

Fairwork Amazon Report 2024

Transformation of the Warehouse Sector through AI

June 2024



GPAI |

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ON ARTIFICIAL INTELLIGENCE

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Introduction

“When the robots came, they made the job worse, worse, worse, because they are very fast, they don’t give you a chance to breathe sometimes. To be honest, it’s non-stop”. – Aleah, Amazon Associate, 2024

Aleah (not her real name) is an Amazon “Warehouse Associate”, working at one of the many fulfilment centres based in the UK.¹ Associates, also referred to as “Warehouse Operatives” by Amazon, are the workers who receive and stow products, and pick and pack them for customers, before they are sent to another node in Amazon’s supply chain for last-mile delivery. In the words of the company, associates are “essential”; they “literally bring customers’ orders to life, every day”.² Working in an “on task” role (also referred to as a “direct” role), Aleah and associates like her, are subject to an algorithmically determined, pace-based target, colloquially referred to as the “rate”. Aleah doesn’t really know how the “rate” is calculated. All she knows is that she needs to hit an acceptable pace to avoid coaching and potential disciplinary action, including receiving a negative ADAPT. ADAPT stands for Associate Development and Performance Tracker. According to the limited public information available and data collected for this research, ADAPT is a software used by management to track employee performance and provide positive and negative validation across a range of dimensions including productivity, quality, safety and behaviour.³

Aleah’s statement speaks to the human impact of the race for the ever-faster delivery of consumer goods that is driving automation within and across Amazon’s vastly complex supply chain.⁴ This supply chain is algorithmically managed via a collection of systems and models known today as Supply Chain Optimization Technology, or SCOT for short. SCOT utilises the vast amounts of data collected by the company to make decisions about “what inventory to buy, where to store it, how to pick it and ship it”.⁵ SCOT is an omnipresent force that is unseen, yet ever present for associates such as Aleah. Yet, SCOT is only one of the consequential AI technologies at Amazon. As the quote above indicates, the working conditions of associates in the most sophisticated of Amazon’s warehouses are also affected by the AI-orchestrated robots,⁶ as well as others.

The Fairwork project has, since 2021, focused on the present risks posed by AI system deployment on working conditions. The last report from the Fairwork AI project, published in December 2023, focused on a case study of Sama, a data annotation company located within the global production networks of AI.⁷ The report highlighted that the data workers who facilitate advanced AI development can face unfair working conditions that require significant and widespread change if they are to be improved. This current report addresses a second aspect of human labour in AI supply chains: how AI systems are transforming the workplaces where they are deployed. To do so, we focus on Amazon – specifically its operations in the UK. Amazon is a global giant that integrates data labelers, warehouse workers (including associates), delivery drivers and software and hardware developers into one of the most complex logistic operations in human history. This network is shaped by AI on multiple levels, from the generation of forecasts and fulfilment plans to the actual process of work on the warehouse floor, as well as management of the routes, schedules and allocation of parcels for the last-mile delivery.

Against this background, this Fairwork AI report, conducted as part of a project with the Global Partnership on Artificial Intelligence (GPAI), explores working conditions within the context of this multi-faceted deployment of AI at UK-based Amazon warehouses. Drawing on qualitative research, and utilising the Fairwork AI Principles as a framework, the report sheds light on the experiences of Amazon associates in the context of the AI-mediated warehouse. Following the Fairwork principles of fair pay, fair conditions, fair contracts, fair management and fair representation, the report provides a detailed overview of the impact of AI on workers.



Amazon defines AI as “the field of computer science dedicated to solving cognitive problems commonly associated with human intelligence, such as learning, creation, and image recognition”.⁸ The stated objective of the use of software and hardware in fulfilment and logistics operations is to “automate the most difficult and repetitive tasks, reducing mental and physical stress for workers”.⁹ Our research shows that automation, via AI-orchestrated robotics, does appear to be reducing physical bodily toil in some respects, such as reducing the need to walk extensive distances on the warehouse floor. However, the central findings highlighted in this report are that workers experience AI in the workplace through the constant push they feel to meet performance targets; an inability to change rigid labour process systems set by omnipresent and opaque algorithms; and a greater loss of control in their ability to understand and intervene in the decision-making processes that affect and govern their day-to-day work. The ongoing fight to unionise and secure wage increases for workers at Amazon UK further supports these findings.

Consequently, this report demonstrates that automated management systems are generating risks and harms for workers in pursuit of productivity. And while consumer expectations for delivery times, speeds and efficiencies are increasingly shaped by the introduction of technologies that promise faster, more efficient and accurate deliveries, the workplace performance targets used to achieve these feats are taking their toll on associates. Thus, a key conclusion of the report is that despite the specificities of the AI technologies introduced to the work processes, at each node in the operational system in which AI mediates work, significant changes are taking place that have an important impact on workers’ power and agency in their ability to respond to them, in terms of understandability, accountability and replaceability. From the moment a potential customer is thinking about buying an item to then receiving it, every step of the operation is now governed by AI. Considering AI systems as holistic, with overall impacts rather than the sum of specific technologies, is thus important. Otherwise, we risk an extremely opaque system with potentially harmful outcomes for workers.

Unlike other Fairwork reports which provide a “fairness score” as part of the analysis, this report is exploratory in nature, aiming to shed light on how the complex operational infrastructure of Amazon is integrating AI into the workplace, and how it is impacting the working conditions of those who are managed by it. Still, the sections below highlight the concerns workers have raised regarding their working conditions, as well as the practical steps Amazon is currently taking to address some of them.

Methodology

The Fairwork project uses three approaches to effectively measure the fairness of working conditions at companies where work is mediated via digital technologies: desk research, worker interviews, and interviews with company management. This report draws on research undertaken in the UK between December 2022 and April 2024, with the majority of the fieldwork and site visits taking place between April 2023 and April 2024.¹⁰

The analysis presented below brings together a variety of data the research team has compiled. This data is based on desk research, worker interviews, analysis of company policies, terms and conditions, contracts (where accessible), conversations and engagements with managers from Amazon, site visits to Amazon warehouses in Manchester, UK (one Amazon Robotics Fulfilment Centre (MAN3) and one Delivery Station (DHX5)), and discussions and observations on the picket lines staged by striking Amazon workers, including with union organisers. Due to the risk of identification of the workers, the report does not detail which picket lines the research team attended during fieldwork, or the specific warehouses the interviewed workers work at.

In total, the research team conducted interviews with 22 workers, from different types of facilities within the network that underpins Amazon.co.uk, including a receive centre, robotic, manual and speciality fulfilment centres, and a delivery centre. Some of the interviewed workers had worked at



several facilities across the distribution network as a result of the internal transfer scheme offered by Amazon, whereby workers may be paid to move to a different facility. The interview sample consisted primarily of current associates.

The research team also engaged with several employees in key higher-managerial roles at Amazon, including in warehouse and delivery station operations, and public policy. Conversations and engagements were conducted online and offline. Additionally, the research team received written feedback on their questions about specific technologies from Amazon UK management.

The research team would like to express their gratitude to all the workers, Amazon UK management and union representatives who generously shared their time, experience and expertise. The research team collectively analysed the research findings, and the report was shared with Amazon UK management team before publication. Here is their comment on the report:

“Amazon aims to create the safest and most technologically-advanced workplace on Earth. Any technology we design is intended to create a better work environment, augmenting and supporting our people, rather than replacing them. In our fulfilment and logistics operations, we use software and hardware to automate the most difficult and repetitive tasks, reducing mental and physical stress for employees – and means we have 50% fewer injuries than other retail and logistics businesses in the UK. The use of state-of-the art robotics has cut down on walking time in our Fulfilment Centres, increased operational efficiency, whilst also creating a need for more skilled jobs such as engineers to operate and maintain the advancements. We listen to, and regularly act on feedback and suggestions from our employees, and our open-door policy encourages them to bring their comments, questions and concerns either directly or anonymously. One of the key means of doing this is through our Associate Forums referenced in this report. The public can also visit our Fulfilment Centres and see for themselves the environment we create for our employees through our public Amazon Tours: <https://amazontours.com>”.

Background

“Fast, faster, fastest” – Sarah Mathew, Amazon VP Global Product & Delivery, 2023.¹¹

The above quote is taken from a video produced by The Wall Street Journal for *Shipping Wars*, a recent series which explores the ongoing race for ever-faster delivery between Amazon and its leading US competitors, Target and Walmart. Amazon, as the video explains, is the pacemaker in this race. Signified by terms such as “the Amazon effect” and “Amazonification”, the company has fundamentally raised consumer expectations when it comes to speed.¹² In 2005, it launched “Amazon Prime” providing two-day delivery to consumers in the US.¹³ Since then, Amazon has consistently raised the bar, claiming to deliver seven billion units on either the same day or the next day to Prime members in 2023¹⁴, with the fastest UK-based delivery clocking in at 75 minutes in 2023, according to a company blog post.¹⁵

Speed is so important to Amazon because it is via the acceleration of inventory through the supply chain that it can maintain its promise to consumers of fast and efficient delivery, and extract more value from the sale of inventory. To achieve this acceleration, the company has sought to bring



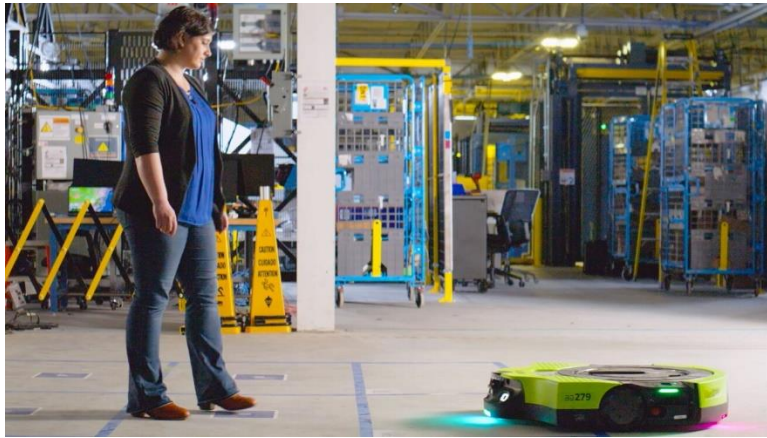
inventory closer to the destination of its final delivery via the expansion of its network of facilities, particularly Prime Now Hubs¹⁶, as well as by extending its control of the supply chain via the creation of an in-house last-mile delivery network. Critically, it has also sought to automate key tasks within the fulfilment process. This process of automation has been conducted primarily with two distinct but connected technological fields: robotics and artificial intelligence.

