Digital Bosses: The Role of Algorithms in the Modern Workplace

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Acknowledgements

The authors thank Mohan Mani, Visiting Fellow, Center for Labour Studies, National Law School of India University (NLSIU) Bengaluru for his thoughtful comments and feedback on this paper. We also thank Rajiv Kumar and Britta Petersen of the Rosa-Luxemburg-Stiftung (RLS) for his insights and support in bringing this report to fruition

This report was funded by Rosa-Luxemburg-Stiftung (RLS).

Proofing: Susan Sreemala

Cover & Report Design: Harikrishnan B

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Introduction

The debate around algorithmic management at the workplace has intensified in the years succeeding the pandemic. Buoyed by a need to control a workforce operating remotely, companies started to introduce algorithms as a method of remotely controlling, monitoring and supervising workers.[1]

Several definitions have been offered for the term 'algorithmic management', by academicians, industry reports, and multilateral organizations.[2] What runs through all of them is the centrality of worker data to feed into algorithmic decision-making, which is intended to optimize worker efficiency and productivity. In the present, the proliferation and penetration of algorithms at work are wide and deep. In value chains across sectors, platforms and data are being used to manage labor, with differing levels of automation. Ride-hailing through platforms is now nearly ubiquitous. In digital placement agencies, resumes are filtered through algorithms. Amazon warehouse workers all over the world are fighting against the company's constant and intrusive surveillance to maximize worker productivity and monitor staff in public facilities.[3] These are not uniform phenomena but are grounded in the realities of their deployment. In this way, algorithms are creating new realities of work and working conditions.

The rapid expansion of algorithmic management in the workplace is in line with capital's imperative to boost productivity and profit, by closely monitoring labor. However, algorithmic management today is reshaping the power asymmetries between labor and capital in new ways. Automated decision-making occurs on the back of data generated by worker activity whose intelligence value is then accumulated by platform companies.Under algorithmic capitalism[4] worker data emerges as the site of value, raising ethical and political questions for the relationship between labor and capital.

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1 Dupuis, M. (2023). Algorithmic management and control at work in the manufacturing sector: Workplace regime, union power, and shopfloor conflict over digitisation. New Technology, Work and Employment, Special Issue Paper. https://onlinelibrary.wiley.com/doi/10.1111/ntwe.12298

2 Edlich, A., Ip, F., & Whiteman, R. (2018). How bots, algorithms, and artificial intelligence are reshaping the future of corporate support functions. McKinsey. https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/how-bots-algorithms-and-artificial-intelligence-are-reshaping-the-future-of-corporate-support-functions;

Baiocco, S., Fernandez-Macias, E., Rani, U., & Pesole, A. (2022). The algorithmic management of work and its implications in different contexts. Background Paper Series of the Joint EU-ILO Project "Building Partnerships on the Future of Work". https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/documents/publication/wcms_849220.pdf;

Jarrahi, M.H., Newlands, G., Sutherland., Lee, M.K., Wolf, C.T., Kinder, E., & Sutherland, W. (2021). Algorithmic management in a work context. Big Data & Society, 8(2). https://journals.sagepub.com/doi/abs/10.1177/20539517211020332

3 Algorithm Watch. (2023). Algorithmic transparency and accountability in the world of work: A mapping study into the activities of trade unions. Algorithm Watch. https://algorithmwatch.org/en/wp-content/uploads/2023/02/2023_AlgorithmWatch_ITUC_Report.pdf;
Rani, U., Pesole, A., & Ignacio, G.V. (2024). Algorithmic Management practices in regular workplaces: case studies in logistics and healthcare. Publications Office of the European Union. https://www.bollettinoadapt.it/wp-content/uploads/2024/02/wcms_913016.pdf

4 Mittelman, J. H. (2022). The power of algorithmic capitalism. International Critical Thought, 12(3). https://www.tandfonline.com/doi/full/10.1080/21598282.2022.2070858

Our behavior and activity are reduced to data points whose value is readily available for corporations to siphon. In this regard, the role that algorithms play in digital labor platforms in particular–where labor demand and supply are matched in real time through platform and data infrastructures–represents the unique perils of algorithmic capitalism. The data value accumulated by capital through labor platforms is not abstract. Research shows that workers and communities lose 1.9 billion pounds in the UK in wage theft and costs.[5] It is generated on the backs of workers' activities and labor. In order to extract more value, the control platforms exert over workers becomes more exacting. Insidiously, it is this very data that is at the heart of the algorithms determining increasingly deteriorating working conditions.

In recent years, literature and regulation on this issue have focused on issues of algorithmic transparency and auditability to bring back human oversight to the workplace, in some measure. However, the limitation of these approaches is that it creates a new regime of accountability for algorithmic decisions at the workplace, rather than seeing them as an extension of the power capital is exercising over labor. Not all decisions in a digital labor platform are made through algorithms or are automated. For instance, food delivery platforms have an entire workforce of 'contractors' who monitor the deliveries in real-time, provide on-demand customer service, and in some cases manually intervene. Thus, while necessary, it is not adequate to simply open up algorithmic decisions to scrutiny and redressal. It is critical to locate algorithmic decisions in how workers' granular material realities are completely altered at will, on a daily basis. The interrogation is thus not directed at singular decisions, but at a series of decisions, all with ripple effects, that reveal something about the logic of the algorithm—and by extension, the logic of platform capitalism.

In this report we investigate how algorithms are reshaping material conditions of work on a daily basis with unpredictable, imprecise, and ultimately precarious outcomes for workers that vary across platforms. In doing so, we aim to reveal the logic that drives algorithmic decisions and the interests it serves.

Research Methodology

This study employs qualitative methodologies to investigate algorithmic management and understand how workers' realities and working conditions are controlled by it. Our research draws upon two key sources of data: secondary literature analysis and semi-structured interviews with twenty odd workers in four sectors, namely, ride-hailing, food delivery, urban services, and warehousing.

By choosing workers from a range of sectors that have been captured by platformization, our aim is to demonstrate how despite the non-uniform ways in which algorithms fragment worker experiences and working conditions, the underlying logic governing algorithms across all sectors is that of capital and profit at the cost of worker rights.

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5 Worker Info Exchange. (2024). Dying for Data: How the gig economy public data deficit conceals £1.9 billion in wage theft, runaway carbon emissions and a health & safety catastrophe. Worker Info Exchange. https://www.workerinfoexchange.org/public-data-sharing-report

The first component of this research involved a comprehensive review of existing literature on algorithmic management and its implications for the relationship between labor and capital. This secondary data includes peer-reviewed journal articles, books, policy reports, and media reporting. The literature review focused on several key themes: the role of algorithms in managing work, the forms of control and surveillance employed by platforms, the implications for worker autonomy, and the impact of algorithms on job quality, income stability, and mental well-being. This step helps to contextualize the study and identify gaps in existing research, providing a theoretical foundation for the subsequent analysis of primary data.

