

At a Crossroads: Worker Voice and the Future of Workplace Technology

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Worker-Centered Design Foundations

Technology is not inevitable, it's designed.

Worker-centered design builds on decades of research showing that workers should help shape the technologies that affect their jobs.



Worker-Centered Design Foundations

Design Tradition	Core Insight	Relevance to Workplace Technology
Reflective Design (Schön)	Design is an iterative process of learning from practice.	Workers possess critical expertise about how work is actually done.
Design Inquiry (Buxton)	The goal of design is to imagine and create better futures.	Technology choices are not fixed; alternative futures are possible.
Participatory Design (Ehn)	Those affected by technology should participate in its design.	Worker voice should be part of technology design, deployment, and governance.

Key Question: How can workers participate in the design, deployment, and governance of workplace technology?





Why does this matter now?

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A Worker-Centered Partnership

Preparing workers for a future of automation

Ensure that worker voice, safety, agency, and wellbeing are considered alongside technological innovation.

Research Questions:

- How are AI and automation changing hospitality work? What do workers experience when new technologies are introduced?
- How can workers participate in technology design and deployment? How can worker perspectives inform bargaining and governance?

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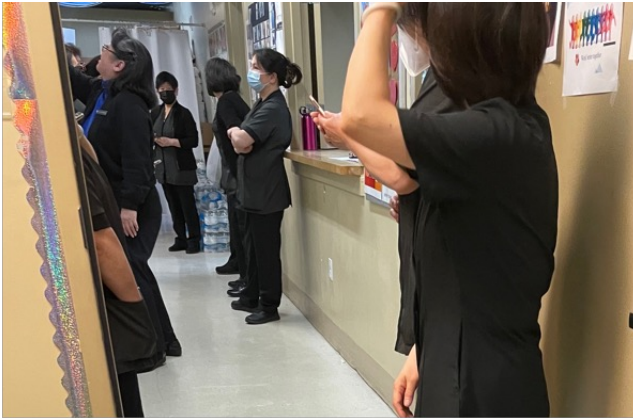
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AI and Automation in the Hospitality Industry

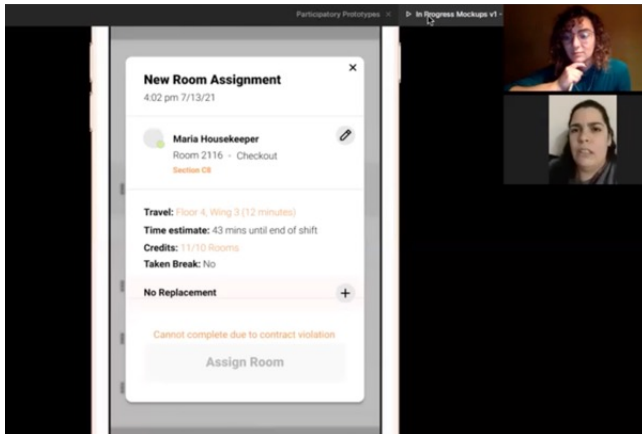


Research Approach



Observation at Hotels across the US

Conducted observation and interviews with housekeepers, supervisors, and IT staff at properties in Las Vegas, San Francisco, Chicago, among others