In 2009, Amazon began using a “random forest model”, a machine-learning algorithm, which enabled the implementation of a single forecasting system to make forecasts for different product lines even when they may have different features.¹⁷ This allowed Amazon to forecast changes in product demand¹⁸ and marked one of the early stages in a process of development that has led to the creation of SCOT. Amazon describes SCOT as “a master conductor leading an orchestra of millions”.¹⁹ The system facilitates the management of the vastly complex Amazon supply chain by forecasting demand, placing orders, managing supply chain capacity, planning fulfilment, and identifying the optimal route for delivery. Taken as a whole, SCOT is probably one of the most consequential AI systems in the world, performing automatic management functions that direct substantial parts of Amazon’s \$1.8 trillion of capital on a daily basis.²⁰

The use of robotics in the fulfilment process began at a similar time, with the acquisition of Kiva Systems – subsequently re-named Amazon Robotics – for \$775 million in cash in 2012.²¹ Aspiring towards the revolutionisation of inventory distribution within warehouses, Kiva developed robotic drive units to read barcodes on warehouse floors and deliver inventory to stationary workers, thereby increasing the speed of picking and packing. An article, written in 2008, outlining Kiva Systems and the intended impact of the robotic drive unit on fulfilment operations in warehouses, put it as such:

“In a typical conveyor-based operation, a worker can pick 200 to 400 items per hour. The Kiva robots can present a new item to a worker every 6 seconds, leading to a base rate of 600 picks per hour, with Walgreens [a then client of Kiva Systems] reaching a rate of more than 700.”²²

Fast forward to 2024 and Amazon has built substantially on Kiva’s original vision. Claiming to have deployed more than 750,000 robots in its fulfilment operation worldwide, it has developed an array of robotic solutions to automate key labour processes.²³ This includes further iterations of the original Robotic Drive Unit, including “Proteus” - described by the company as a “fully autonomous mobile robot”²⁴ which can “move 800-pound carts around a fulfillment center without being confined or restricted to a particular area”²⁵ - and the Nike Intent Detection System (IDS), which uses deep-learning based computer vision cameras to confirm the location of products stowed (placed) in pods (shelving units) by associates.²⁶ Furthermore, some of Amazon’s systems are positioned at the intersection of AI and robotics. This includes Amazon’s Fulfilment Operating System (FOS), which uses generative AI models and synthetic data to simulate, optimise and choreograph orders within warehouses.²⁷



Source: “How Amazon deploys collaborative robots in its operations to benefit employees and customers”. Principal Tech Program Manager, Proteus Lead Mikell Taylor stands next to Proteus, an Amazon robot.²⁸

It is not just AI and robotic technology that enables the rapid flow of inventory through Amazon’s network of facilities, however. The company also relies on the workers, performing a range of functions at strategic points within the fulfilment process. On the warehouse floor, these functions can be broadly divided into those which are “on task” / “direct” – wherein workers handle inventory, use/work alongside a scanner (a device that reads barcodes²⁹) and are subject to a target “rate” – and those which are “off task” / “indirect”.³⁰ The next section of this report will introduce the warehouse from the perspective of the workers interviewed for this research, proceeding through key tasks in a fulfilment centre integrated with robotic technology. To ensure that the anonymity of those interviewed is protected, we present the analysis via a composite narrative that weaves together stories and perspectives from across our data set. This is a reconstruction based on worker accounts as they experience the work and workload, and may not reflect a version of how the company operates as told by management.

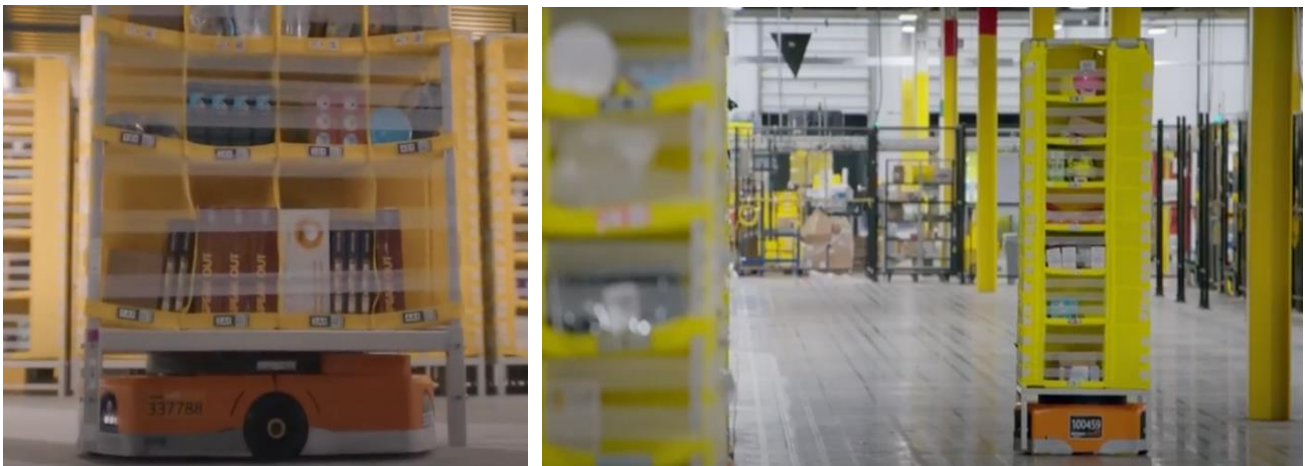
Welcome to the Warehouse: A Workers’* Narrative

**Pseudonyms have been used for the purposes of anonymity.*

Sam has been an associate at Amazon for several years across both robotic and manual sites. Currently based in a fulfillment centre, Sam works full-time, on the day shift, which means four 10-hour days, with two 30-minute breaks – one paid, one unpaid – and three days off a week.

Fulfilment centres are one of seven facility types within the complex network that underpins Amazon.co.uk.³¹ They are vast, box-like buildings. Multiple stories high, branded with the famous Amazon tick, and on at all hours of the day to fulfil consumer demand for rapid delivery that the company has helped to create, they dominate the landscapes within which they are situated. Sam is lucky because relative to some of his colleagues, he lives quite close to the fulfilment centre. He drives in, picking a friend up on the way, and usually arrives about twenty minutes before his shift starts. He says hello to his colleagues and then clocks in. One of his favourite things about working at Amazon is the friends he has made; “it’s a very diverse place” he explains. Each day starts with a brief, which lasts about 5 to 10 minutes. In that brief, associates get safety tips, site news, HR news and information about how busy it is going to be. Then, the work begins.

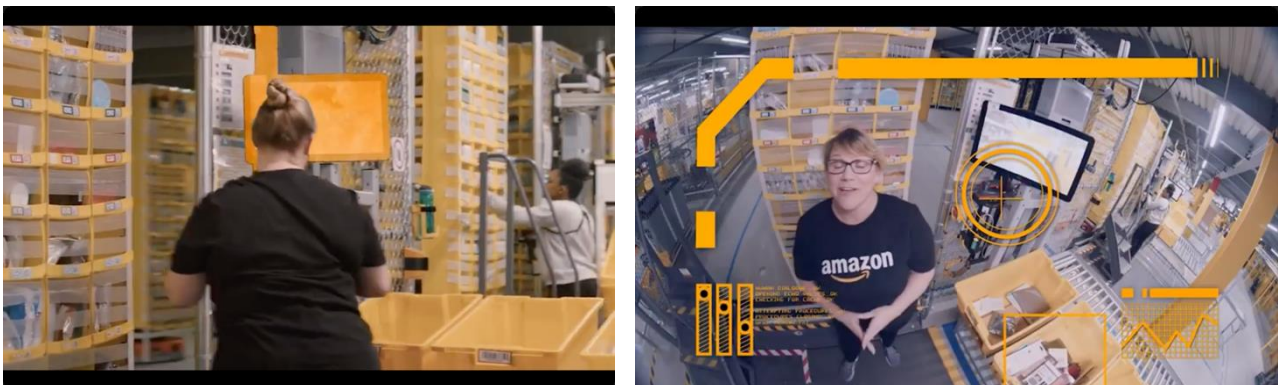
There are five different departments in the robotics fulfilment centre that Sam works in: receive, stow, pick, pack and shipping. The departments are connected by conveyor belts that weave throughout the warehouse. Inventory begins at receive, where it is unloaded from the lorries, put into totes – which are big yellow boxes – and then onto the conveyors.



Source: Screenshots of RDUs carrying pods from a YouTube Video posted on the “Inside Amazon” Channel.³²

From receive, the inventory comes to stow. At stow, inventory is taken from the totes and put into the pods. Pods are tall, yellow shelves with different compartments. In the manual warehouse that Sam used to work in, “you go, and you bring the work from place to place, you move them yourself”. But in this warehouse, “the robots do everything, you only need to wait in your station”. As Sam explains, the robot drive units bring the pods to the workstation and “we just scan it and put it inside the pod, scan it and put it inside the pod”.

The scanner is fixed above, pointing down on the workstation. There is also a screen, and a projector, also known as a pick-by-light system. “Whenever you scan an item, yeah, the projector is looking around the pod, so on the pod, whenever you see a pink light, that means don’t put an item there.” The light from the projector hurts Sam’s eyes. Sometimes when he comes home, they are streaming.



Source: Screenshots of robotic stow stations from a YouTube video posted on the ‘Inside Amazon’ Channel.³³

This is the same at pick – the department that inventory travels to after it has been stowed. The pick workstation looks very similar to the stow workstation, but here associates aren’t putting inventory inside the pod, they are taking it out. It isn’t a complex task, “we don’t have to think about it, we just do it” explains Jane. But the “rate” – that is the number of items processed per hour – is usually high. “You cannot take breaks, because if you disappear for 2 or 3 minutes, your rate goes down”. If your rate is too low, you can get a negative ADAPT.

ADAPT stands for Associate Development and Performance Tracker. According to the limited public information available and data collected for this research, ADAPT is a software used by management to track employee performance and provide positive and negative validation across a range of



dimensions including productivity, quality, safety and behaviour.³⁴ There are two kinds of ADAPTs, explains Jane. The first one is a positive ADAPT, which you can get if you have a “good performance”. The second one is a negative ADAPT. This is the one that really matters. As Jane explains:

“If you get three negative adapts, they’re going to give you warning and they call you [for a] meeting. After [the] meeting they give you a warning, within these six months, you can’t do anything, you can’t change fulfilment centre, you can’t change department”.

It isn’t only the rate and the risk of ADAPTs that makes pick difficult, though. Jane also finds pick really isolating. In manual fulfilment centres, as with stow, Jane would walk around the warehouse. That would be tiring – she could easily do 15 or 16km per day, often more – but at least she would see people. In a robotic fulfilment centre, associates in pick work at fixed stations, with just the robots for company.

Jane prefers to work in other roles, but that isn’t her choice. It is the managers who get to decide. This means you need to build a good relationship with them. This adds another layer of stress. Lots of the managers are “very young, around 22, 23, 24, 25” and have come straight from university. Amazon reportedly requires managers to spend some time doing each of the key tasks on the warehouse floor as part of their induction, and some of the managers have risen through the ranks, meaning there is a level of understanding about the work that associates do. But managers are pressured and incentivised to hit their targets, too. This can translate into difficult and dehumanising treatment from some. As Jane explains “they do approach you in a way that sometimes makes you feel like you are not human, you know”.

Once items are picked, they are packed into Amazon-branded boxes. Jordan has worked at Amazon for years in pack. “We just do single packs and sometimes multi-packs, like multiple items.” The rate can be high in pack too. When he first started at Amazon, on a fixed-term contract, he never hit it. But having failed to secure a contract extension on more than one occasion, he worked out that he needed to achieve a high rate in order to secure permanent status. Over time, his body has become accustomed to the pace.

