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Exploring the Impacts of Algorithmic Control in Gig Work: Learned Helplessness as an explanatory mechanism

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Abstract:

Digital platforms are increasingly incorporating algorithmic management of workers. The algorithmic control practices often oversee aspects like task allocation, performance review, incentivization and penalties. However, both research and media have reported various negative impacts that workers face due to these algorithmic management practices. These algorithmic systems are often opaque, black-box systems which workers find difficult to make sense of. There have been reports of work intensification, surveillance-related stress, and safety risks experienced by the workers in such systems. This paper explores the psychological mechanism behind these negative impacts of algorithmic management, using the lens of learned helplessness theory. Learned helplessness is a cognitive state that occurs when their actions do not predictably influence outcomes, causes are ambiguous, and escape or corrective routes are ineffective. Algorithmic management environments owing to their opaque nature, exhibit key characteristics that promote learned helplessness. We further propose that the structural substitutability of workers will act as a boundary condition to define the levels of helplessness experienced by the gig workers. The framework proposed in the article defines a 2x2 matrix of learned helplessness levels considering the levels of algorithmic management intensity and worker substitutability. Application of this framework can help platforms and regulating bodies define design features and policies to safeguard the motivation and well-being of gig workers.

Keywords: Algorithmic Management, Gig-work, Learned Helplessness, worker Substitutability

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