Workshops & Collaborative Prototyping

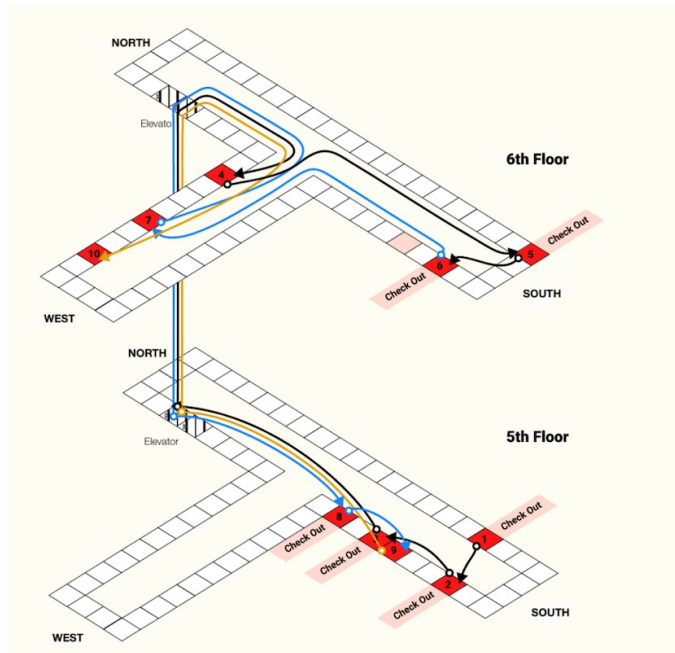
Facilitated co-design workshops with dozens of housekeepers, and follow up prototyping sessions to refine design concepts

Workers Experience: Algorithmic Management



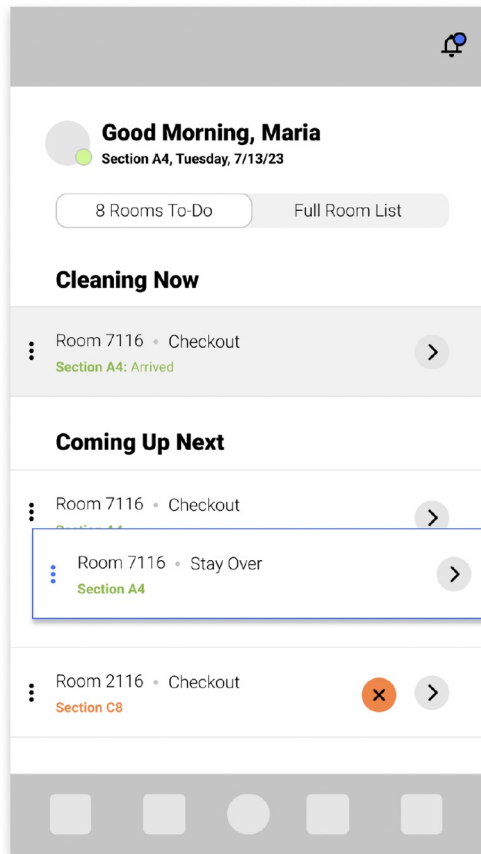
- AM systems determine which rooms are cleaned, in what order, and how labor is allocated
- Workers often cannot see their full assignments, reorder work effectively, and lack understanding of how decisions are made

What Worker Participation Revealed



- Workers, managers, developers, and hotel leadership viewed the same technology differently
- Comparing perspectives revealed competing priorities
- Many challenges stemmed from design, implementation, and training decisions
- Worker knowledge surfaced opportunities for improvement that other stakeholders overlooked

Designing Alternatives With Workers



- Workers sought greater control over room sequencing
- Workers and researchers developed a self-sequencing alternative
- Technology redesigned to support—not replace—worker judgment
- Worker participation improved transparency, autonomy, and workplace outcomes

(Spektor et al, 2023)

From Participation to Governance

Worker voice shaped both the technology & the rules governing its use.



- Worker experiences revealed limitations of AMs
- Co-design generated alternatives such as self-sequencing
- Union translated these ideas into bargaining demands
- Contract language institutionalized worker voice in technology decisions





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Broader Impacts

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Workers First: Shaping the Future of AI



PRESS RELEASE

AFL-CIO and Microsoft Announce New Tech-Labor Partnership on AI and the Future of the Workforce

December 11, 2023



New AI alliance will educate workers, incorporate labor's voice in tech development and help shape policy that supports workers