“I’ve been doing it for a while now, so I’m used to working at that tempo. Even if I don’t want to get the target, I end up hitting the target, because I’ve been doing it so long. I’m just used to working at that speed. When I stop working at that speed, I get bored, time slows down for me, and I’m used to it. And that’s literally what Amazon wants. They want to programme me to the point whereby you hit the target without you realising that you’re doing it”.






After pack, items go to shipping. This is the final stage of the fulfilment process in a robotics warehouse. For some workers, this is preferable because of the lack of target. “There is no one on you, coming and telling you to hit the target” explained Timothy. It has been automated too: “You scan your first three parcels, then scan your last three and then fill the container.” But some of the roles in shipping are quite physical, with workers loading cages onto the trailers for lorries. After that, parcels are sent off to delivery stations where they are sorted for the last mile and picked up by independent contractors, engaged via either Amazon Flex or the Delivery Service Partner programme.³⁵

Fairwork AI Principles

Against this background, the report details the research findings, structured around the Fairwork AI Principles. Developed in collaboration with the Global Partnership on Artificial Intelligence (GPAI), the Fairwork AI Principles offer a concrete set of standards that can be used to assess fairness in



workplaces where AI has been deployed or is being developed. The principles are organised around the core Fairwork structure of Fair Pay, Fair Conditions, Fair Contracts, Fair Management and Fair Representation. A brief overview of each principle is presented here, with the principles presented in full, in the appendix.

Principle	Sub-principle	Description
 <p>1. Fair Pay</p>	1.1 Pays at least the local minimum wage	Workers, irrespective of their employment classification or contract type, should earn a decent income, and they are paid on time and in full.
	1.2 Pays at least the local living wage	
 <p>2. Fair Conditions</p>	2.1 Ensures safe working conditions	Companies should have policies in place to protect workers from risks arising from the processes of work and should take proactive measures to protect and promote the health and safety of workers.
	2.2 Ensures paid leave and a safety net	
 <p>3. Fair Contracts</p>	3.1 Provides decent contracts	Terms and conditions should be accessible, readable and comprehensible. The party contracting with the worker must be subject to local law and must be identified in the contract. Regardless of workers' employment status, the contract is free of clauses which unreasonably exclude liability on the part of the service user and/or the company. The employer should make reasonable adjustments in wages and conditions between workers in different contractual arrangements.
	3.2 Provides secure employment	
 <p>4. Fair Management</p>	4.1 Treats workers fairly	There should be a documented process which guarantees that the employer will not discriminate; and that workers have the right to appeal decisions affecting them. There must be a clear channel of communication to workers involving the ability to apply management decisions. Where AI systems are involved in work, employers must create explainability mechanisms such as transparency reports, and workers must be able to appeal decisions made by AI systems. Management should avoid excessive surveillance and should strive for data minimisation.
	4.2 Creates clear and effective systems for data management, explanations and appeals	
 <p>5. Fair Representation</p>	5.1 Assures freedom of association and the expression of collective worker voice	Companies should provide a documented process through which worker voice can be expressed. Irrespective of their employment classification or contract type, workers should have the right to organise in collective bodies, and companies should be prepared to cooperate and negotiate with them.
	5.2 Supports democratic governance	

Working conditions on the warehouse floor: An analysis

Fair Pay

The issue of pay has featured significantly in campaigns for fairer working conditions at Amazon over the past decade, as signified by the slogan “Make Amazon Pay”.³⁶ Following an announcement in August 2022, that the minimum starting pay at Amazon UK would be increasing to between £10.50



and £11.45 per hour, depending on location (from between £10 and £11.10 per hour), associates at various warehouses initiated wildcat actions, including slowdowns, walkouts and sit-ins, to express their dissatisfaction with the increase, at a time of spiraling inflation.³⁷ As one interviewee recalled:

“[Management] came up to us and said, hey guys, we’ve reviewed [the pay], we’ve talked about it here’s 50p. And we said this is not enough. We need more. You know, because the cost-of-living crisis has gone through the roof. Everything, interest rates, petrol prices, food prices, everything’s gone up. You’re killing us on cost of living here. They just went “no more money”. So, all of a sudden, the whole warehouse walked out in August, end of August, we all just walked...”

Since then, according to evidence provided by Amazon UK to Fairwork, three further pay increases have been introduced to the starting minimum pay: in April 2023 (to between £11.00 and £12.00 depending on location); October 2023 (to between £11.80 and £12.50 depending on location); and April 2024 (to between £12.30 and £13.00 depending on location). The company has also announced a package of financial benefits for all full-time, part-time, and temporary associates. This includes: income protection, an employee discount code, life assurance, a pension programme, mortgage advice, private medical insurance, a vision voucher and dental insurance, as well as a career choice programme which “provides funding for skills development through nationally recognised courses of up to £8,000 over four years”.³⁸ Furthermore, as of April 2024, the starting minimum pay for associates in the UK is at least 30p above the real Living Wage in the UK (which sits at £12.00), but at least 15p lower in London (which sits at £13.15).³⁹

The interviews conducted for this research revealed that workers earn a higher hourly rate for working night shifts, and for doing overtime which is capped at 60 hours per week.⁴⁰ For the first 10 extra hours of overtime (equivalent to one extra day for those working full time, at 40 hours per week, thus totaling 50 hours), pay is 1.5 times the usual rate, and for an additional extra 10 hours on top of that (totaling 60 hours per week), pay is twice the usual rate. Excessive overtime has well-documented negative health impacts, but we have learnt that several full-time workers feel the need to do so at times - sometimes for weeks on end - simply to make ends meet.⁴¹ As one explained:

“That’s why I try to do, you know, six days or even five days, just to get that extra, you know, a little bit of boost. No one wants to do it. But you have to sometimes.”

It should be noted that many of the interviews were conducted before April 2024 when inflation was higher, and pay was lower. However, those interviewed in April 2024 emphasised the inadequacy of the forthcoming pay rise.

“...that isn’t enough, I have kids at home and then if I do want that extra money, I have to do overtime and that takes a lot out of you”.

As such, Amazon currently meets the real Living Wage in the UK (except London), and pay remains a key worker grievance, with a sentiment emerging from interviewees that the remuneration does not reflect the effort the job requires. As one exclaimed:

“We don’t deserve that kind of payment, we don’t deserve [it], because we work hard, we sweat for work, we feel exhausted”.

This sentiment is reflected in the GMB Union's ongoing campaign for union recognition at Amazon in the UK, to which the call for minimum starting pay of £15 per hour is central.⁴² Raising pay further to the figure cited in the GMB Union campaign would be a prudent improvement that Amazon UK could take to assuage a significant worker grievance.

Fair Conditions

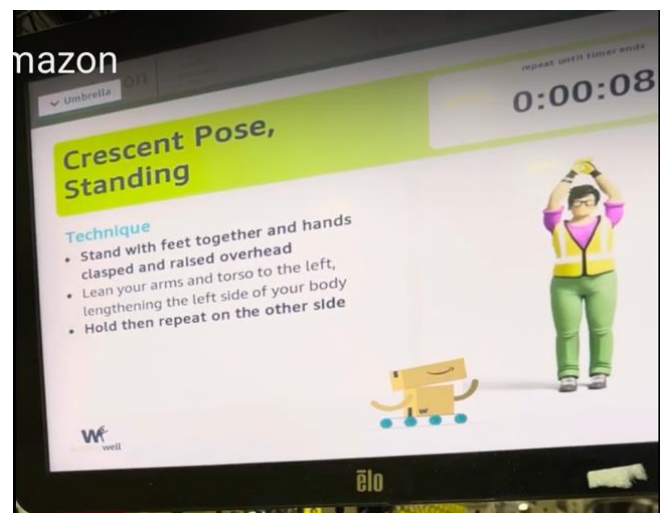
“Safety is always a top priority and Amazon has a long history of investing in safety across our operations.”

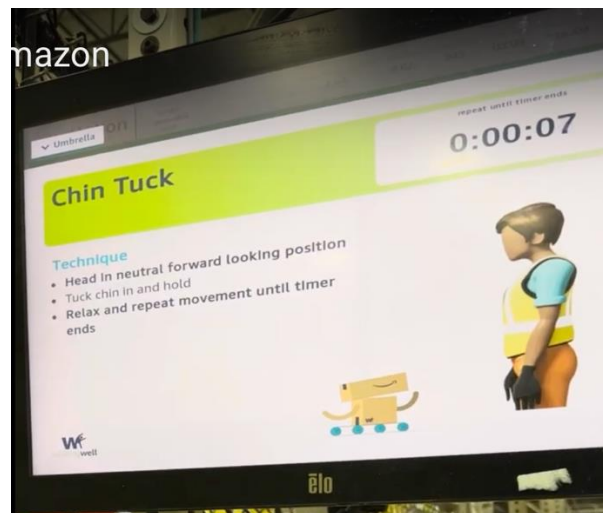
The above statement was included in a submission from Amazon UK to the Business Energy and Industrial Strategy Select Committee about the use of AI and technology in the workplace.⁴³ In that same statement, Amazon UK highlights the WorkingWell programme as an example of that investment. An extension of the mindfulness culture that has found considerable force in the corporate world, this programme was described as follows when launched in May 2021:

“a new comprehensive program providing employees with physical and mental activities, wellness exercises, and healthy eating support that are scientifically proven to help them recharge and reenergize, and ultimately reduce the risk of injury”.⁴⁴

During the interviews conducted for this research, aspects of the WorkingWell programme – which appears to have been fully rolled out in the US, and partially in Europe⁴⁵ – were encountered. This includes “Mind & Body Moments” (hourly on-screen prompts for workers to take a break and perform specified stretches), “huddles” (small meetings with an operational lead, during which associates are shown short videos, including about how to lift boxes) and yearly “Ready, Steady, Go” training also focused on ergonomics.⁴⁶ One worker explained the “Mind & Body Moments” as:

“It’s a screen that is telling you to basically relax, stretch for like 30 seconds. It will pop up and you need to like have a 30 seconds, like you know, you need to basically stay away from the machine, stretch, like, move around a bit, you know, stretch your legs, and they do project a bunch of stretches on the screen that you can actually do on your station.”





Source: *Mind & Body Moments as seen on a YouTube Video uploaded from inside a warehouse.*⁴⁷

These measures address some of the risks that arise from work on the warehouse floor, and they should be recognised as positive interventions. However, challenges remain in terms of the pace of work – especially in “on task roles” such as pick, stow and pack, in which workers are handling inventory – the repetitiveness of tasks and the lack of worker agency. As one worker noted in reference to the Mind & Body Moments:

“So that helps, but still, repetitive movements – as I said, people are doing 400 packs per hour – is going to, you know, after a while, you're going to start feeling it.”