A purposive sampling strategy was used to identify participants who are actively engaged in digital labor platforms, with a focus on those working in ride-hailing, food delivery, urban services, and warehousing. Using semi-structured interviews with workers in the selected sectors, we were able to draw out insights on workers' perceptions of fairness, autonomy, and transparency in the algorithmic processes that govern their work. Additionally, the interviews explored the emotional and psychological impact of algorithmic oversight, such as stress, burnout, or job satisfaction.

Workers' Material Experiences of Navigating the Algorithm

1. Simplistic contracts obscure the reality of the extent of algorithmic control over workers

Platform work, moving away from traditional employment, is largely contractual and task-oriented in nature. The working relationship between the worker and aggregator, including rights and corresponding duties, are established in the contract the worker signs when they are onboarded onto the platform.

In platform work, this contract typically takes the form of a simple 'click to agree' checkbox, removing the space for the worker to negotiate the terms of their work conditions. Contracts seldom contain material details about working conditions, for instance, the number of permitted cancellations, maximum working hours, data rights etc., leaving room for enforceable rights and duties. The practical conditions of workers reflect a reality far removed from these principles. A delivery worker said that neither Zomato nor Swiggy engaged personnel to explain the terms and conditions in the contract to their workers. Access to contracts was an issue consistent across platforms.

With delivery platforms like Zomato, a worker stated that they did not have access to the physical contract they had signed seven years ago. More worryingly, reports also highlight that Urban Company workers do not have access to their contracts while being on- boarded.[6]

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6 Ram, N. (2023). Future of Work or 21st Century Oppressed Labour. Centre for Internet and Society. https://cis- india.org/raw/future-work-21st-century-labour.pdf

For instance, Suresh, an Urban Company worker said:

> There is no agreement or contract between employee and the organization. If tomorrow their payment stops, who is responsible?

Meanwhile, Amazon warehouse workers are granted access to their contracts at the discretion of their Human Resource (HR) representatives. Ganesh, an Amazon warehouse worker said:

> Contracts are available only on request. Even then, it may take weeks or months for the contract to be uploaded. Sometimes, it is not uploaded at all.

A fair contract must also include a mechanism to provide workers sufficient notice in case of a change in the terms and conditions. Not only are workers not permitted to meaningfully participate in these decision-making processes, but they are often unaware of changes to their working conditions. Urban Company workers have highlighted that verbal contracts are often revoked without notice and without the consent of the workers.[7]

Workers across most platforms, including Amazon warehouse workers, have to submit their Aadhaar IDs to onboard platforms. This is, more often than not, a mandatory requirement. An Urban Company worker pointed out that the platform stores sensitive personal data (from Aadhaar and PAN cards) but provides little to no guarantee of safety and privacy.

2. Algorithms gamify access to social security, insurance, and benefits

Barring Rajasthan, which enacted a state-wide legislation in 2023 extending social security to gig and platform workers, most workers in other states have no access statutorily to social security protections. Though several platforms offer their workers access to various platform-specific entitlements including up-skilling programs and more prominently, health insurance, workers describe that these benefits are very often not uniform and similar to other aspects of their jobs, subject to the rigors of algorithmic management.

Swiggy's health insurance policy is an interesting case in point. Swiggy offers the workers and their families on the platform an insurance policy which as per their Initial Public Offering (IPO) prospectus covers accident, hospitalization, illness, maternity cover, on demand ambulance service, paid recovery time-off, mobile insurance etc.[8]

Swiggy workers from Belgaum revealed that Swiggy's insurance policy advertised with its plethora of benefits is not available in its entirety to Swiggy's complete fleet of drivers. Instead access to the insurance policy is tied to the category workers find themselves slotted into, during their time on the application.

7 Ibid.

8 Swiggy Initial Public Offering. (2024). Swiggy Initial Public Offering. Page 212. Securities and Exchange Board of India. https://www.sebi.gov.in/filings/public-issues/nov- 2024/swiggy-limited-prospectus_88320.html

They explained that Swiggy categorizes workers against three categories–gold, silver, and bronze–with the gold and bronze categories being the most privileged and lowest category on the application, respectively. Workers shared that the extent of benefits available to each of them is directly contingent on the category they find themselves slotted into in the application. A worker in the gold category, for instance, has access to expansive insurance cover for themselves and their families, whereas, a worker in the silver category is not eligible for family insurance. On the other hand, a worker who falls in the bronze category is entitled only to insurance coverage for accidents.

The slotting of workers into this three-tier categorization is highly arbitrary, as per the workers. While workers testified to being broadly aware that their rankings are dependent on the ratings they receive, workers shared that they had little knowledge on the specifics of how the ratings impact their rankings within the tiered system. Simply put, workers were not aware of the leverage each specific rating held towards deciding their ranking. Workers also explained that they are mostly unaware of the insurance policy applicable to them and only discover its specifics when directly faced with an incident.

The dynamic insurance model of Swiggy was first brought into sharp focus through a report by Rest of World in April of 2024, which surveyed over 40 Swiggy workers across Delhi, Jaipur, Hyderabad, and Bengaluru. As per the report, Swiggy's ranking architecture was determined by a point system where workers needed to score 70 points and more per week to maintain their gold ranking, between 50-70 points for a silver ranking, and received a bronze ranking if their points fell under 50, weekly. Close to 65% of the 40 workers interviewed found this model unsatisfactory, and wanted a uniform system of insurance applicable to all.[9]

Interestingly, our field work also discovered that the tiered system of insurance, with differentiated insurance cover for different groups of workers, was only applicable to Swiggy workers we interviewed at Belgaum. Swiggy workers in Bengaluru on the other hand reported having a uniform insurance policy applicable to all irrespective of their ranking.

3. Algorithmic gamification increases risks of occupational injury and exacerbates issues of physical and psychological well-being

Algorithmic management is often unable to account for the material realities of working conditions which are messy, imprecise, and unpredictable—all contrary to what machine learning demands. For instance, the algorithm allocates 'peak work time hours' where workers are often not permitted breaks. During a heat wave this could have long-lasting consequences on a worker's physical and mental health.

Amazon warehouse workers pointed out that their managers often keep the air conditioning off on the warehouse floor but turn it on in their offices. Heat stress is popularly calculated via a 'Wet Bulb Globe Temperature (WGBT)' formula.

