NELP NATIONAL EMPLOYMENT LAW PROJECT

When 'Bossware' Manages Workers:
A Policy Agenda to Stop Digital Surveillance and Automated-Decision-System Abuses

By Irene Tung, Paul Sonn, Maya Pinto, Sally Dworack-Fisher, and Josh Boxerman

Appendix 1: Increased Employer Powers with Bossware

Employer Objectives	Increased Employer Powers with Bossware	Harms to Workers
Facilitating ability to evaluate, reward, and discipline workers, and extract more and faster labor	• Automatically flag infractions that would likely not have been picked up by human managers • Track workers' time in shorter increments • Track workers' body movements, location, voice, facial expression, heart rate, and other measures continuously • Automate aggregation of minor infractions for discipline • Amass and easily analyze and process large quantities of data including continuous video and audio recordings of workers • Real-time performance-based ranking of workers	• Harmful disciplinary practices and job precarity (e.g., more frequent discipline, shifting balance of power towards employers, information asymmetry, loss of autonomy) • Loss of autonomy and deskilling of jobs (e.g., more prescriptive and rigid work directions and mandates enforced by bossware) • Unhealthy and dangerous conditions (e.g., increasing risk of physical injury, exhaustion, and mental stress) • Exploitative pay practices (e.g., requiring more work for the same pay) • Suppression of worker organizing and collective bargaining
Masking control by facilitating independent contractor misclassification and hiding joint employment relationships	• Surveil and closely dictate work demands to workers through their personal devices while denying employment relationships • Combine close surveillance with subcontracting to maintain a highly controlled workforce	• Misclassification and work fissuring (e.g., denial of employment and labor protections and denial of promised "flexibility") • Exploitative pay practices (e.g., wage theft from misclassification)

	with the option of instantaneously severing any business relationships in the event that workers organize	• Suppression of worker organizing and collective bargaining (e.g., terminating contracts with subcontractors that become unionized) • Barriers to accessing social insurance and work-related benefits • Discrimination and systemic inequity
Preventing unionization	• Use algorithms, automated decision systems, and surveillance data that are opaque to workers to mask retaliation against workers who organize or speak up • Use surveillance data to identify and track worker organizing activity	• Suppression of worker organizing and collective bargaining
Minimizing pay	• Individualize pay based on a workers' particular attributes or individual characteristics rather than tasks involved • Facilitate bidding on pay rates between individual workers in a single workplace • Facilitate "rounding down" or shaving off of time from recorded work hours to reduce pay	• Exploitative pay practices (e.g., wage theft from misclassification, forced bidding that drives pay down for whole groups of workers, paying less than minimum wage)
Automating staffing decisions and task assignments to minimize labor costs	• Automate task allocation • Automate reduction of hours during off-peak times • Facilitate access to surplus labor pool during peak times by replacing permanent employees with "gig" workers • Facilitate culling of workers during off-peak times • Pay by task and piecework instead of by time measured in	• Harmful disciplinary practices and job precarity (e.g., unfair firings and deactivations) • Loss of autonomy and deskilling of jobs • Misclassification and work fissuring • Exploitative pay practices (e.g., lower earnings, wage theft, reduced labor share of profits,

	• shifts, reducing need to pay workers for time in between tasks • Deskill and deconstruct work into tasks and rebundle tasks in a way that removes worker discretion, trims labor costs, and facilitates easy replacement of workers, who can be treated as interchangeable "cogs"	increase in unpaid work time, work intensification) • Loss of autonomy and deskilling of jobs (e.g., more mentally draining work to correct mistakes made by digital technologies, reduction in the value of workers' expertise) • Suppression of worker organizing (e.g., unpredictable scheduling and precarity that stymies worker organizing)
Reduce numbers of front-line supervisors and streamline decision-making for upper management	• Rapid, real-time processing and synthesis of large volumes of opaque data • Automate or partially automate decisions on discipline, firings, promotions, pay, schedules, task allocation	• Harmful disciplinary practices and job precarity (e.g., lack of transparency, unfair or bad decisions with little recourse, fear of firings and deactivations) • Loss of autonomy and deskilling of jobs