The pace of work in “on task roles” is designated by the “quantity” target (also referred to by workers as “the rate”), which was understood by workers as the number of items processed (i.e., picked, packed, stowed) per hour. In a letter to Darren Jones MP, the then Chair of the Business, Energy and Industrial Strategy Committee, in 2023, Amazon UK stated that performance targets are “set by a combination of individual rates (naturally set) and site-specific rates”. The site-specific targets are said to be “determined based on average rates of processing items by the employees at the site over the previous 4 weeks”; they “may differ with each site (based on site location, order volume and kinds of products fulfilled). Whereas, the “individual performance rate essentially includes a reflection of the rate the employee is naturally able to perform at” and is said to be “based on change of natural ability of the employee to perform a task (based on factors such as the nature of task, and size/volume of inventory handled)”.⁴⁸ The company further noted, in a communication note to Fairwork:

“We do not set rates on the basis of some faceless algorithms. First of all we have a culture of continuous improvement as a company and we always look to make ‘tomorrow’ better than ‘today’. With that in mind, we encourage all our teams to be creative in terms of coming up with ways to improve existing processes by reducing waste. When any site around the world is able to demonstrate a better approach we try to adopt that as a ‘best practice’ around our operations. The new rate is simply an outcome of an improved process instead of an arbitrary challenge that forces people to work harder.”



The associates interviewed for this research had not been provided with a clear explanation of how the target rate was calculated (some workers referred to this as “the algorithm”). Additionally, there appears to be a lack of standardisation in terms of whether workers are told a specific target rate or informed about their actual rate. What workers did know, however, was that the target rate changes depending on demand (i.e. increasing at “peak” time, between October/November to January), and that if they fall too low below the target as compared to other associates (i.e., within the “bottom five percent”⁴⁹), they may face managerial questioning, coaching and potential disciplinary action, such as a negative ADAPT. This combination of transparency (knowing they are being monitored according to a rate) and opacity (not knowing how the rate is calculated or, in some cases, what it is) generates work intensification, since some workers simply feel the need to work fast:

“We don’t really understand the rate system ourselves, all we know is you have to work like hell, that way you generate a big rate and then you’re probably safe.”

“they’ve got like crazy rates like 400 per hour, 350, you know [...] people struggle to hit, but you don’t really have an option, you know, like you have to, you have to at least hit 80 percent of the target or something like that [...] So it’s a thing where you’ve got people working like machines”.

The notion of working like machines, or robots⁵⁰, was a common thread in the interviews conducted for this research, reflecting the high demands that workers experience. This is not simply due to pace, but also the length of the shifts (10 hours) for which workers are required to remain on their feet (except for two 30-minute breaks a day, one paid and one unpaid), and the physically strenuous nature of certain roles (especially “off task” roles), such as those where associates are required to lift or pull boxes and carts.

The introduction of the mobile robotic drive units discussed earlier, which bring pods to associates, has reduced the bodily demands in some respects, such as by removing the need to walk long distances across the warehouse when stowing and picking (which was reported as a challenge at manual facilities, with reports of workers walking upwards of 15 km a day, or nearly 20,000 steps).⁵¹ Regarding the introduction of robotics, Sarah Rhoades, Vice President of Global Health and Safety in April 2024, stated the following in a comment which was supplied to Fairwork by Amazon UK.

“Employees are the heart and soul of our operations which is why the technology we deploy at our sites is always focused on serving our team and making our operations safer. Our continued investment in robotics helps reduce employees’ physical workload and repetitive tasks that can cause injuries, while also helping them gain new skills that can advance their career.”

Some interviewees who had transferred from manual facilities to robotic ones stated that the introduction of robotics, such as the mobile drive units and robotic arms, has made some aspects of the job easier. However, such interviewees also recalled an increase in the pace of work now that they work with robots.

“In [manual facility], when I was there, as I told you, it’s a manual site, and the rate is less, I mean in [manual facility] like it was like 70 per hour, but it is different in [robotic facility], they expect you to do at least 180, so it is totally crazy.”

The pace-based demands, together with the need to perform repetitive motions in certain roles, and lift heavy items in others, have a significant impact on the physical and mental health of associates. Almost all of those interviewed for this research described persistent aches and pains, as well as



exhaustion, with some unable to perform simple tasks after their shift such as housework, driving or cycling home. Previous research and journalistic accounts have also raised concerns about more serious injuries.⁵² It appears that managers make efforts to rotate workers to different roles in certain warehouses. However, some interviewees reported that requests to move to different departments due to rate-related pressures and the strains of certain roles, had been refused by management, with one interviewee explicitly noting that they were told that they would have to hit a higher rate to receive cross-training for a different role. As well as the physical challenges, interviewees also described feeling “demoralised”, “hopeless” and “very, very stressed”. In the case of robotic sites, mental health challenges were also raised in relation to the isolation experienced when working at fixed workstations, with pick described as “a kind of cage”:

“you haven’t got anyone on either side of you, so you being in there for 10 hours is a massive struggle. A lot of individuals do suffer from mental health issues.”

Finally, workers we interviewed expressed that policies concerning illness further adversely impact their well-being in the workplace. For instance, it was reported that associates are limited to three incidents of sickness in a six-month period, with the failure to adhere to this resulting in disciplinary action which renders them unable “to take a step up” (i.e. be promoted) for six months or transfer between different warehouses for three months. “It’s like you can’t be sick” described one associate who had received such a disciplinary note.

Fair Contracts

Amazon offers full-time, part-time and term-time contracts to its associates in the UK.⁵³ Contracts for those who are directly employed can be viewed via the Amazon A to Z app, which associates download on their personal phones.⁵⁴

All the associates we interviewed for this research were directly employed on permanent contracts. However, many began as outsourced workers, hired by agencies, or on fixed-term contracts. In 2021, Amazon UK came under fire for its use of agencies following a report from the Bureau of Investigative Journalism, ITV and the Daily Mirror, which revealed that associates supplied by recruitment agencies PMP and Adecco, were being employed on zero-hours contracts, contrary to Amazon’s stated employment policy.⁵⁵

Since then, Amazon has stated that it is reducing its reliance on agencies, and our interview data suggests that they are indeed no longer used for the supply of associates in certain warehouses.⁵⁶ However, another precarious work arrangement prevails; that is, fixed-term contracts. With “seasonal associates” hired for only a few months at a time, this arrangement allows Amazon to account for increases in demand during “peak time”.⁵⁷ According to evidence provided by Amazon to Fairwork, the number of “seasonal associates” hired in each region is informed by SCOT, the Supply Chain Optimization Technology discussed earlier.

Fixed-term contracts can lead to permanent contracts, but this is not guaranteed. One interviewee who had been on multiple fixed-term contracts that had ended, before eventually securing a permanent one, explained:



“Based on the first experience that I had working at Amazon, I realised that when you work in off-task, it’s really hard for them to determine your productivity, and Amazon decides to keep you based mainly on your productivity and attendance.”

Another interviewee who described working “really, really hard, scanning loads and you know, being like a robot” when seeking to secure a permanent contract, noted that they were explicitly told by management that being kept depended on their rate, attendance, punctuality, and behaviour in general.

Fixed-term associates thus appear to be under more pressure to work fast and hit targets. This dynamic has effects which extend beyond these more precarious groups of associates, however, with several in our sample reporting that the pace of work established by those striving for permanent status had the effect of raising the overall expected pace of work on the warehouse floor. This is seemingly a reflection of the fact that performance targets take into account the site-specific targets, which are “determined based on average rates of processing items by the employees at the site over the previous 4 weeks”.⁵⁸

Although permanent associates enjoy more contractual security, some expressed fears about automation-driven job losses due to the integration of robotics, including the fear that in a matter of years Amazon will only need a small handful of managers and engineers. One referencing current technology-driven changes noted

“There are a lot of people within Amazon that have been there a while that are on light duty – that means they can’t lift heavy things – but now obviously with automated picking coming in, that is taking them out of a job.”

Our research findings also indicate that third-party contracts prevail for other types of workers within Amazon’s supply chain, including warehouse cleaners employed via agencies, delivery drivers contracted via Amazon Flex and the Delivery Service Partner programme, and data workers. Whilst fixed-term employment and self-employment may be suitable for some workers’ circumstances, secure employment represents a fundamental improvement of working conditions for many others.

Fair Management

Whilst on the warehouse floor, associates receive directions from a variety of algorithmically programmed technological tools from scanners to screens, to pick-by-light systems. This refined system of algorithmic management leaves workers with very little latitude for decision-making. As one worker noted with reference to their overall experience of work on the warehouse floor:

“We do everything without thinking. This is like in automatic mode. We just work, work, work without thinking because of the computer.”

Amazon UK stated in evidence to Fairwork that “standard work” processes in fulfillment centres are necessary to ensure “that every customer gets exactly what they ordered and when they want it” and that this would not be possible if “every associate followed their own process”. Standardisation is, to an extent, an expected feature of warehouse work. However, workers we interviewed noted that technology (e.g. scanners used in “on task”/ “direct” roles) is not simply used to organise the operational workflow, it also enables management to monitor associates.

In the above-mentioned letter to Darren Jones MP, submitted by Amazon UK as part of its evidence to the Business, Energy and Industrial Strategy Committee, the company stated: “we track the rate of



fulfilment task completion (such as stowing, picking and packing) and the total number of working hours contributed by employees to get information of output and productivity of a FC within our network”. The “employees total working time” is stated to include “their time off task” (also referred to as “idle time”) which is described as designating “a period of inactivity on a direct task”. Furthermore, the company stated: “in the event of an issue with individual performance, the employee’s total working time (and therefore, time off task) may be reviewed to examine what is affecting productivity” and “identify coaching and development requirements and opportunities for process improvement”, but that “idle time in itself is not used to measure individual performance targets”.⁵⁹

For workers in our sample, the tracking of idle time, together with their rate, translates into a pervasive feeling of workplace surveillance. In the words of one:

“the managers know how much you’ve scanned and how much like idle time you’ve had and when you’re not scanning, stuff like that, what you scan, where you scan, they know everything.”

We also encountered surveillance-related worker discomfort with the “deep-learning-based computer vision” Nike IDS system mentioned in the background section of this report.⁶⁰ This system, deployed in robotic fulfilment centres⁶¹, aims to enable associates to use two hands to stow products, and captures visual footage of the stowing process to confirm completion. The “defect mitigation system” provides a confidence rating for each stow, and in the case of a “low confidence” rating, when the system cannot fully confirm that the stow was correctly done (such as, when an associate “touches the pod face in different locations when stowing”), the footage of the stow is transferred to be manually audited by data workers outside of the warehouse.⁶² An investigation by the Bureau of Investigative Journalism has identified these manual processing as being done in India and Costa Rica.⁶³ According to Amazon UK, this manual audit by data workers “helps validate when an item has been placed incorrectly”, with information then relayed back to the fulfilment centre in which the associate conducted the stow.⁶⁴

Amazon UK notes that workers are informed that data is being processed abroad.⁶⁵ However, we were unable to confirm that the workers are aware of this data sharing or that data was viewable by data workers outside of the fulfilment centre. As one interviewee told Fairwork researchers, when asked where the footage goes, they said:

“For what I know that we do, I don’t think it goes anywhere, it’s like a record on the system, so in case maybe something happens like, you know safety stuff or whatever, they can just go through it and see what’s there... I don’t know the rest.”