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9 Bansal, V. (2024). This delivery app takes away health insurance when workers don't meet quota. Rest of World. https://restofworld.org/2024/swiggy-health-insurance-quotas/

Moderate heat stress is triggered at 30.5 °C (WBGT) and high heat stress at 32 °C (WBGT). High heat stress could lead to workers suffering a heat stroke, exhaustion, fainting or worse. For instance, a 2024 survey by Telangana Gig and Platform Workers Union and HeatWatch found that 52% of the surveyed workers suffered heat exhaustion, while 30% suffered heat strokes. Additionally, of the 19 female workers surveyed, 13 reported a worsening of menstrual cramps, and 4 experience increased Urinary Tract Infections (UTI) in extreme heat.[10] To counter this, the Indian Labour Organization (ILO) has recommended that workers require 30 minutes of rest for every 30 minutes of work at the 'moderate heat level'.[11]

Amazon warehouse workers shared that they are expected to keep working even at times of intense heat and are even penalized if they step away from their work stations to take a break or visit the sick room. The fear of having their IDs temporarily or permanently blocked ensures that workers, for the most part, stay rooted to their stations. For Swiggy and Zomato workers, reports reveal that consumers often exacerbate poor working conditions by expecting workers to climb up three-four flights of stairs in scorching heat. They also often employ discriminatory practices, such as asking workers to use 'service lifts' to minimize interaction with other residents.[12] The psychological stress and frustration emerging from these practices leave the workers closer to burn out.

Algorithmic management also brings with it work intensification which has a significant impact on working conditions. First and foremost, it leaves workers with little time for family or leisure. This not only impacts their personal lives significantly but also has financial implications. Secondly, when combined with productivity enhancement measures like trackers, ratings etc., workers are more likely to intensify their pace of work and approach burnout. Several studies have documented the deterioration in workers' physical and mental health conditions–ulcers, cardiovascular disorders, stress–as a direct result of data-driven technologies, including algorithmic management.[13]

4. Algorithms automatically terminate workers from the platform, arbitrarily depriving them of their source of income

A popular remedy guaranteed to workers under different labor law statutes worldwide are protections against unfair and illegal terminations as well as common disciplinary practices at the workplace including transfer etc. Many of these remedies were forged as a bulwark against unrestrained tyranny of bosses and managers at the workplace and were enacted in an era when managerial authority operated through direct, human-driven interactions.[14]

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10 Telangana Gig and Platform Workers Union (TGPWU) & Heatwatch. (2024). Impact of Extreme Hat on Gig Workers: A survey report. Telangana Gig and Platform Workers Union. https://tgpwu.org/2024/08/17/impact-of-extreme-heat-on-gig-workers-a-survey- report/

11 Judd, J., Wakamo, B., Evans, C.P., & Kuruvilla, S. (2024). Hot Air: How will fashion adapt to accelerating climate change?. GLI Policy Brief. https://www.ilr.cornell.edu/sites/default/files-d8/2024-12/gli-hot-air-4-december- 2024.pdf

12 Sakunia, S. (2023) A new Indian movie depicts the stress of delivery work. Gig workers say it's not harsh enough. Rest of World. https://restofworld.org/2023/zwigato-review-delivery-drivers-india-kapil-sharma/

13 Bernhardt, A., Kresge, L., & Suleiman, R. (2023). The Data-Driven Workplace and the Case for Worker Technology Rights. ILR Review, 76(1). https://journals.sagepub.com/doi/10.1177/00197939221131558

14 Baiocco, S., Fernandez-Macias, E., Rani, U., & Pesole, A. (2022). The Algorithmic Management of work and its implications in different contexts. Background Paper Series of the Joint EU-ILO Project "Building Partnerships on the Future of Work". https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/documents/publication/wcms_849220.pdf

With many traditional labor practices including termination becoming almost fully automated, many of these remedies have become elusive to several workers. On application-based platforms, termination or disciplining of workers is usually euphemistically referred to as 'deactivation'—a term deliberately coined to appear benign but in actuality is a source of great consternation for workers. Deactivation–which includes both the temporary ID blocking of workers and the permanent removal of workers from the platform–is a popular model of disciplining workers across various platforms and one which holds negative implications for workers' earnings.

Cutting across conversations with workers from different platforms, we found deactivation to predominantly be a product of automated decision-making with very little human intervention. Many workers expressed that the information on deactivation shared with them by platforms was sparse. Workers shared that deactivation is mainly driven by lower ratings and highlighted that while there are other factors–like customer reviews–which can also lead to deactivation, platforms are deliberately vague about these factors, leaving workers in the dark about the terms that govern them. Even when it comes to ratings, workers flagged that they were unaware of the threshold limits that trigger deactivation.

As per Urban Company workers the team spoke with, their work status on the platform is entirely dependent on customer ratings and cancellations, with termination of workers from the application purely contingent on these two factors. They also flagged that while maintaining a five-star rating on the platform is hinged upon shoring up multiple five-star reviews, one bad rating is often all it took for their ratings to plunge.

Suresh, an Urban Company worker, referred to the platforms adopting the rating system for removal of workers as 'cruel', explaining that customers are often extremely vengeful towards workers which is reflected in their ratings. He shared:

> “Sometimes customers book our services for one task, and pressurise us to complete multiple tasks when we are at their homes. If we refuse, they retaliate by giving us bad ratings and raising false claims, and eventually the platform blocks us without giving us a chance to explain.

Mahesh, another Urban Company worker explained that if a worker cancels five times in a month, the workers' profile is deactivated from the application. He shared that unlike customers who are offered a bouquet of choices to pick as reasons for canceling their orders, workers are not extended the same courtesy. He added:

> “Even if I am canceling the order only for the reason that I am ill, Urban Company doesn't still doesn't give me a pass for the cancellation on account of my sickness, the cancellation still counts for the purpose of my termination.

Not being able to find out why their accounts have been deactivated and if the reasons for deactivation are even just and proper was a common refrain for workers not just from Urban Company, but also for Amazon warehouse workers we spoke with.

