:** How do workers resist, subvert, or reshape these systems, and how can these acts be understood as forms of "counter-futuring" or alternative world-making?
- **RQ3:** How might we co-design alternative labor futures that center worker wellbeing?
- **RQ4:** How might a shift from the "Future of Work" to the "Future of Labor" orient academic, design, and policy approaches to better support workers?

Drawing on four case studies across diverse sectors and contexts, I investigate how workers respond to and contest the implementation of harmful sociotechnical systems, and how these acts of resistance reveal competing visions of what the future of work could be. By foregrounding these struggles, I aim to expand HCI design and policy beyond short-term technological fixes and toward supporting workers' sustained collective efforts in shaping more equitable labor futures.

2 Research Overview

My dissertation is structured around four case studies, three of which are complete or nearing completion. To address my research questions, I employ a mixed-methods approach that integrates

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qualitative research (e.g., content analysis, participant observation, ethnographic interviews) with participatory and speculative design methods. This approach allows me to closely examine the power relations embedded within "Future of Work" initiatives (RQ1 and RQ2), while also collaborating with affected communities to co-design more just, worker-centered futures (RQ3 and RQ4).

2.1 Completed Works

2.1.1 Study 1: How Workers Resist Surveillance Technologies on the Job. In my first case study, I draw on analysis of Reddit posts and in-depth interviews to investigate how workers across various sectors experience, understand, and resist the growing presence of workplace surveillance technologies (WSTs) [19]. While these tools are often promoted to improve productivity, efficiency, and safety, workers described facing numerous privacy concerns, as well as significant stress due to the constant threats of disciplinary action as a result of these technologies. Embedded within these technologies are corporate logics that ultimately lead to increased worker exploitation, surveillance, and managerial control. In response, workers engage in everyday acts of resistance, such as commiseration, obfuscation, soldiering, and quitting that directly challenge the assumptions embedded in these systems. Despite the limited power and legal protections workers have in the face of intrusive monitoring, these tactics signify workers' ongoing negotiations over power and dignity in the workplace. This case study highlights a future of labor that centers worker agency and autonomy in the shaping of technologies and policy.

2.1.2 Study 2: How Frontline Workers Resist through Translation. In my second case study, I examine how frontline workers within Asian American Pacific Islander community-based organizations (CBOs) contend with disempowering sociotechnical practices, particularly the use of datafication as a means to receive government funding [20]. While framed as mechanisms for accountability and efficiency, these practices often divert CBOs from the relational, community-building work they were founded to do. Drawing on interviews with 16 workers, this study surfaces how these data-driven practices are embedded with racialized, colonial, and technocratic logics that prioritize institutional legibility and quantifiable outcomes over the lived realities and nuanced needs of communities. In response, workers resist by reconfiguring data practices that have historically been used for surveillance and translating numbers into powerful counter-narratives for their advocacy work. This labor of translation, often feminized, racialized, and invisible, presents a future of labor rooted in relationality, care, and collective survival.

2.1.3 Study 3: How Tech Workers Build Collective Power. In my third case study, I conducted interviews with 44 U.S.-based tech worker-organizers who have unionized and participated in collective action [18]. While dominant narratives often portray tech workers as prestigious and immune to traditional forms of labor struggle, interviewees described facing increasing precarity and instability across the industry. Here, I investigate how the infrastructures and ideologies of the tech industry—such as fissuring, platformization, and techno-libertarianism—pose barriers in tech workers' organizing efforts. Despite these constraints, organizers are able to break through individualistic silos and challenge dominant narratives

by cultivating community, fostering political consciousness, and forging alliances beyond their immediate workplaces. Through their organizing, tech workers envision a future of labor rooted in long-term sustainability, solidarity, and ethical responsibility over short-term corporate gains.

2.2 Ongoing and Future Work

Thus far, my work has focused on examining the sociopolitical logics embedded in "Future of Work" initiatives (RQ1), and the ways workers resist and reconfigure these systems (RQ2). Looking ahead, my ongoing and future work will leverage participatory and speculative design methods to explore how we might co-design alternative labor futures (RQ3) and better support workers through a "Future of Labor" orientation (RQ4).

2.2.1 Co-designing a Workplace Surveillance Tracker. In my previous study, workers reported facing a lack of transparency and information about workplace surveillance technologies. This project aims to co-design a public-facing tracker with workers, advocates, and policymakers to increase visibility and accountability around this issue. This tracker will be populated with cases pulled from several data sources, including news outlets, academic publications, legal cases, government agency reports, and vendor websites, among others. To ensure that workers' lived experiences are centered, the platform will also feature a space for workers to contribute their own cases and personal testimonials while preserving their privacy. By offering detailed information from various credible sources and including firsthand accounts from workers, the tracker will serve as a resource to inform the public about current surveillance practices and trends in the workplace and help them take action.

2.2.2 Co-designing the Future of Labor. For my final case study, I will focus on co-designing possible labor futures amid the rapid expansion of data centers and AI infrastructure in Pennsylvania. Moving beyond the confines of individual workplaces, this project takes an expanded lens to examine how these emerging technological infrastructures interact with broader labor ecosystems and communities within a specific region. I aim to conduct participant-observations, semi-structured interviews, and participatory speculative design workshops with local residents, unions, and advocacy groups. By adopting a broad definition of labor that includes community-sustaining practices like mutual aid and care work, this research seeks to amplify community-driven visions of labor centered on collective wellbeing.

2.3 Contributions

My dissertation makes several key contributions to the CSCW and broader HCI community. First, I offer a theoretical reorientation away from dominant "Future of Work" narratives that center technological innovation toward a "Future of Labor" that centers worker struggle. Through four diverse case studies, I provide empirical insights into how workers experience and resist harmful sociotechnical systems through everyday acts of resistance and organizing. Finally, this research extends scholarship on worker-centered design by foregrounding worker resistance as a generative site of speculative world-making through which more just and equitable futures of work can be envisioned and enacted.

2.4 Goals for the Doctoral Consortium

By the time of the CSCW 2025 Doctoral Consortium, I will have successfully defended my dissertation proposal and will be in the early stages of conducting my final case study. The consortium offers a crucial space to receive feedback on the methodological approaches and theoretical framework of my dissertation. In particular, I hope to get feedback on the design of my last study, which will involve speculative and participatory design approaches with diverse communities. I would appreciate guidance on sustaining long-term community engagement throughout the design process. Beyond feedback, I am eager to connect and cultivate a supportive network as I prepare to enter the academic job market starting in Fall 2025.

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