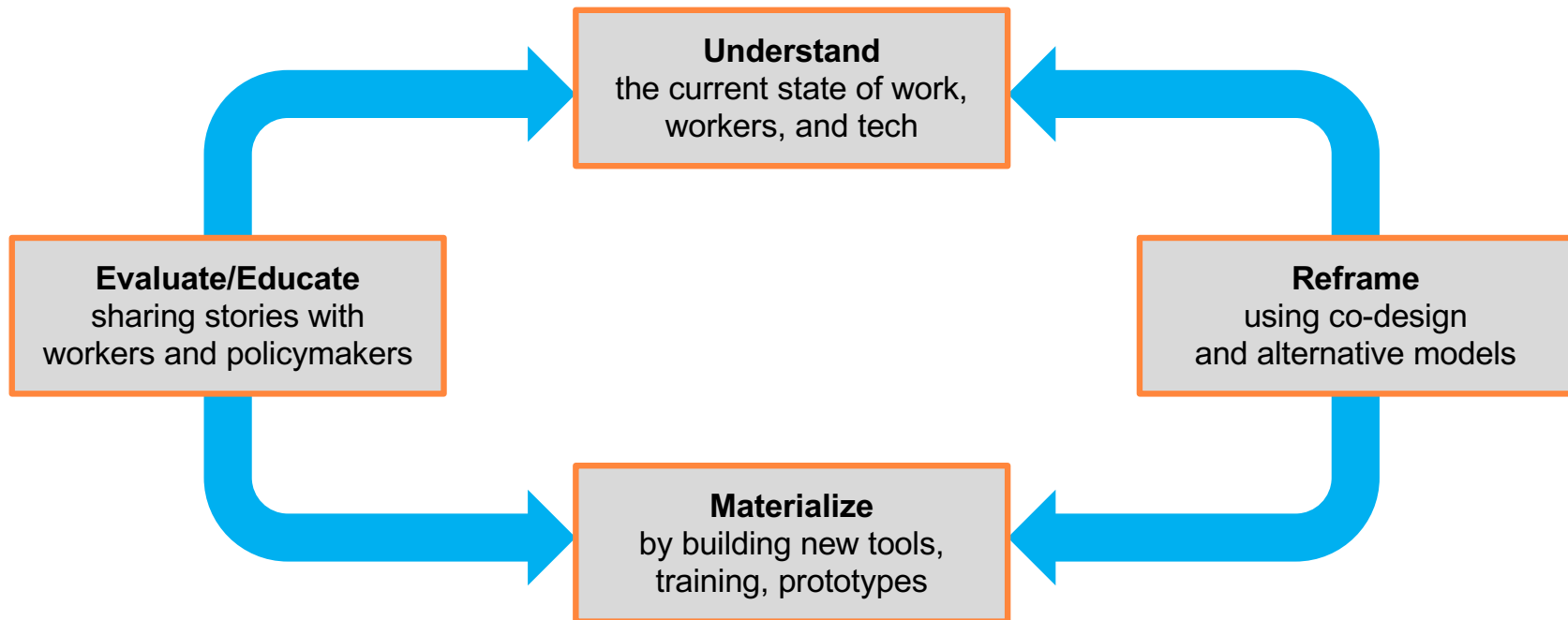
The American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) and Microsoft Corp. on Monday announced the formation of a new partnership to create an open dialogue to discuss how artificial intelligence (AI) must anticipate the needs of workers and include their voices in its development and implementation. This partnership is the first of its kind between a labor organization and a technology company to focus on AI and will

Insights from worker-centered design research have informed broader efforts to ensure workers have a voice in the development, deployment, and governance of AI, including the *AFL-CIO's Workers First Initiative on AI* and the *AFL-CIO–Microsoft partnership* on the future of work.

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A process for worker-centered tech design



Takeaways

- Workplace technologies are shaped by decisions about design, implementation, and governance.
- Workers possess critical knowledge about how technologies affect work, and can identify problems, tradeoffs, and alternatives.
- Worker participation can influence technology design, workplace practices, and collective bargaining outcomes.
- Worker-centered design, collective bargaining, and AI governance are complementary approaches for ensuring technology serves both workers and organizations.



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