Asha, an Amazon warehouse worker shared with us:

> They remove workers for no apparent reason. If someone misbehaves, doesn't fulfill targets, the managers simply block our access cards. If we take a holiday for falling ill without notice, our card is block, and we have no recourse

This form of erratic and unpredictable outcomes for workers where they are left with no avenue for relief as a consequence of algorithmic management has been referred to by some commentators as "boss from hell".[15]

While human intervention is frequently disparaged for being arbitrary and whimsical, the "virtues of human discretion, judgement, and agency, which have long been recognised… as vital in overcoming the inevitable imperfection associated with legal rules' are ignored".[16] Though concerns of human fallibility are more or less true, human interventions are to some extent mediated by feelings of empathy, compassion, and mercy which are elements completely absent in digital algorithmic systems that are otherwise embedded with both explicit and implicit biases of the software developer. This supposedly fool proof system effectively shuts out any and all intervention which may be possible in favor of objectification.[17] Algorithmic governance systems can be too rigid and less open-minded, given that it "optimizes previous and current disparities arranged into granular datasets, bringing them to a debatable level of verifiability".[18] It is also the case that legal remedies have developed in myriad ways to confront bias in human decisions but not necessarily computerized algorithmic decisions.[19]

In fact, it has been strongly argued by some, like Professor Philipa Collins, that the very right against unfair dismissal renders automated dismissals unlawful. In short, the argument is that it is impossible to fairly dismiss any worker without human intervention.[20] Establishing that a dismissal is fair generally requires the employer to hold the genuine belief regarding the employee's misconduct and prove that reasonable grounds exist, for such belief. Automated dismissals on the other hand are passed purely based on data sets available; there is no investigation on the bias that undergirds the data or the circumstances which may have been beyond the workers' control.

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15 Duggan, J., Sherman, U., Carbery, R., & McDonnell, A. Algorithmic management and app-work in the gig economy: A research agenda for employment relations and HRM. Human Resource Management Journal, 30(1). https://onlinelibrary.wiley.com/doi/epdf/10.1111/1748-8583.12258

16 Aloisi. A., & De Stefano, V. (2022). Your Boss is An Algorithm: Artificial Intelligence, Platform Work and Labour. Bloomsbury Publishing.

17 Pasquale, F. (2021). The Resilient Fragility of Law. in S Deakin and. C Markou (eds), Is Law Computable? Critical Perspectives on Law and Artificial Intelligence. Bloomsbury Publishing.

18 Aloisi. A., & De Stefano, V. (2022). Your Boss is An Algorithm: Artifical Intelligence, Platform Work and Labour. Bloomsbury Publishing. Brooklyn Law School, Legal Studies Paper No. 667

19 Ibid.

20 Collins, P. (2021). Automated Dismissal Decisions, Data Protection and the Law of Unfair Dismissal. UK Labour Law Blog. https://uklabourlawblog.com/2021/10/19/automated-dismissal-decisions-data-protection- and-the-law-of-unfair-dismissal-by-philippa-collins/

The principle of '*audi alteram partem*' (let the other side speak) is absent in such cases. Automated decision-making does not give workers the right to contest the allegations leveled against them with personalized factors.[21]

5. Platforms do not provide workers with a feedback channel or training to understand the workings of the algorithm

The absence of robust training protocols for the use of the application contributes to the opacity of the algorithm widening the information asymmetry faced by the worker. Zomato workers shared that while there are videos on how to use the application, the videos are not of much use since they often display options that their application does not have, leaving the workers confused.

On the other hand, Amazon warehouse workers pointed out that they are provided a brief orientation when they join the warehouse. Rules of the department, use of the application, and safety measures are all explained over two days. However, workers often have little information on how the algorithm works and how they can improve their working conditions. The platform is designed to deprioritize the worker and this is illustrated in the absence of a feedback mechanism.

Urban Company workers have also emphasized the lack of a proper feedback mechanism and the demoralization it causes. They expressed frustration over being unable to understand the reasons behind negative client reviews and not being given the opportunity to learn and grow from these experiences. Suresh, an Urban Company worker shared:

> “ They simply show us our bad rating without offering any insight into our mistakes or guidance on how to improve. What's the point of such a system if we're not given a chance to learn and grow? To the company, we're replaceable—they can easily hire new drivers. There's no effort to invest in our development or improvement.

A feedback channel would allow workers to improve their ratings, contest false claims made by clients, and importantly, have access to "more interpersonal and empathetic aspects of people management".[22] The absence of a boss or manager who advocates for workers' needs and fosters a balanced working relationship with scope for improvement also has the potential to erode employees' trust and confidence in themselves, diminishing their sense of well-being—as illustrated in the example of the Urban Company worker.[23]

G. Algorithms can be manipulated by humans and platforms to disadvantage workers and privilege platform capital

The cornerstone of algorithmic management is often assumed to be the complete removal of human bosses or intervention in worker-related issues–an ostensibly foolproof system devoid of human bias–where neutrality and objectivity are paramount.

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21 Ibid.

22 Duggan, J., Sherman, U., Carbery, R., & McDonnell, A. Algorithmic management and app-work in the gig economy: A research agenda for employment relations and HRM. Human Resource Management Journal, 30(1). https://onlinelibrary.wiley.com/doi/epdf/10.1111/1748-8583.12258

23 Ibid.

Yet, in practice, algorithms are far less independent of human interference than they are assumed or portrayed to be. Workers described a range of instances where algorithms are subject to human manipulation across various platforms. Workers shared examples of company managers frequently intervening in pre-fixed algorithmic outcomes, occasionally to favor the worker, but more commonly to their disadvantage. Mahesh, a carpenter working for Urban Company in Hyderabad expressed:

> If a worker cancels one order in a month, the Urban Company application makes us watch a training video. If a second cancellation happens in the same month, we're made to watch another video. A third cancellation triggers a warning and a fourth results in the application stopping our access to orders. By the fifth cancellation, the worker is deboarded entirely. Because of this, many workers go offline after three cancellations, fearing deboarding. But when we do, we get calls from Urban Company managers asking why we've gone offline and promising to remove the cancellation strikes if we come back online. Sometimes, they keep their word and we're safe. But many times, my friends have trusted these promises, went back online and were deboarded anyway.

Zomato workers shared insights into how the platform's revenue-driven priorities shape its policies and enforcement practices. They claimed that whenever the algorithm flags issues that could hinder revenue generation, the company either intervenes manually to override the system or disregards the findings entirely; even if these issues highlight violations by workers so long as it contributes to higher earnings for the platform.

The workers illustrated their concerns with an example: the rising prevalence of fake IDs and unauthorized drivers on the Zomato platform. Zomato has a formal policy requiring delivery partners to provide authentic identification and prohibits drivers from using vehicle numbers different from those registered on the application. This policy is designed to maintain accountability and ensure compliance. Additionally, the company enforces daily photo-based facial recognition to verify drivers' identities and prevent multiple individuals from sharing a single account.

Despite these rules, workers alleged that the enforcement of the verification system is inconsistent and subject to the platform's discretion. They claimed that groups of four-five individuals, often share a single registered ID to perform deliveries— contrary to company policy. This practice allows one account to remain active 24/7, boosting order volumes and rankings in the platform's system. In contrast, workers who strictly adhere to Zomato's rules reported receiving fewer orders and lower ratings as a result.