Furthermore, in relation to the tracking described above, it was reported by workers that managers use verbal communication and the negative ADAPT mechanism to discipline them. The interplay between “time off task/idle time” and the ADAPT mechanism was described as such:

“So, you’ve got an idle time bucket attached to your name and every time you haven’t scanned, or you are late back from your break, or you are going to get water, that time adds up, and at the end of the 10 hours, it could be an hour. You know, if you have a bad stomach, you have to go to the toilet three or four times, you’re talking an hour easy, and you’re going to get an ADAPT.”



It was also reported that it was possible to receive a negative ADAPT for not hitting the “rate” or consistently hitting a low rate relative to other associates. With three negative ADAPTs reportedly resulting in a formal warning, this generates significant workplace stress and anxiety, and seems to be creating a workplace culture in which associates push themselves to reach algorithmically determined targets. Furthermore, while much remains unknown about how exactly the ADAPT system functions, Brian Palmer, Amazon’s EU Head of Public Policy Europe, acknowledged in oral evidence provided to the Business, Energy and Industrial Strategy Committee, that associates can be fired for “three productivity flags on the system”.⁶⁶

It was reported by some interviewees that it is possible to explain prolonged inactivity to avoid disciplinary action, as well as to appeal negative ADAPTs at an individual level. However, this was said to be based on the discretion of managers and HR personnel. Moreover, favouritism was raised as a significant worker grievance. Workers noted that the workplace experience was shaped “not by what you know, but who you know” with relationships to management on the warehouse floor significantly shaping opportunities for cross-training (in different departments), promotion, and the chance of being allocated to tasks where the work intensity is more manageable.

In the process of this research, we also observed initiatives implemented by Amazon UK to engage, incentivise and reward associates. This includes events to celebrate national and religious holidays, post “peak” parties and “affinity groups” (i.e. internal groups for associates from different communities⁶⁷). These are welcome initiatives for creating a better working environment. However, the concerns raised in this section and the previous ones indicate that more needs to be done to improve workplace management practices at Amazon.

Fair Representation

Freedom of association is a fundamental right for all workers, enshrined in the constitution of the International Labour Organisation, and the Universal Declaration of Human Rights. The right for workers to organise, collectively express their wishes – and importantly – be listened to, is a prerequisite for fair working conditions. In order to experience fair representation, associates at Amazon would need to be both safeguarded in the independent expression of collective worker voice, and meaningfully consulted over issues impacting them. Our research findings show that this is a major area of concern for Amazon workers. Although these issues predate the deployment of AI and robotics to Amazon warehouses, workers indicate that the ongoing technological transformation of the warehouse has exacerbated its effect, as workers feel more isolated in their day-to-day work tasks. This finding is in line with the fact that several studies have identified collective worker voice as a key mechanism for protecting workers’ interests during periods of change.⁶⁸

What representation there is within Amazon warehouses comes through the Associate Forum, an Amazon-facilitated collective body that claims to express employee voice and enable positive pro-worker change. Amazon UK stated in evidence supplied to Fairwork that Associate Forums are “democratically elected leaders who speak on behalf of all the associates”. They complement Voice of Associate Boards that display questions and suggestions made by employees, and team comments. One of the workers we interviewed acknowledged these initiatives as follows:

“We have team connects. This is where a manager comes and takes a small group and they ask you like, what are things you can see that need to be made better, and you put your ideas forward for that. We have a VOA (Voice of Associates) Board as well, so that is where you get to write on there about issues and someone from HR or management they get back in touch with people.”



Though channels for the expression of worker voice through which workplace issues can be raised, these forums are not meaningfully independent of management. As such, they do not lead to fair representation in and of themselves. Furthermore, in some of the interviews, workers noted that controversial statements or critical questions would be at times deleted from the boards or they would be answered by standard text from the managers and not receive any feedback or actual response. One interviewee noted:

“we’ve got something called like the voice of associate boards, which anyone can just voice their opinions. Basically, I’ve noticed, I used to check it every single day, I’ve noticed that some people used to put things on and it gets deleted, or they get like a generic message off a manager.”

Amazon as a company has a reputation for anti-unionism. In the US, Amazon is arguing that the National Labour Relations Board is unconstitutional, following the Board’s repeated statements about Amazon’s anti-union practices.⁶⁹ Amazon’s relationship with unions in Europe follows a similar pattern, with the company consistently opposing collective bargaining in principle and practice across the continent.⁷⁰ In the UK specifically, this antagonism has a decades-long history. The first UK fulfilment centre opened in Milton Keynes in 1998 and became the subject of a union organising campaign by the Graphical, Paper and Media Union (GPMU) in 2001. The GPMU’s attempt to use a new statutory route to recognition to force a collective bargaining agreement with the employer failed amidst allegations of union busting.⁷¹

The GMB union has experienced a significant increase in membership at a range of sites in the Midlands, particularly Coventry, following a wave of wildcat action in 2022.⁷² In this ongoing campaign, the phrase “we are not robots” has taken centre stage, speaking to issues regarding work intensification that have been raised in this report.⁷³ After announcing a first official strike ballot in September 2022, workers at multiple warehouses have taken over 30 days of strike action.⁷⁴ The union has alleged that Amazon has responded with a range of anti-union measures, including: hiring large numbers of new workers to dilute union membership in the bargaining unit and making the statutory route to collective bargaining more arduous; reducing the working hours of key union activists; distributing anti-union literature in the workplace; and threatening to withhold wage rises from workers at striking sites.⁷⁵ One interviewee described how, following their participation in a strike, a manager pointedly brought their attention to an anti-union leaflet:

“One of my leads said, ‘Oh, have you seen this leaflet on the table?’ And I go, ‘What leaflets?’ He goes, ‘It’s basically -- you scan this barcode and it tells you a bit more about the union, and if you want to leave the union you can do it by using this barcode’... they’ve also been saying, like, ‘GMB doesn’t give you this. GMB doesn’t give you that, but this is what we provide, we give you this, we give you that, the GMB don’t do that’”.

Beyond the already-reported measures discussed above, our research has identified a sentiment that company disciplinary processes such as negative ADAPTs can and are being used to victimise workers who are perceived to be opposing management. Some interviewees explicitly explained their decision to join the GMB union in light of what they perceived to be the arbitrary use of disciplinary authority by management; they hoped that by becoming union members, they might avoid being unfairly targeted.

“They have so many different error codes that they can use against you. I just keep my head down and try not to give any excuses to use against me...because if they want to get rid of you, they will find a way on pumped up charges.”



Giving evidence to the UK Parliamentary Business, Energy and Industrial Strategy Committee in 2022, Brian Palmer, reiterated the firm's position that: "We respect the right of our employees to join a union. We have always supported that right. At this time, no union represents an Amazon site in the UK, but we are entirely supportive of the right of our people to join a trade union".⁷⁶ However, our conversations with workers and GMB organisers indicate that the situation is not that straightforward. Indeed, during the writing of this report, on 26 April 2024, the GMB union announced that they have filed legal proceedings against the company in response to its anti-union drive; specifically, for having:⁷⁷

- *"Pressured staff to leave the union. Company bosses have erected QR codes in Amazon fulfilment centres which generated an email to the union's membership department requesting that membership be cancelled.*
- *Forced workers to attend hour-long anti-union seminars. Led by senior company managers, these briefings forced workers to listen to anti-union messages during work time.*
- *Displayed anti-union messages throughout Amazon workplaces, including on billboards and screens.*
 - *Bullied and intimidated union representatives amongst Amazon staff.*

Conclusion

Amazon is a sprawling global megacorporation reportedly employing 75,000 people in the UK, and as such, is one of the UK's top 10 private-sector companies.⁷⁸ This report focuses specifically on the fairness of work for associates in Amazon's UK warehouses, and how their work is being transformed through the deployment and use of AI systems and robots. As such it provides significant insights about how AI-mediated work is being experienced and lived in the warehousing sector. The concerns flagged in this report are not speculative future risks, but rather the real and concrete problems faced by warehouse associates in their everyday working lives here and now.

The single greatest challenge identified in this report is that of work intensification, and workers feeling the need to work like robots. However, the negative consequences of AI deployment are not just limited to the question of work intensification. As this report finds, the productivity gains associated with automation are not being redistributed to all stakeholders as Amazon's associates continue to be paid within a narrow threshold around the living wage. This comes at a time when inflation has led to many workers feeling acute financial pressure on their ability to make ends meet. Consequently, numerous workers we spoke to indicated that they are finding themselves having to regularly work 60-hour weeks or moonlight in second jobs. Contractual insecurities, obscure and intensified performance targets, and excessive surveillance further add to the pressures workers experience on the job. Workers also reiterated the need for more collective representation in the workplace.

The key finding of the report is that AI deployment in the workplace goes beyond the specific technologies that are being introduced to replace manual tasks or make them more efficient. Rather, a lot more is at stake. A significant transformation of industrial relations is happening, and this impacts all stakeholders in the supply chain: workers, consumers, companies, regulators and policymakers. It is thus key to explore how that technology is changing the overall operational infrastructure. Such a perspective involves asking at each step essential questions about power, agency, interest,



accountability and ability to reverse or remove the technology from the system. Otherwise, we risk building an extremely opaque system with harmful outcomes for workers.

In closing, we would like to remind the readers that the issues raised in this report are not exclusive to workers within Amazon's UK warehouses but are instead reflective of the experiences of workers in the broader AI supply chain. Fairwork will continue analysing the working conditions for data workers in the AI supply chain in 2024.



Appendix A: Fairwork AI Principles

1. Fair Pay

1.1 Pays at least the local minimum wage (one point)

To achieve this point, the employer takes appropriate steps to ensure ALL of the following:

- Workers, regardless of their employment status or contract type, must earn the local minimum wage⁷⁹ or the wage set by collective sectoral agreement (whichever is higher) for all hours worked.⁸⁰
- Workers, regardless of their employment status or contract type, are paid on time and in full.

1.2 Pays at least the local living wage (one point)

Minimum wage can be insufficient to ensure workers and their dependents a basic but decent standard of living. The living wage exists to set the benchmark of what is required to enable this decent standard of living.⁸¹

To achieve this point, the employer takes appropriate steps to ensure the following:

- Workers, regardless of their employment status or contract type, must earn at least the living wage, or the wage set by collective sectoral agreement (whichever is higher) for all hours worked.

2. Fair Conditions

2.1 Ensures safe working conditions (one point)

Workers face several risks in the course of their work, including strain, exhaustion, and exposure to traumatic content. They have a right to protection from these risks.⁸² Employers must show they are aware of task specific risks and take steps to mitigate them.

To achieve this point, the employer must satisfy ALL of the following:

- Implement policies and practices that protect workers' safety from task specific risks. This should, at a minimum, account for well-evidenced risks such as:
- High job strain, which can lead to a range of negative health impacts including cardiovascular disease and mental health disorders.
- Secondary traumatic stress, which can be associated with repeated exposure to traumatic content.
- Muscular skeletal injuries, which may emerge as a result of unsuitable equipment, excessive workload or perverse incentivisation in physical jobs.
- Risks related to a specific job are flagged to workers before they accept the job (such as indicating that they might be exposed to violent content.)
- The employer places a maximum limit on standard working time that meets either the applicable national regulation or, in cases where there is no applicable national regulation, the ILO standard of 40 hours a week.⁸³



- Workers are entitled to take breaks during working time that is defined under the applicable national regulation, or in cases where there is no applicable national regulation, is equivalent to a minimum of one hour for every eight hours worked.
- If the work arrangements require workers to work in shifts, workers are given the option to choose their shifts, and reasonable accommodations are made for workers with additional needs due to health, safety and other personal reasons (such as pregnancy, care requirements, disability and other health conditions.)

