

**Title:**

Fairer Futures of Work for Low-Wage Service Workers: A position statement by Lynn Dombrowski

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**Abstract:**

I am interested in the low-wage service workers that make possible for information workers to work from home. By low-wage service workers, I mean folks who earn low-wages (low-wage typically means less than approximately ~\$12/hour per the United States Department of Labor (USDL)) and, in some regard, work with customers (e.g., cashiers, fast food workers, retail, hospitality, warehouse, transportation, etc., all work with customers in some capacity). These low-wage folks underpin many services that make it easier, and possible to some extent, for information workers to safely stay and work from home. These services are usually embedded in sociotechnical systems that automate interactions between workers, customers, and provided services. For example, grocery and retail workers are part of sociotechnical systems that make grocery or store pick-ups possible, food and restaurant workers are part of sociotechnical systems that where food can be ordered and then automation technologies divide tasks across different workers, etc.

In this position paper, I briefly discuss how low-wage service workers are a type of information worker and the ongoing relevant projects in my lab. Lastly, I will present a short Worker Centered HCI agenda for helping produce fairer futures of work.

**Why and how are low-wage workers relevant to computing research?**

There are several major factors that motivate studying, and viewing, low-wage workers as information workers. First, low-wage work, like many occupations in retail, hospitality, and custodial services, is often considered non-technical (*e.g.*, Rosemary and Jones, 1984]), but such professions are often inundated by technology in the workplace. For example, their practices are frequently regulated and shaped by technology (*e.g.*, computerized work scheduling systems that control their time; keycards that track worker's location and movement; timekeeping systems that document their work hours). Additionally, these workers often use or control information-related technologies in the scope of their work. As mentioned earlier, much of low-wage work is within the purview of sociotechnical systems that provide services for

customers, ranging from product creation and delivery to the systems that manage workers to even hiring workers like automated hiring systems.

Regarding the second factor, there have been recent calls by HCI researchers to examine the role of technology in shaping and reproducing economic and social inequality [31, 42]. Speaking to this broader call, I have been studying low-wage workers' sociotechnical practices and the larger sociotechnical systems that impact workers. Work studies have long been important to the field of HCI, and other related disciplines such as Participatory Design, with many seminal theories of sociotechnical interaction developed out of workplace-based investigations. Examinations of workplace practices are extensive, from communication, to collaboration and coordination, and productivity. In recent years, a number of studies have directed explicit attention towards the often divergent and even conflicting goals of organizations and individual workers [e.g., Cecchinato et al., 2014; Mazmanian & Erickson, 2014]. These conflicts are by no means new tensions, but rather suggests that historically HCI scholarship has ignored this theme, most likely in an effort to be seen as neutral and apolitical [see critiques by Bardzell, 2010]. Drawing together the lineage of workplace studies and the politics of participatory design work, scholars argue for renewed attention to workers' rights and the role of technology in shifting employment relations [Forlano & Halpern, 2015; Rosenblat & Stark, 2016].

By combining these factors, it positions an examination of low-wage workers' experiences as a key site of inquiry in understanding the evolving relationship between labor, computing, and social inequality. Given that such low-wage workers use computing technologies and their work sits within larger sociotechnical systems, I would argue that such low-wage service workers are a type of information worker. I realize y'all may have a much more specific and exacting definition of information worker and thus, my position statement may not quite fit what y'all are looking for in your discussions at the workshop.

#### **Relevant Current Lab Projects:**

In my lab, I have several ongoing projects relevant to a discussion on new future of work, including:

- 1. *Designing for wage violations:*** Within this project, I am designing to understand the efficacy of possible social computing interventions for wage violations. Wage violations are any illegal activity by an employer or manager that denies benefits or wages to employees; such challenges are pervasive and detrimental within low-wage work. In the past, I've identified the information and sociotechnical practices of low-wage workers to address wage violations [Dombrowski et al., 2017]. Currently, I am designing and prototyping potential social computing interventions to help address wage violations. For example, for workers to fight wage violations, they need clear and consistent work documentation. How might we use mobile tools to help them develop such documentation?
- 2. *Designing within capitalism:*** As I conducted my own design research, I realized that computing interventions already exist for wage violations. In this stream of research, I'm examining the efficacy of social computing tools to address wage violations. I am

interviewing project stakeholders related to the design, development, and use of such technologies. This work is still ongoing and has not been published. When this project began, I anticipated hearing complex stories about the different challenges and successes of social innovation computing projects, and where continued design efforts may support them. During my interviews, however, participants shared experiences with projects unable to achieve their initial goals, ranging from worker adoption, relationship building, education and outreach around labor and wages, or providing workers with monetary or institutional (e.g. legal) support. When analyzing the concerns these applications faced, these various 'failings' initially seemed disconnected, but ultimately point to larger structural issues relating to capitalism and its manifestations in the US. Broadly, capitalism refers to our shared economic language for understanding the relationships between workers, employers, money, and markets in a system that preferences private ownership. More recently, critiques have begun to question unfettered capitalism because of adverse effects like extreme wealth inequality, labor destabilization, un-sustainability, and even racism. For HCI, CSCW, and extant fields to fully participate in building new, fair futures of work, we need to understand and account for neoliberal capitalism's mechanisms and how implicit motivations of larger socioeconomic structures directly impact workers and their working conditions, and social innovations' ability and limit to intervene in such spaces.

- 3. Examining low-wage service workers within sociotechnical automation system:** Lastly, I'm looking sociotechnical aspects of low-wage work by examining how automation systems impact low-wage work, workers, and workplaces. I'm currently collecting data related to the experience of retail, fast food, and transportation/warehouse low-wage service workers to understand such worker's perspectives on how automation computing technologies have impacted their work and to envision different design possibilities within the scope of this work.

### **Worker-centered HCI design and research agenda:**

I would love to be part of conversations where we can talk about potential worker-centered HCI design and research agendas. Based on my expertise and past research, I have identified several key areas where an HCI empirical research and design agenda could promote fairer futures of work, including worker's rights, gains sharing, intersectional futures, and "studying up" businesses.

- 1. Fostering worker's rights:** In the U.S. there has been a general decline in the strength of workers' rights as evidenced by the adoption of right-to-work policies, in the lack of enrollment in unions, and a dearth of adequate new, sociotechnical or otherwise, forms that might support workers' rights [Forlano & Halpern, 2015; Ticona, 2015]. How might we understand, identify, and design for information components of workers' rights?
- 2. Gains sharing:** Another key trend related to the U.S. is that while worker productivity has continued to rise, compensation has not [Mishel, 2012]. Gainsharing is a system that rewards workers when the company overall does well. How can we design computing technologies to benefit from gainsharing tactics and strategies? How do figure out what's

3. ***Building resilient intersectional futures***: There are many different possible futures of work because people have different backgrounds, genders, classes, races and so on that all impact their experiences of work and workplace information systems. How might we design for resilient intersectional futures of work?
4. ***Studying up on businesses***: Beyond designing and studying workers, we should “study up” regarding the design of workplace information systems. Studying up is a term from anthropologist Laura Nader, where she advocates for studying people and institutions that have power and resources [Nader, 1972], rather than marginalized communities. Within the context of HCI, such an epistemological framing shift might entice us to examine how workplace information systems are design in practice and in use.

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