Workers argued that Zomato is likely aware of these violations, as it would be implausible for the application to assume that a single worker could remain logged in and deliver orders continuously for 24 hours. Such activity should ideally trigger an investigation into the accounts involved.

They also pointed out that the photo verification system put in place by Zomato likely captures discrepancies, such as different individuals using the same ID, but Zomato has taken no action. The workers reasoned that this inaction stems from the platform benefiting from the increased order volume while incurring fewer expenses, such as onboarding additional drivers.

Workers at Amazon warehouses shared experiences of how the unaccountable algorithmic process can be, and how this color-blind process is often manipulated to work to the worker's detriment. Workers shared that it is often the case that managers log in to the application using the workers' ID and any mistakes committed by the manager while logged in is registered as the mistake of the worker. It was explained that managers generally log in when the workload is excessive and the worker is struggling to meet their targets. The managers overseeing shipments either remain unaware or deliberately ignore the fact that someone else is logged in under the worker's ID leading to the card being blocked.

7. Algorithms do not allow workers to contest the decisions or provide speedy redressal for decisions that violate worker rights

For companies like Swiggy, Zomato, Amazon and Urban Company whose central goal is market capture, ensuring customer satisfaction and positive customer experience is paramount.[24] To achieve this, these platforms dedicate a significant portion of their revenue to maintaining efficient grievance redressal systems for customers—ensuring immediate turnaround time, human involvement in problem solving, and streamlined processes. On Swiggy and Zomato, customers can raise grievances directly through the application, initially interacting with automated options before connecting to round-the-clock customer care representatives. Most complaints are resolved within four-five minutes of being reported.

However, the same platforms that offer robust complaint systems for customers have a starkly different and underdeveloped framework for addressing grievances raised by their workers. Delivery workers on Swiggy and Zomato lack the expedited grievance redressal available to customers, as well as consistent access to human support. Instead, their access to these systems is influenced by hierarchical mechanisms tied to performance rankings.

For Zomato workers, their access to grievance redressal is contingent on their rankings. As discussed previously in the case of Swiggy, workers are able to avail benefits from Zomato based on their rankings under diamond, silver, bronze, and blue categories. Only workers who fall within the diamond and silver category have access to priority support. Having priority access provides workers in these categories quicker resolution as opposed to workers that slip to the bronze and blue categories.

Zomato workers also explained that they have no channel to contest either the ratings they receive from a customer or the other parameters the platform uses to evaluate and assign their ranking.

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24 Liu, T., Yang, M.M., Zhu, J., & Wang, Y. (2024). Dark side of algorithmic management on platform workers behaviors: A mixed method study. Human Resource Management Journal, 63(3).

Suresh, a Zomato worker shared:

> When there's heavy traffic, even if I follow the route suggested by the application and pick up the order on time, I might still reach the customer late. The application marks it as a late delivery, which lowers my rating. This affects the number of orders I receive and other benefits I'm entitled to. There's no way for me to contest this or explain my side of the story.

Workers also shared that there was no human contact to address grievances. Two Zomato workers in Bengaluru explained that in the seven years they worked at Zomato, they have not once met a manager or known the name and contact details of a manager they could reach out to.

Amazon warehouse workers described two avenues of grievance redressal: one, through an application called MyVoice and another by writing their grievances on a white board. Both avenues were of no use, as per the workers. Workers shared that complaints raised on the MyVoice application generally met with no resolution. Kanchana, an Amazon warehouse worker said:

> If I log in a grievance on the application, I receive no reply for months.

She added that on several occasions when a worker informs the company that she is ill and needs time through the application, they receive no response but are simply blocked. Once blocked, the workers lose access to the application to contest it. Naresh, another Amazon warehouse worker in the same facility said to us:

> Redressal in the factory is that either the sickness ends or the patient dies.

Fear of being removed from work was a major element constraining Amazon workers from raising grievances even when the grievances are pressing. They shared that once a grievance is logged by a worker, it has normally been company practice for the worker to be removed without any notice or intimation.

8. Algorithms deny workers fair wages and violate the principle of equal pay for equal work by gamifying the work environment and its rewards

Fair wage is a non-negotiable factor to secure decent working conditions for workers. A study by the University of Pennsylvania highlighted that delivery workers' earnings amount to less than Rs. 10,000 a month, after all deductions associated with work.[25] The Fairwork India Report 2024 also highlighted that none of the 11 evaluated platforms were able to secure workers a local living wage after work-related costs.[26]

25 University of Pennsylvania, People's Association in Grassroots Action and Movement (2024). Working and Living Conditions of App- Based Gig Workers in India. Telangana Gig and Platform Workers Union. https://tgpwu.org/wp- content/uploads/2024/03/Report-Final-Print-1.pdf

26 Fairwork. (2024). Fairwork India Ratings 2024. Fairwork. https://fair.work/wp- content/uploads/sites/17/2024/10/Fairwork_India_Report_2024.pdf

For instance, a Bengaluru-based cleaning worker at Urban Company reportedly earns roughly Rs. 152/day after costs.[27] Wages are yet another aspect of the working conditions that are determined by algorithms. However, the manner of determination of wages remains largely opaque. Algorithmic wage calculation relies on a multitude of factors such as the day of the week, time of day, distance travelled, individual behavior, and demand and supply (surge pricing). The ever-changing formula and opacity associated with the same offer workers little predictability by way of earnings.[28] The growing information asymmetry allows the algorithm to "personalize and differentiate wages for workers in ways unknown to them, paying them to behave in ways that the firm desires", creating fertile ground for algorithmic wage discrimination.[29]

This is illustrated in the manner in which incentives are allocated through the algorithm. Incentives are offered on the basis of worker ratings and geographical location, among other factors. A Zomato delivery worker highlighted that there is no incentive system in Belgaum and that incentives are only given in areas with high order rates. Incentives are also often offered to workers with high ratings, removing a pathway for workers with lower ratings to improve their rating. For instance, if a worker is close to achieving their target, then the algorithm may stop allocating them work.[30] Similarly, a Zomato delivery worker highlighted that the application provides newer workers more attractive incentives. He said:

> If a worker works regularly and logs in, they get only Rs. 450. However, if the worker logs off and rejoins the application in three months, they get Rs. 700.

Incentives are also often conditional in nature. An Uber driver pointed out that they must take six trips only between 5 PM and 9 PM to be eligible for an incentive of Rs. 50. Workers are often frustrated because they are unable to meet the prerequisites to avail of a bonus in spite of working long hours.