2.2 Ensures paid leave, and a safety net (one point)

Workers are vulnerable to the possibility of losing their income as the result of unexpected or external circumstances, such as sickness or injury. Most countries provide a social safety net to ensure workers don't experience sudden poverty due to circumstances outside their control. However, not all workers might qualify for the social safety protections due to their own personal circumstances (e.g. visa status, residency status). In recognition of the fact that most workers are dependent on income they earn from the work, employers must ensure that workers are compensated for loss of income due to inability to work. In addition, employers must minimise the risk of sickness and injury.

To achieve this point, the employer must ensure ALL of the following:

- Workers have access to paid time-off (such as bereavement, parental, sick and annual leave.)

Where core medical treatment is not provided by a public system, such as a national healthcare scheme, the employer makes a meaningful provision to the health care costs of its workers.

3. Fair Contracts

3.1 Provides decent contracts (one point)

Employment on temporary contracts can have significant negative effects on job satisfaction, well-being and health. Short-term contracts, such as those lasting one to three months or with no guaranteed working hours, place workers in precarious positions and are likely to exacerbate these negative effects.

To achieve this point, the employer must meet ALL of the following:

- Workers must sign a contract and/or give informed consent to terms of conditions upon signing up, and for each subsequent contract extension.
- The contract or terms and conditions is presented in full, in clear and comprehensible language that all workers could be expected to understand.
- The contract or terms and conditions are easily accessible to workers in paper and/or electronic form. If these conditions differ for different contract types, reasonable steps are taken to inform workers about the differences in contract types.
- The party employing the worker must be identified in the contract or terms and conditions, and subject to the law of the place in which the worker works.
- Workers working on long-term projects that exceed the probation time are provided with the option to sign an employment contract lasting at a minimum the same length of time as the project.



- The contracts or terms and conditions do not include clauses that revert prevailing legal frameworks in the countries where workers work.

3.2 Provides secure employment (one point)

Whilst fixed-term employment may be suitable for some workers' circumstances, secure employment is a fundamental improvement of working conditions for many others.

To achieve this point, the employer must meet ALL of the following:

- Workers with three years or more of consistent short-term employment should be provided with the option to move onto permanent contracts if they so desire.
- The employer should make reasonable adjustments in wages and conditions between both: fixed-term and permanent employees and outsourced workers; and any outsourced or indirectly employed workers and directly employed workers. Workers who are outsourced or indirectly employed should be compensated for additional costs incurred, including visa/work permits and their extensions, insurance, pensions, and other social security premiums.
- In cases of justified redundancy or contract non-renewal, the employer should provide workers with severance allowance commensurate with tenure at the company and retraining opportunities. In cases where the redundancies are being made because reasons of an economic, technological, structural or similar nature, workers or their representatives are consulted, and steps are taken to minimise the resulting redundancies.⁸⁴ If desired, workers should be able to invite worker representatives to their end of contract meetings with the relevant HR departments.

In the case of subcontracting arrangements, where part or all of the work is subcontracted to other companies, management implements a reliable mechanism to monitor and ensure that the subcontractor is living up to the standards expected from the company itself regarding working conditions.

4. Fair Management

4.1 Treats workers fairly (one point)

The employment relation is an unequal one, with managers being afforded significant legal and economic sources of power not available to most workers. The interests of these two groups may diverge, leading to sometimes opposed immediate interests in the workplace. This dynamic can lead to unfair management practices.

To achieve this point, the employer must meet ALL of the following:

- Management should refrain from deploying any form of depersonalised bullying or mobbing in order to ensure organisational goals are met.⁸⁵
- There is a policy in place which guarantees that any form of harassment in the workplace will not be tolerated.
- There is a policy in place which guarantees that the employer will not discriminate against persons on the grounds of racial, ethnic, social or minority background, caste, religion or belief, political or any other opinion, language, gender, gender identity, sex, sexual orientation, disability, age, geographical location, or any other status.
- Workers should have the right to appeal dismissals and other disciplinary measures.



- Workers are not disadvantaged for voicing concerns or appealing disciplinary actions.

4.2 Creates clear and effective systems for data management, explanations, and appeals (one point)

Contemporary workplaces are increasingly defined by data. The use of AI systems and automated management processes exacerbates both the incentives for employers to gather data from the work process and diminishes the importance of workers' existing rights to receive explanations, appeal decisions, and access/own their data.

To achieve this point, the employer must meet ALL of the following:

- Where AI systems are involved in work, employers must create explainability mechanisms such as transparency reports or question and answer processes that allow workers to understand both the model behaviour of the system as a whole and specific decisions.⁸⁶
- Workers must be able to appeal decisions made by AI systems through a multi-stakeholder process that reflects collective worker voice, and successful appeals to lead not only that specific decision being revised but also wider revisions of decision-making process.⁸⁷
- Management avoids excessive surveillance in the workplace, and avoids use of invasive technologies.
- Workers must not be subject to excessive data collection practices and should be informed about the data that is being collected about them. Employers must apply the principle of data minimisation (collecting the minimum amount of personal data required to fulfil a legitimate purpose) in their collection processes.

5. Fair Representation

5.1 Assures freedom of association and the expression of worker voice (one point)

Freedom of association is a fundamental right for all workers, and enshrined in the constitution of the International Labour Organisation, and the Universal Declaration of Human Rights. The right for workers to organise, collectively express their wishes – and importantly – be listened to, is an important prerequisite for fair working conditions.

To achieve this point, the employer must satisfy ALL of the following:

- There is a documented mechanism for the expression of collective worker voice that allows ALL workers, regardless of contract type or duration to participate in collective groups without risks.⁸⁸
- There is a formal, written statement of willingness to recognise, and bargain with, a collective, independent body of workers or trade union, that is clearly communicated to all workers, and available on the company webpage.⁸⁹
- Freedom of association is not inhibited, and workers are not disadvantaged in any way for communicating their concerns, wishes and demands to the company management, or expressing willingness to form independent collective bodies of representation.

5.2 Supports democratic governance (one point)



To realise fair representation, workers must have a say in the conditions of their work. This could be through a democratically governed cooperative model, a formally recognised union, or the ability to undertake collective bargaining with the employer.

To achieve this point, the employers must satisfy at least ONE of the following:

1. Workers play a meaningful role in governing the company.
2. In a written document available, the company publicly and formally recognises an independent collective body of workers, an elected works council, or trade union, and takes meaningful steps towards signing a collective bargaining agreement. This recognition is not exclusive and, when the legal framework allows, the company should recognise any significant collective body seeking representation.⁹⁰



Appendix B: Amazon UK's response to Fairwork

1. What are the working definitions of AI, and robotics at Amazon? Can you tell us about Amazon's vision of warehouses of the future?

AI is the field of computer science dedicated to solving cognitive problems commonly associated with human intelligence, such as learning, creation, and image recognition. Modern organizations collect large volumes of data from diverse sources like smart sensors, human-generated content, monitoring tools, and system logs. The goal with AI is to create self-learning systems that derive meaning from data. Then, AI can apply that knowledge to solve new problems in human-like ways. For example, AI technology can respond meaningfully to human conversations, create original images and text, and make decisions based on real-time data inputs. More information can be found [here](#). Regarding our vision for a 'warehouse of the future', more information can be [found here](#).

2. What kinds of robotic solutions and AI-based technologies / systems have been integrated into Amazon Robotic Fulfilment Centres in the UK? Please provide specific examples of technologies and their use cases to help us understand what kinds of problems the technologies are solving, what kinds of improvements they are making to the overall warehouse operations and management. Are these technologies different to those integrated into Fulfilment Centres in other countries where Amazon operates? If yes, how?

Some examples of robotics technology used in the UK are: Supply Chain Optimization Technology (SCOT). SCOT transforms our massive data sets into predictive intelligence, telling us what inventory to buy, where to store it, how to pick it and ship it. It both forecasts demand and coordinates warehouse operations. It's like a master conductor leading an orchestra of millions. SCOT helps us manage a supply chain that consists of millions of sellers. It helps them manage their own inventory and smooths the flow of goods from vendors to Amazon. It helps inform the number of seasonal Amazon associates needed by region and assists in finding the optimal route for moving inventory from suppliers to the customer's doorstep.

Fulfillment Operating System (FOS): FOS simulates, optimizes and choreographs the movement of each of those orders. The computer vision in these robotic systems is developed using generative AI models and synthetic data.

Robotic arms (Robin): We are constantly advancing the science of robotics, adding new capabilities through the application of advanced AI. For example, most robotic arms do one thing only and work in a controlled environment. Basically they follow a standard script. But Amazon has designed and built a robotic arm called Robin that is constantly learning and adapting, performing a wide variety of picking and sorting tasks for millions of different items. Robin can identify and grab items with a variety of packaging. It may be picking cardboard boxes, plastic packages, or paper envelopes. We currently use more than 1,000 Robin robotic arms across our fulfillment centers to help sort customer packages.

Robots (Proteus): This is a powerful robot that can move 800-pound carts around a fulfillment center without being confined or restricted to a particular area. That's because it navigates through Amazon's facilities using our advanced safety, perception, and navigation technology, using light, sound and movement to communicate its intent to our associates.

3. What are the biggest risks for associates that arise from the introduction of automation and AI-based technologies / systems (such as the Robotic Pick / Stow and associated Nike System, etc.) and how is Amazon seeking to mitigate those risks?

Like any other technology, most of the risks are not inherent to technologies themselves, but in their usage. Amazon prides itself on being a responsible user of AI. Any technology we



design is intended to create a better work environment, augmenting and supporting our people. In our fulfilment and logistics operations, we use software and hardware to automate the most difficult and repetitive tasks, reducing mental and physical stress for workers. The use of state-of-the-art robotics has cut down on walking time in our Fulfilment Centres, increased operational efficiency, whilst also creating a need for more skilled jobs such as engineers to operate and maintain the advancements. More information can be found [here](#). We are open and transparent with our employees about use of our systems in order to ensure that the technology is used effectively and in the interest of our customers.

The health and safety of all our employees is our top priority. Health and Safety Executive data published in 2021 showed Amazon had more than 40% fewer injuries (reported RIDDOR incidents) on average than other transportation and warehousing businesses; in 2022, it was more than 50% fewer injuries than other transportation and warehousing businesses. A warehouse can only open once 2,500 safety checks have been carried out. All machinery, robotics and equipment are regularly tested – in 2022 we undertook over 350,000 safety compliance inspections to ensure our sites are absolutely safe for our employees.

4. We were told that MAN3 is a two-human-touch Amazon Robotics Fulfilment Centre during our visit. At what point in the process does human touch take place (we observed workers stowing and picking) and how does this differ from manual Fulfilment Centres?

AR (Amazon Robotics) Fulfilment Centres differ from manual FCs in that they could contain AR technology to assist with the operations (such as help stow, pick and/or sort inventory). The main difference is that the technology brings the products to personnel onsite reducing walking distance. The specific mix of technology used can differ between sites. Manual FCs do not contain AR technology but may instead contain other technologies designed to simplify the customer fulfilment process.

5. We understand that Team Leads (TL) in Amazon Robotic Fulfilment Centres wear 'Tech Vests' that enable the mobile robots to know where the TL is. Can you explain how this technology works, and whether there are any other measures to increase safety?

To ensure everyone's safety, strict rules govern who can access the robots. A 'Cerberus Vest', which is an AI-powered safety vest which connects to a tablet that displays the exact location of all the robots on the floor. The tech vests are not for identification of "team leads" but to ensure the individual's safety. If a robot comes within 8 meters of someone wearing the vest, it is programmed to slow down, change course, or even stop completely. This ensures the safety of everyone involved and minimises the risk of accidents.

Team Leads are permitted to enter this area as they are trained to use the technology in a safe manner. The Team Leads who are permitted to enter the area are given extensive training which consists of i) a 75 minute classroom training session; ii) a 30 minute skills assessment and iii) 190 minute practical training 1-1 with an instructor. This is followed up with regular refreshers.

6. What kind of metrics are used to evaluate the performances of associates and through which technologies are these metrics captured in Amazon Robotic Fulfilment Centres? For instance, how are associate performance targets calculated and at what level (e.g. individual, departmental, sectional, FC-level). How are workers informed, trained and supported to perform well against the metrics?



Like any business, we have performance expectations for our team, but they're based on safe and achievable goals that take into account time and tenure, peer performance, as well as safe work practices. We do not have fixed quotas for performance. We look at the performance that employees are naturally setting and then set the expectations from there with a focus on safety. To reiterate, we are clear with managers that productivity or speed should never be pressed at the expense of safety or quality. Further information can be found in submissions made to the former BEIS Select Committee [here](#).

- 7. We have been told that associates have individual performance targets, but that Amazon no longer communicates them to the workers. However, we observed that workers can track how well they are performing against other workers via the FC Games. Can you tell us a bit about these targets, why they are no longer communicated and the introduction of FC games?**

FC Games is an entirely optional user engagement platform that provides video game experiences for associates to opt to use while they work. The goal of FC Games is to provide FC associates with an experience that makes work more fun, leading to increased engagement, motivation, and job satisfaction. The program remains completely optional for employees; they can switch in or out of different games depending on their preference, can play anonymously, or not play at all—the choice is theirs. It is not used at all by a manager to look at performance metrics.

- 8. Can you tell us about the low confidence images and how the issues related to them are solved during the operations? How are associates working in robotic pick and stop informed about the technologies and supported when things do not go as planned?**

FC systems generate a “confidence” rating for each stow. A “low confidence” stow (triggered for example when an employee touches the pod face in different locations when stowing) will be manually audited by an Operations Team. The team helps validate when an item has been placed incorrectly. If the system triggers a low confidence rate, the team review camera footage and determine where there has been a product incorrectly placed. This information is then relayed back to the relevant FC to resolve the issue by, for example, having the site team review the bin making sure the product placement is corrected. In instances of human mistakes resulting in errors in the stow process, on-site training staff may provide supportive coaching to help reduce occurrences of items being misplaced.

- 9. When touring MAN2 we were informed that associates will be nudged by their screen to perform a stretch for the benefit for ergonomic safety (equating to a 30 second break per hour), which will be monitored by the screen. Could you explain the technology behind this process and how it works?**

This is part of a broader health and safety program called ‘working well’, further details of which can be found [here](#) and [here](#).

- 10. Finally, can you explain the process for introducing a new robotic solution or AI-based technology / system into a Fulfilment Centre? How are workers informed, trained and kept in the loop?**

This [article summarises](#) what the adoption process looks like and the theory behind it. Every associate and manager receives training of several hours on new technology that is introduced into our buildings. The training is a blend of in application (on screen) content and face to face support with an instructor.



We're committed to ensuring our employees have the resources and training they need to perform their jobs safely, as well as the support they need to advance their careers and maintain good mental health. Any time we introduce new technology to our sites, we need to rigorously train our employees to ensure they're comfortable working alongside it.

Roles we train for include, for example, robotics floor monitors and technicians. Employees in these roles help facilitate the safe operation of mobile robots that move inventory across our buildings. We also hire reliability maintenance engineers who help keep all of the technology running at our sites. These roles require skills training in mechatronics and robotics, and we have programmes in place to offer the industry certifications and skills training that employees need to transition onto these teams.



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Endnotes

- ¹ 'Associate' and 'worker' are used interchangeably throughout this report.
- ² Amazon Jobs (n.d.) *Warehouse Operative*. Available at: <https://www.jobsatamazon.co.uk/associate-roles/warehouse-operative/> (Accessed: 15 March 2024).
- ³ Greene, J. (2021) 'Amazon's employee surveillance fuels unionization efforts: 'It's not prison, it's work'', *The Washington Post*, 2 December. Available at: <https://www.washingtonpost.com/technology/2021/12/02/amazon-workplace-monitoring-unions/> (Accessed: 14 February 2024).
- ⁴ In this report, we refer to global operations of Amazon as "Amazon", specific operations in the UK as Amazon UK.
- ⁵ This is based on evidence supplied to Fairwork by Amazon UK.
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- ⁹ This is based on evidence supplied by Amazon UK to Fairwork.
- ¹⁰ Fairwork AI project has received approval from the University of Oxford Central University Research Ethics Committee (SSH_OII_CIA_23_079).
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- ¹⁶ Prime Now Hubs are smaller one-day facilities that stock products in high demand for rapid regional delivery. MWPVL International provides an incomplete, yet comprehensive overview of Amazon's global distribution Network. See: MWPVL International (2024) 'Amazon Global Supply Chain and Fulfilment Centre Network', *MWPVL International*, n.d. Available at: https://www.mwpvl.com/html/amazon_com.html (Accessed: 23 April 2024); The importance of shortening the distance to customers is noted by Sarah Mathews. See: The Wall Street Journal (2023) *Inside Amazon's Meticulous Same-Day Delivery Strategy*.
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²⁷ This is based on evidence supplied by Amazon UK to Fairwork.

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³⁵ This report focuses on the working conditions on the warehouse floor, and not the logistics of delivery. Further information on Fairwork’s analyses on the logistics sector, including Amazon Flex, could be found in previous Fairwork UK reports.



³⁶ The “Make Amazon Pay” coalition, which brings together over 80 unions, civil society organisations and NGOs from across the world, has centred paying workers fairly as a key demand. Strikes related to pay have been documented in Germany, the US, the UK, Bangladesh and several European countries. See: Uni Global Union (2023) ‘New Wave of “Make Amazon Pay” Strikes and Protests on Black Friday in Over 30 Countries’, *Uni Global Union*, 24 November. Available at: <https://uniglobalunion.org/news/makeamazonpay2023/> (Accessed: 23 April 2024). See also: Butler, S. (2022) ‘GMB Calls for £15 an hour minimum pay at Amazon warehouses in the UK’, *The Guardian*, 9 August. Available at: <https://www.theguardian.com/technology/2022/aug/09/gmb-calls-for-15-an-hour-minimum-pay-at-amazon-warehouses-in-uk> (Accessed: 23 April 2024); Partington, R. (2018) ‘Amazon raises minimum wage for US and UK employees’, *The Guardian*, 2 October. Available at: <https://www.theguardian.com/technology/2018/oct/02/amazon-raises-minimum-wage-us-uk-employees> (Accessed: 23 April 2024).

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⁴⁵ In ‘From Body Mechanics to Mindfulness’ (2021) it is stated that “aspects of WorkingWell piloted in the U.S. in 2019, and the program has since expanded to 859,000 employees at 350 sites in North America and Europe.”



- ⁴⁶ Amazon (2021) 'From Body Mechanics to Mindfulness'.
- ⁴⁷ We understand that workers are technically permitted from recording their work. As such, the specific video from which this was taken will not be linked to.
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- ⁴⁹ Workers in our sample also said that they may get notified and potentially receive a negative ADAPT if they are in the bottom 25%.
- ⁵⁰ This notion has also emerged in previously conducted academic research about Amazon. See Vallas, S. et al. (2022) *Prime Suspect: Mechanisms of Labor Control at Amazon Warehouses*, p. 432.
- ⁵¹ The WorkingWell pamphlet leaked by *Vice* comments on the need to walk extensive distances in certain roles stating that "some positions will walk up to 13 miles a day." See: Ongweso, E. Jr. (2021) 'Amazon Calls Warehouse Workers Industrial Athletes'. Previous research has also recalled this challenge. See: GMB Union (2018) *GMB Union Report on Amazon*. Available at: https://www.etui.org/sites/default/files/ez_import/working-in-a-modern-day-amazon-fulfilment-centres-in-the-uk.pdf (Accessed: 26 March 2024).
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- ⁵⁴ For more information on Amazon A to Z see: Gangadharan, Seeta Peña, et al. (2023) *Tracked & Targeted: Navigating Worker Surveillance at Amazon*, p. 26. Available at: <https://www.odaproject.org/wp-content/uploads/2024/01/Tracked-and-Targeted.pdf> (Accessed: 12 March 2024).
- ⁵⁵ McClenaghan, M. et al. (2021) 'Amazon's empty pledge leaves agency workers without shifts and pay', *The Bureau of Investigative Journalism*, 18 February. Available at: <https://www.thebureauinvestigates.com/stories/2021-02-18/amazons-empty-pledge-leaves-agency-workers-without-shifts-and-pay/> (Accessed: 22 April 2024).
- ⁵⁶ In written evidence to the BEIS Committee inquiry into Post-pandemic economic growth: UK labour markets, Amazon stated "we are in the process of reducing our reliance on third party agency workers by offering fixed term contracts to manage fluctuations in work throughout the year". See: Amazon (n.d.) *Written submission from Amazon (ULM0086): Amazon's response to the BEIS Select Committee inquiry into the UK Labour Market*. Available at: <https://committees.parliament.uk/writtenevidence/109917/pdf/> (Accessed: 22 April 2024).
- ⁵⁷ In October 2023, for example, Amazon.co.uk announced that it would be "hiring 15,000 employees for the festive season". See: Amazon Staff (2023) 'Amazon further increases pay for UK operations employees and is hiring 15,000 employees for the festive season'.
- ⁵⁸ Mercer (2023) *Written submission from Amazon (ULM0120)*.
- ⁵⁹ Mercer (2023) *Written submission from Amazon (ULM0120)*.
- ⁶⁰ AWS (2022) 'Amazon Robotics Uses Amazon SageMaker and AWS Inferentia to Enable ML Inferencing at Scale', AWS, n.d. Available at: <https://aws.amazon.com/solutions/case-studies/amazon-robotics-case-study/> (Accessed: 25 April, 2024).
- ⁶¹ Amazon UK (n.d.) *Written evidence from Amazon UK (ULM0119): Amazon response to evidence from the Bureau of Investigative Journalism on Warehouse Surveillance and the Nike system*.
- ⁶² Amazon UK (n.d.) *Written evidence from Amazon UK (ULM0119): Amazon response to evidence from the Bureau of Investigative Journalism on Warehouse Surveillance and the Nike system*.
- ⁶³ McIntyre and Bradbury (2022) 'The eyes of Amazon: a hidden workforce driving a vast surveillance system'; Bureau of Investigative Journalism (n.d.) *Written submission from the Bureau of Investigative Journalism (ULM0118): Amazon warehouse surveillance and the Nike System*.