The algorithm also deploys gamification and psychological levers to influence worker behavior.[31] Workers are often allocated deliveries far away from their homes towards the end of their working hours, resulting in overtime. A few Zomato workers highlighted these concerns:

> There is an option on the application to get orders on their route back home. However, this option is never honored... when [they] choose this option, the application will assign orders to them that are far away from their house. They can't reject the order because it will impact their incentive, and as a result, they end up having to work for an extra hour.

27 Ram, N. (2023). Future of Work or 21st Century Oppressed Labour. Centre for Internet and Society. https://cis- india.org/raw/future-work-21st-century-labour.pdf

28 Dubal, V. (2023). On Algorithmic Wage Discrimination. Columbia Law Review, 123(7). https://www.jstor.org/stable/27264954

29 Ibid.

30 Rosenblat, A., & Stark, L. (2017). Algorithmic Labour and Information Asymmetries: A Case Study of Uber Drivers. International Jounral of Communication, 10(27). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2686227

31 Mateescu, A., & Nguyen, A. (2019). Algorithmic Management in the Workplace. Data & Society. https://datasociety.net/wp-content/uploads/2019/02/DS_Algorithmic_Management_Explainer.pdf

Additionally, workers can either log on to Swiggy or Zomato at the same time. A delivery worker highlighted:

> If they receive orders on Swiggy and Zomato and reject an order more than once, their incentive may come down and ID may be blocked.

In addition to the unpredictable monthly income, workers are also subjected to arbitrary deductions in payments. Faced with increasing travel costs, last-minute cancellations, auto-assignment of work and the pressure to maintain high ratings has reduced workers' monthly earnings.[32] An Urban Company union representative highlighted that:

> With auto acceptance, it is difficult to take breaks even if the earnings [for the other] might be more ... [therefore] women who have families and responsibilities avoid such orders and as a result, their earnings fall.

The introduction of a rate card–rates for delivery based on locality–has only exacerbated these concerns. Rates are arbitrarily revised and workers remain in the dark about when and why these revisions take place.

Additionally, some are also unaware of refunds they can claim against deductions. A union representative highlighted that:

> The Tax Deducted at Source (TDS) is a big concern that unions want to raise. Workers are not aware of the process to claim their TDS refund and there is no mechanism for automated refunds if their income is less than 5 lacs. Workers are habituated to this deduction.

The logic and opacity of the algorithms, therefore, allows for workers operate in structures that offer them neither security nor stability, but ensure profitability for the aggregators.[33] This is seen not only in the practice of wage discrimination, but also the manner in which the algorithmified workplace is governed.

9. Algorithms exercise total control over how and what tasks workers access on the platform

A recent transformation that has occurred in work allocation across platform work, especially on food delivery platforms in India has been the introduction of the 'slot system'—referred to as 'GIGS' by platform companies.[34]

32 Paliath, S. (2024). Why a Robust Gig Work Legislation Will Help Women Workers. The Wire. https://thewire.in/labour/why-a-robust-gig-work-legislation-will-help-women-workers

33 Dubal, V. (2023). On Algorithmic Wage Discrimination. Columbia Law Review, 123(7). https://www.jstor.org/stable/27264954

34 Fairwork. (2024). Fairwork India Ratings 2024. Fairwork. https://fair.work/wp- content/uploads/sites/17/2024/10/Fairwork_India_Report_2024.pdf

This system, contrary to the earlier system which allowed workers to log in and log off as they preferred, requires workers to plan their schedule and book slots for work in advance.[35] The ultimate goal of this model is to ensure round the clock availability of workers especially during peak hours such as lunch and dinner.

Platform companies claim that the 'slots' system helps workers plan their schedules ahead of time and work more efficiently. However, workers' experiences narrate a different story. Many Zomato and Swiggy workers the team spoke with expressed reservations about the slot system, especially finding issue with the manner of slot allocation to workers which is algorithmically determined.

Workers shared that not all workers have free and equal access to book slots in advance on the platform. A worker's ability to book a slot on the application is contingent on the category or ranking they fall under. These work slots are highly coveted since workers are able to earn higher earnings during this period leaving them to scramble for a place on these slots. Being able to book a slot therefore is based on how quickly the worker is able to bid for it and register on the application. On Zomato, workers with different rankings are hierarchically given options to choose slots. For instance, workers with diamond ranking are able to book work slots four days in advance; those in the silver category three days in advance; those in bronze category two days in advance and lastly those in the blue category, a single day. As noted earlier, workers' rankings are based on ratings and reviews by customers and other performance metrics including the speed of delivery which is measured through in-built navigation technologies and cancellations. These measures ultimately end up as indicators that determine workers' access to deliveries or rides on the platform.

Workers also explained that slot requirements are very strict, with deviations inviting harsh penalties from the platform. Workers shared, for example, that those who fail to make their slot timings–no matter the reason, even if medical–are automatically penalized without being given a chance to provide an explanation. Penalties adversely impact ratings of the workers, who are then downgraded to a lower ranking impacting their ability to access GIGS and therefore their livelihood.

Another allegation levied against ride-hailing and delivery platforms is the lack of transparency in how platforms' algorithms allocate rides to certain workers over the others when a cluster of workers are present at a specific location. Zomato workers felt that that Zomato's allocation of work is frequently skewed against workers who are close to clinching the incentives floated by the application. Workers explained that the algorithm has a history of reducing the number of orders allotted to workers nearing their targets during peak hours. Suresh, a worker explained:

> Even if I am close to the restaurant for a pick up, and I just need one more successful order to complete to win the incentive, a worker who is much further away from the pickup location than I am is allotted the order just to prevent workers like me from reaching my incentive.

35 Baiocco, S., Fernandez-Macias, E., Rani, U., & Pesole, A. (2022). The algorithmic management of work and its implications in different contexts. Background Paper Series of the Joint EU-ILO Project "Building Partnerships on the Future of Work". https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/documents/publication/wcms_849220.pdf;

> The skewed order allocations is more stark when a group of us workers are standing together, and the worker who is about to clinch an incentive in the group is the always the last to be allotted a delivery.

This phenomenon is neither new nor restricted to Zomato. In a survey conducted and published by the ILO in 2021, the ILO reported that 43% of the workers they surveyed claimed that algorithms of platform companies are programmed in a way which does not assign workers enough rides while being close to reaching their targets.[36] This lack of transparency by companies on how workers are allotted rides places a significant burden on workers who are left in the dark to decipher the terms of work applicable to them.

Contrary to paeans of 'flexibility' that platform companies sing, we discovered most food delivery platforms to be highly inflexible, preventing workers from seamlessly switching between different platforms as expected. Swiggy and Zomato workers in Bengaluru and Belgaum explained that while it may technically be possible to log on to both applications, in reality the platform model is such that workers tend to lose out on their earrings when they log on to multiple platforms. The algorithm is programmed to offer very little leeway or choice to workers in accepting or rejecting orders assigned to them. Workers explained that if they have picked a specific slot of work on Zomato or Swiggy, canceling orders more than once during the slot time invites strict penalties.It will first lead to workers gaining lesser orders, eventually leading to a situation where their ID may get blocked. Consequently, switching between the different platforms for most workers was not an option.

This slot system of work also creates a high degree of uncertainty in their access to deliveries, Zomato workers explained. Under the slot system, workers have to bid against thousands of their colleagues for a spot on the slot system for any specific period. Phone or data glitches which may cause workers difficulties in accessing the bidding war on time means workers lose out on deliveries. resulting in zero income for these workers.[37]

10. The logic of the algorithm forces workers to work longer and longer hours, undermining the promise of flexibility and independence

A common misconception about platform work is the idea that most workers across platforms enjoy flexible working hours and a flexible working schedule. It is also commonly misconceived that for most workers' work on the platform economy is a form of supplementary income and an addition to their primary source of income. However, as per the ILO, this is not the case for many delivery and transport-based platforms. An estimated 84% and 90% of these workers respectively deriving their main source of income from this work.[38]

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36 International Labour Organisation. (2024). Realising decent work in the platform economy. International Labour Conference, 113th Session 2025. https://www.ilo.org/sites/default/files/2024-07/ILC113-V%281%29-%5BWORKQ-231121-002%5D-Web-EN.pdf

37 Matharu, S. (2022). Zomato workers panting on bicycles with low pay. But for company, image matters. ThePrint. https://theprint.in/feature/zomato-workers-panting-on-bicycles-with-low-pay-but-for-company-image- matters/1057580/

38 International Labour Organisation. (2024). Realising decent work in the platform economy. International Labour Conference, 113th Session 2025. https://www.ilo.org/sites/default/files/2024-07/ILC113-V%281%29-%5BWORKQ-231121-002%5D-Web-EN.pdf

This facet of transport and delivery platform work was also borne out by research from University of Pennsylvania which found 60% of cab drivers across eight cities in India working over 12 hours a day and 55% of food delivery workers working between 12-14 hours a day. [39]

Working hours in India are regulated by the Factories Act, of 1948 which caps the number of working hours to 8 hours a day. Any work beyond this limit is subject to overtime payment at twice the wages of the worker. While the law's application to platform workers may be contested, the implications of overwork especially on the health and well-being of workers cannot be understated. A joint ILO and WHO report released in 2021 found overwork to be directly linked to increased incidence of heart disease and stroke.

In our interviews with Zomato and Swiggy workers, we found overwork to be a constant feature of food delivery work in the platform sector. Notably, these workers exposed how increased working hours of these workers was a product of algorithmic management and how algorithmic intervention on the application often led to workers working a high number of working hours even when workers preferred otherwise. Workers reported their inability to cancel orders on the application and how this often forced them to be available on the application for longer working hours. For example, Zomato workers in Bengaluru shared that when they cancel orders at night in Bengaluru and the same order gets reassigned to them by the application, they have no choice but to deliver the order. Mahesh, a Zomato worker, testified waiting for over ninety minutes to deliver orders after 12 AM and earning just about Rs. 7 for the waiting time. He shared:

> First preference is always the customer and then the vendor; the worker is always the last priority.

Zomato workers also shared instances of the application working contrary to workers' input into the application. The Zomato application provides an option for workers to be assigned orders on the route back home. However, workers shared that this option is almost never honored. Prashant, a Zomato worker explained to us:

> Every time I select this option, Zomato assigns orders in the opposite direction of my house. Since my incentives are tied to avoiding order cancellations, I can't decline the assigned orders. As a result, I often end up working an extra hour or two before I can finally head home.

Additionally, Zomato and Swiggy workers expressed their frustration with reaching target incentives under the application and bemoaned the ways in which workers are manipulated into working longer hours to reach these incentives. Workers shared that algorithms are calibrated in such a way that the application does not assign deliveries to those who are close to reaching their target incentives. Speaking to the Rest of the World, many Zomato workers testified that the application would cease assigning orders at 11:30 PM just when the workers were one ride shy of reaching their targets. Workers shared that the decline in incentives have been so precipitous that many workers have completely lost faith in it.

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39 University of Pennsylvania, People's Association in Grassroots Action and Movement (2024). Working and Living Conditions of App- Based Gig Workers in India. Telangana Gig and Platform Workers Union. https://tgpwu.org/wp- content/uploads/2024/03/Report-Final-Print-1.pdf

Notably, algorithmic management is implicated not just in prolonging working hours, but also in increasing the intensity of work for workers involved in the job.[40] This is particularly so for workers working at Amazon warehouses.

Tracked by a software called Associate Development and Performance Tracker, better known through the acronym ADAPT, Amazon warehouse workers shared that their first task upon reaching the warehouse facility is to clock in using their IDs. Different sources have identified ADAPT as a software used by Amazon to track employee performance and provide positive and negative across a range of factors.

The software tracker then identifies their assigned workstation and sets specific targets for each worker. If a worker falls short of the assigned productivity targets, as monitored by the tracking system, the management officials overseeing their performance subject these workers to intense mistreatment or abuse. Paresh, an Amazon warehouse worker shared:

> If we fail to meet the targets set by the application, we face verbal abuse, are questioned about our capability to do the job, and are threatened with termination.

Taking breaks is completely out of the question, shared the workers, with the tracker recording any break time including visiting the washroom as 'idle time'. Workers shared that what constitutes 'idle time' is highly arbitrary and not properly explained to the workers. This is particularly pernicious given that workers simultaneously hold the knowledge of being monitored while being in the dark about different aspects of their work–such as idle time–which is likely to trigger disciplinary proceedings or penalties.[41] Asha, an Amazon worker explained:

> If I accidentally scan the wrong barcode, my time is logged in as idle time. When I walk 300M to and climb up one floor to empty my card I have filled up during the course of work that too is registered as idle time.