⁶⁴ Evidence on the Nike IDS system submitted by Amazon UK to the Business, Energy and Industrial Strategy Committee can be found here: Amazon UK (n.d.) *Written evidence from Amazon UK (ULM0119): Amazon response to evidence from the Bureau of Investigative Journalism on Warehouse Surveillance and the Nike system*. It should be noted that, following the receipt of that evidence, Darren Jones MP, the Chair of the Committee, sent an email to Katherine Mercer (Head of Public Policy, UK Operations) on the 24th of March 2023, to express the dissatisfaction of the Committee about “the failure of Amazon to be proactive in explaining the use of CCTV and associated AI systems to track your staff in Amazon warehouses” with specific reference to the Nike Intent Detection System. The Nike system was described as follows by Jones: “The Nike CCTV system is the use of technology for the purpose of surveillance of workers, whether it is used primarily to help employees with the product stowing process, or to provide managers with data on errors and other aspects of performance.” Katherine Mercer then responded to this on the 17th of April 2023. Both letters have published. See: Jones, D. (2023) Email to Katherine Mercer, Head, Public Policy, UK Operations, 24 March. Available at: <https://committees.parliament.uk/publications/39046/documents/191970/default/> (Accessed: April 14 2024); Mercer, K. (2023) Email to Darren Jones, MP, Chair, BEIS Select Committee, 17 April. Available at: <https://committees.parliament.uk/publications/39047/documents/191972/default/> (Accessed: April 14 2024).

⁶⁵ Information related to this is listed in the “Transparency to employees” section in written evidence provided to the Business, Energy and Industrial Strategy Committee for the inquiry into post-pandemic economic growth: UK labour markets. See: Amazon UK (n.d.) *Written evidence from Amazon UK (ULM0119): Amazon response to evidence from the Bureau of Investigative Journalism on Warehouse Surveillance and the Nike system*.

⁶⁶ Brian Palmer, Head of Public Policy Europe, Amazon, provided oral evidence to the Business, Energy and Industrial Strategy Committee on November 15, 2022. He was asked by the Chair, Darren Jones MP (Question 106): “It is really important that you answer the answer I am asking you. If someone has three productivity flags on the system, can they be fired at that point?”. In response, he answered: “Yes”. See: Business, Energy and Industrial Strategy Committee (2022) *Oral evidence: Post-pandemic economic growth: UK labour markets, HC 306*. Available at: <https://committees.parliament.uk/oralevidence/11557/pdf/> (Accessed: March 14 2024).

⁶⁷ There are 13 affinity groups according to Amazon.co.uk. See: Amazon (n.d.) *Diversity, Equity, and Inclusion*. Available at: <https://www.aboutamazon.co.uk/workplace/diversity-equity-and-inclusion> (Accessed 27 April 2024).

⁶⁸ GPAI (2022) *AI for Fair Work: AI for Fair Work Report*. Available at: <https://fair.work/en/fw/publications/ai-for-fair-work-report/> (Accessed: 25 April 2024); GPAI (2023) *AI for Fair Work: From principles to practices*. Available at: https://gpai.ai/projects/future-of-work/FoW2_AI%20Fair%20Work%20.pdf (Accessed: 25 April 2024).

⁶⁹ Haleluya, H. (2024) ‘Amazon Argues That National Labor Board Is Unconstitutional, Joining SpaceX and Trader Joe’s’, AP News, 16 February. Available at: <https://apnews.com/article/amazon-nlr-unconstitutional-union-labor-459331e9b77f5be0e5202c147654993e> (Accessed: 16 April 2024); Greenhouse, S. (2023) “‘Old-School Union Busting’: How US Corporations Are Quashing the New Wave of Organizing”, The Guardian, 26 February. Available at: <https://www.theguardian.com/us-news/2023/feb/26/amazon-trader-joes-starbucks-anti-union-measures> (Accessed: 16 April 2024).

⁷⁰ Boewe, J. and Schulten, J. (2019) The Long Struggle of the Amazon Employees. Available at: <https://www.rosalux.de/en/publication/id/8529/the-long-struggle-of-the-amazon-employees> (Accessed: 17 April 2024).

⁷¹ Gall, G. (2004) ‘Union Busting at Amazon.Com in Britain’, *Indymedia*, 21 January. Available at: <https://www.indymedia.org.uk/en/2004/01/284179.html> (Accessed: 22 April 2024).

⁷² Cant, C. (2022) ‘Mapping the Amazon Strikes’, *Notes From Below*, 22 August. Available at: <https://notesfrombelow.org/article/mapping-amazon-strikes> (Accessed: 22 April 2024).



⁷³ GMB Union (n.d.) *The Campaign So Far*. Available at: <https://www.gmb.org.uk/amazon/the-campaign-so-far> (Accessed: 17 April 2024).

⁷⁴ GMB Union (2024) 'Dates announced as Amazon workers begin fresh wave of Industrial Action', *GMB Union*, 8 February. Available at: <https://www.gmb.org.uk/news/newdates-announced-as-amazon-workers-begin-fresh-wave-of-industrial-action> (Accessed: 2 April 2024).

⁷⁵ Smythe, P. (2023) 'Amazon Accused of Union-Busting at Striking UK Workplaces', *Novara Media*, 18 July. Available at: <https://novaramedia.com/2023/07/18/amazon-accused-of-union-busting-at-striking-uk-workplaces/> (Accessed: 22 April 2024); Smythe, P. (2024) 'Amazon Warehouse in Chaos Due to Union-Busting "Dirty Tricks"', *Novara Media*, 28 February. Available at: <https://novaramedia.com/2024/03/28/amazon-warehouse-in-chaos-due-to-union-busting-dirty-tricks/> (Accessed: 22 April 2024); Stewart, H. (2023) 'GMB Halts Bid for Official Amazon Union Claiming Firm Skewed Staff Numbers', *The Guardian*, 8 June. Available at: <https://www.theguardian.com/technology/2023/jun/08/gmb-halts-bid-for-official-amazon-union-claiming-firm-skewed-staff-numbers> (Accessed: 22 April 2024); Stewart, H. (2024) 'Amazon Accused of Using "Union-Busting" Tactics at Midlands Warehouses', *The Guardian*, 8 February. Available at: <https://www.theguardian.com/technology/2024/feb/08/gmb-accuses-amazon-union-busting-tactics-midlands-warehouses> (Accessed: 22 April 2024).

⁷⁶ Business, Energy and Industrial Strategy Committee (2022) *Oral evidence: Post-pandemic economic growth: UK labour markets*, HC 306. See specifically: Question 112.

⁷⁷ GMB Union (2024) 'Amazon faces legal challenge over workers' rights revelations', *GMB Union*, 26 April. Available at: <https://www.gmb.org.uk/news/amazon-faces-legal-challenge-over-workers-rights-revelations> (Accessed: 27 April 2024).

⁷⁸ D, James. (2024) 'Amazon workers at UK warehouse strike again over pay, union recognition', *Reuters*, 19 March. Available at: <https://www.reuters.com/world/uk/amazon-workers-uk-warehouse-strike-again-over-pay-union-recognition-2024-03-19/> (Accessed 24 April 2024).

⁷⁹ The ILO defines minimum wage as the "minimum amount of remuneration that an employer is required to pay wage earners for the work performed during a given period, which cannot be reduced by collective agreement or an individual contract." Minimum wage laws protect workers from unduly low pay and help them attain a minimum standard of living. The ILO's Minimum Wage Fixing Convention, 1970 C135 sets the conditions and requirements of establishing minimum wages and calls upon all ratifying countries to act in accordance. Minimum wage laws exist in more than 90 per cent of the ILO member states.

⁸⁰ This means not only that the rate of pay agreed with workers reaches that statutory level, but also that workers are accurately compensated for all hours worked. Underpayment (also known as 'wage theft') is a pervasive problem, with evidence suggesting that huge sums of value go unpaid due to unpaid overtime, and incomplete/inaccurate wage payments.

⁸¹ Where a living wage does not exist, Fairwork will use the Global Living Wage Coalition's Anker Methodology to estimate one.

⁸² The ILO recognises health and safety at work as a fundamental right. Where the platform directly engages the worker, the starting point is the ILO's Occupational Safety and Health Convention, 1981 (C155). This stipulates that employers shall be required "so far as is reasonably practicable, the workplaces, machinery, equipment and processes under their control are safe and without risk to health", and that "where necessary, adequate protective clothing and protective equipment [should be provided] to prevent, so far as is reasonably practicable, risk of accidents or of adverse effects on health."

⁸³ As endorsed by the ILO's Forty-Hour Week Convention, 1935 (No.47) and the Reduction of Hours of Work Recommendation, 1962 (No.116)

⁸⁴ The ILO Termination of Employment Convention, 1982 (No. 158) defines worker representative consultation as sufficient when the employer provides "the workers' representatives concerned in good time with relevant information including the reasons for the terminations contemplated, the number and categories of workers likely to be affected and the period over which the terminations are intended to be carried out" and gives "in accordance with national law and practice, the workers' representatives concerned, as early as possible, an opportunity for consultation on measures to be taken to avert or to minimise the terminations and measures to mitigate the adverse effects of any terminations on the workers concerned such as finding alternative employment."



⁸⁵ Depersonalized bullying is a form of workplace mistreatment where employees are unfairly treated not because of who they are, but because of the organization's system or structure, constitutes a situation where harmful behaviour, like intimidation or aggression, are applied impersonally across the workforce by supervisors or managers in the name of achieving company goals.

⁸⁶ Workers have a right to understand how the use of AI impacts their work and working conditions. Organisations must respect this right and provide detailed, understandable resources to allow workers to exercise it.

⁸⁷ The automation of decision making can lead to reductions in accountability and fairness. But building in human oversight into a decision-making loop does not solve this problem. Instead, the subjects of those decisions need to be empowered to challenge them, and a renewed emphasis should be placed on the liability of those stakeholders who direct the development and deployment of AI systems in the workplace.

⁸⁸ A mechanism for the expression of collective worker voice will allow workers to participate in the setting of agendas so as to be able to table issues that most concern them. This mechanism can be in physical or virtual form (e.g. online meetings) and should involve meaningful interaction (e.g. not surveys). It should also allow for ALL workers to participate in regular meetings with the management.

⁸⁹ For example, “[the company] will support any effort by its workers to collectively organise or form a trade union. Collective bargaining through trade unions can often bring about more favourable working conditions.”

⁹⁰ If workers choose to seek representation from an independent collective body of workers or union that is not readily recognized by the company, the company should then be open to adopt multiple channels of representation, when the legal framework allows, or seek ways to implement workers’ queries to its communication with the existing representative body.