If workers are unable to reach production targets including due to high idle time, workers are slapped with a negative ADAPT. Three negative ADAPTs within 22 days leads to the workers getting blacklisted from working at any Amazon warehouse.[42]

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40 Christopher, N. (2021). A tiny tweak to Zomato's algorithm led to lost delivery riders, stolen bikes and missed wages. Rest of World. https://restofworld.org/2021/how-a-small-change-to-zomatos-algorithm-created-havoc- for-delivery-riders/

41 Fairwork. (2024). Fairwork Amazon Report 2024: Transformation of the Warehouse Sector through AI. Global Partnership on AI. Fairwork. https://fair.work/wp-content/uploads/sites/17/2024/06/Fairwork-Amazon-Report_June24- 2.pdf

42 Jha, S. (2024). Amazon faces Indian court scrutiny for labour conditions at warehouse. Aljazeera. https://www.aljazeera.com/news/2024/11/30/amazon-faces-indian-court-scrutiny-for-labour-conditions-at- warehouse

Amazon's aggressive and work-intensive targets have been subject to intense scrutiny globally. This is of little surprise given that the Amazon's trademark is its 'speed of delivery' and 'customer satisfaction'.[43] In 2020, the UK Trade Union Congress in its report on Amazon, scrutinized the manner in which Amazon monitors workers productivity performance, and how workers who failed to meet production targets were targeted, and even dismissed, inculcating a deep sense of fear among workers. The report also found that productivity targets were not fixed, but roving, always leaving workers in a sense of uncertainty over their work targets. [44]

In May, 2024 Amazon Warehouses in India were revealed to have forced workers to take verbal pledges to not take breaks including to drink water or use toilets until they completed their production targets for the day.[45]

11. Algorithms interfere with workers' right to freedom of association and collective bargaining

By tracking and managing workers, tools of algorithmic management have significant consequences for workers attempting to unionize and collectively bargain over their working conditions. World over, there are growing reports of increased use of surveillance technologies programmed with an anti-union bias which assist with a range of anti-union activities from tracking workers trying to form unions to preemptively identifying workers likely to organize with a union. [46][47]

In interviews with food delivery workers in Bengaluru and Belgaum, we uncovered evidence of platforms using GPS systems to monitor workers' locations and track variables related to their whereabouts. Workers reported that the platforms actively discourage gatherings, even in small groups of twos or threes. Several workers shared that it was challenging to meet with colleagues while logged into the application, as the platform would detect such congregations and promptly assign them orders directing them in opposite directions, effectively dispersing the group. Karthik, a Zomato worker explained:

> It's amusing to us. We could go hours without receiving a single order, but the moment a group of us meet for tea or coffee while logged into the application, we're immediately assigned orders — each of us sent as far as possible from the others.

43 Fairwork. (2024). Fairwork Amazon Report 2024: Transformation of the Warehouse Sector through AI. Global Partnership on AI. Fairwork. https://fair.work/wp-content/uploads/sites/17/2024/06/Fairwork-Amazon-Report_June24-2.pdf

44 Trade Union Congress. (2020). Challenging Amazon Report. What can we do about Amazon's treatment of its workers?. Trade Union Congress. https://www.tuc.org.uk/research-analysis/reports/challenging-amazon-report

45 Jha, S. (2024). Amazon faces Indian court scrutiny for labour conditions at warehouse. Aljazeera. https://www.aljazeera.com/news/2024/11/30/amazon-faces-indian-court-scrutiny-for-labour-conditions-at- warehouse

46 Bernhardt, A., Suleiman, R., & Kresge, L. (2023). Data and Algorithms at Work: The Case for Worker Technology Rights. ILR Review, 76(1). https://laborcenter.berkeley.edu/data-algorithms-at-work/#_ednref60;

47 Amnesty International. (2020). Amazon, Let Workers Unionize! Respect for Workers Rights Is Not a Choice. Amnesty International. https://www.justice.gov/file/1122521/dl?inline=

Workers described this form of monitoring and the platform's immediate response as a deliberate strategy to isolate workers and prevent them from building relationships with colleagues. This enforced isolation not only fosters a sense of alienation but, as workers emphasized, hinders their ability to share common grievances, form solidarity, and organize collective action against the platform. Mahesh, a union worker working at Zomato, elaborated:

> We can only meet and carry out union activities when we're logged off from the application. This means losing orders while offline, but we're forced to choose between earning a livelihood and organizing as a union.

Apart from more deliberate designs by platforms to counter collectivization or union formation, it is also often the case that platform's round the clock work and incentive structure leaves workers with very little downtime to identify fellow workers, share experiences, and organize with a union.[48] As noted previously, platform workers work unrealistic hours to meet targets on the platform, even as algorithm programming constantly gears workers towards extending their existing work hours by manipulating order allocations.

While workplace surveillance is not a new subject–though technology has verifiably transformed it, making it more sophisticated, expansive and feral–Indian labor law has very little to say about worker surveillance, digital or otherwise. In India, trade unions and collectivization more broadly, are governed by the Trade Union Act, 1926 and the Industrial Disputes Act, 1947 ("ID Act"). The Trade Union Act governs registration and workings of trade unions across the country. It does not explicitly deal with countering practices harmful to unionization or trade unions by the employers. While the ID Act enumerates a panoply of 'unfair labor practices' ("ULP") there is no mention of worker surveillance as a ULP, casting a deep void in countering one of the most pernicious forms of union-busting and anti-unionization trends.

Way Forward

The previous section illustrates how algorithmic control deeply entrenches the power of capital over workers. The proliferation of algorithms at the workplace has only become more rapid in recent years. Our research offers a unique insight into how the day-to-day lives of workers are organized and controlled at the behest of algorithms that operate in regulatory lacuna with no oversight or accountability. The impulses of capital now form the governing rationale of how labor is organized on platforms. In this context, it is important for regulators, policymakers and the state to interrogate how algorithms are disenfranchising workers and depriving them of their fundamental rights.

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48 Garen, C. (2018). Labor Organising in the Age of Surveillance. Saint Loius University Law Jounral, 63(1). https://scholarship.law.slu.edu/cgi/viewcontent.cgi?article=1029&context=lj

Regulation and governance must thus not hesitate to hold platforms accountable. The first step in this regard is to enact horizontal regulation over algorithms, across all workplaces, accompanied by sector-specific guidelines to account for the realities of different labor markets. Secondly, fundamental labor guarantees, such as fair wages and freedom of association, must not be denied to platform workers on the grounds of employment status. Basic worker rights must be extended to all workers, regardless of their employment status. Thirdly, regulation must not only work to safeguard workers from arbitrary algorithms and further their rights, it must also intervene to redistribute power in the digital economy. Thus, worker data rights and community data rights must be enshrined in law to ensure that workers' rights over their data is protected, and can be leveraged for their collective benefit. Regulatory intervention is thus essential, in ensuring that the gains of a rapidly digitalizing economy accrue to workers and not to capital.