

Managing Technology that Manages People: Regulatory Strategies for the UK



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Abstract

The paper offers an ambitious analysis of the regulation of algorithmic management, across regional, domestic and organisational levels. Although innovative uses of technology to manage people at work present opportunities, clear risks to rights, difficulties regarding transparency and accountability, and a concern regarding the decline in human connection and judgment also arise. There is no doubt that there is a need to regulate technology that is used to manage people at work. The more pressing questions are *how* should we devise a system of boundaries, rights and responsibilities that are fit for purpose in the era of algorithmic management and *what* should the details of that system be?

In this piece, I examine what the UK can learn from the recent EU Platform Work Directive in answering these important questions. I observe that the Directive contains individual and collective rights that significantly advance our understanding of how algorithmic management should be regulated in the specific context of work. The UK can, and I argue should, move beyond the Platform Work Directive by expanding the application of its future regulatory strategy to any situation where an algorithmic management system determines or influences the conditions of a person at work. Further, the UK's regulatory approach should not be confined to general legislation. Here, I explore the advantages of social partnership or co-governance between businesses and workplace representatives in this fast-moving context. There have already been successes, in the UK and elsewhere, in tripartite regulation of algorithmic management. A shift in Government presents an opportunity to generate productive dialogue between the local, national and international standard-setters.

Keywords: Algorithmic management, EU Platform Work Directive, employment law, social partnership, rights at work.

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1. Introduction

In the last 10 years, it has become clear that people are not necessary to manage the work of other people.¹ Platform work, where digital technologies intermediate between clients and individuals providing work or services,² served as a hotbed of experimentation as businesses developed systems with the capacity to coordinate work from a distance, in real time, and at significant scale. Traditional ‘vertical’ businesses in other sectors, such as logistics and manufacturing, have also adopted similar management practices, whilst more still have designed tools tailored to perform specific functions (such as recruitment, the creation of shift patterns, or the monitoring and evaluation of work) to put on the international market. The result of these rapid developments is the emergence of the algorithmic management system, described by a California legislative drafter as a ‘computational process, including one derived from machine learning, statistics, or other data processing or artificial intelligence techniques, that makes or assists an employment-related decision.’³

Data-driven decision-making in the workplace and about work offers opportunities such as the provision of insights that would be difficult or impossible for a human to generate and the automation of repetitive tasks. Risks must also be highlighted. The rise of algorithmic management presents a renewed challenge to the effective exercise of a range of fundamental rights by people at work.⁴ The long-established informational asymmetry about work and work processes between employers and workers is deepened by the use of algorithmic management systems.⁵ There are also potential barriers to the effective enforcement of rights and accountability for harms,⁶ given the technical expertise required to access and understand the “black-box” at the centre of such systems and the legal “black-box” that surrounds them in the form of trade secrets law.⁷ The opacity of algorithmic management systems and the way in which they can be overly relied upon leads to a general decline in the role of human judgment, as well as community and connection, within workplace relationships.⁸

¹ For accounts of the development and uses of algorithmic management, see Alex Wood, *Algorithmic Management: Consequences for Work Organisation and Working Conditions* (2021, European Commission, JRC124874) and Sara Baiocco, Enrique Fernández-Macías, Uma Rani and Annarosa Pesole, ‘The Algorithmic Management of Work and its Implications in Different Contexts’ (2022, European Commission, JRC129749).

² International Labour Organisation, *The role of digital labour platforms in transforming the world of work* (World Employment and Social Outlook, 2021) 33.

³ The Workplace Technology Accountability Act, Assembly Bill 1651, available at https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB1651, clause 1522(b).

⁴ See Joe Atkinson and Philippa Collins, ‘Artificial Intelligence and Human Rights at Work’ in Alberto Quintavalla and Jeroen Temperman (eds), *Artificial Intelligence and Human Rights* (Oxford University Press, 2023).

⁵ Giovanni Gaudio, ‘Algorithmic Bosses Can’t Lie! How to Foster Transparency and Limit Abuses of the New Algorithmic Managers’ (2022) 42 CLLPJ 707.

⁶ Jeremias Adams-Prassl, ‘What If Your Boss Was an Algorithm?’ (2019) 41 Comparative Labor Law & Policy Journal 123, 139.

⁷ Gaudio, n 5 above, 710.

⁸ Joe Atkinson and Philippa Collins, *Algorithmic Management and a New Generation of Rights at Work* (Institute of Employment Rights, 2024) available at <https://research->

The risks associated with technology that manages people must, it seems clear, be managed. A regulatory strategy that allows the benefits of innovative management strategies to be realised whilst guarding against the risks and guaranteeing an appropriate set of rights for people at work is needed. A variety of such strategies have been proposed⁹ and embarked upon.¹⁰ De Stefano and Aloisi have gone as far as to observe that there is a ‘transatlantic race’ afoot to regulate algorithmic management.¹¹ Continuing their metaphor, I focus here on the role of the European Union (EU) as an emergent leader in the field. Several measures, notably the EU AI Act, interact with algorithmic management in significant ways.¹² Nevertheless, my analysis herein is mostly confined to the Platform Work Directive (PWD or the Directive) as the only legislative text that solely regulates systems that manage people at work.

information.bris.ac.uk/ws/portalfiles/portal/388087723/CollinsAtkinson_Algorithmic_Management.pdf, 7 and Valerio De Stefano, “‘Negotiating the Algorithm’: Automation, Artificial Intelligence, and Labor Protection” (2019) 41 Comparative Labor Law & Policy Journal 15, 20-22.

⁹ See for example the California WTAA, n 3 above; the District of Columbia’s Stop Discrimination by Algorithms Act of 2023, Bill 24-558, available at <https://lims.dccouncil.gov/Legislation/B24-0558>, and the UK Trades Union Congress’ Artificial Intelligence (Regulation and Employment Rights) Bill and Explanatory Notes (2024) available at <https://www.tuc.org.uk/sites/default/files/2024-04/ArtificialIntelligence%28RegulationandEmploymentRights%29Bill16April2024.pdf>.

¹⁰ See for example The New York City Council Local Law 2021/144 to amend the administrative code of the city of New York, in relation to automated employment decision tools, available at <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=4344524&GUID=B051915D-A9AC-451E-81F8-6596032FA3F9> and the text of the Platform Work Directive as agreed in March 2024: Council of the EU, ‘Platform workers: Council confirms agreement on new rules to improve their working conditions’ (Press Release, 11 March 2024) available at <https://www.consilium.europa.eu/en/press/press-releases/2024/03/11/platform-workers-council-confirms-agreement-on-new-rules-to-improve-their-working-conditions/>. The provisional agreement for the text of the Directive of the European Parliament and of The Council on improving conditions in platform work can be found at <https://data.consilium.europa.eu/doc/document/ST-7212-2024-ADD-1/en/pdf> (the Platform Work Directive or PWD). Measures relating to artificial intelligence generally have also been adopted, notably Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act) Text with EEA relevance (EU AI Act) [2024] OJ L 2024/1689 and the Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (Council of Europe Treaty Series No. 225).

¹¹ Antonio Aloisi and Valerio De Stefano, ‘Between risk mitigation and labour rights enforcement: Assessing the transatlantic race to govern AI-driven decision-making through a comparative lens’ (2023) 14 ELLJ 283. Similar observations have been made regarding the regulation of AI: see, for example, Anu Bradford, *Digital Empires: The Global Battle to Regulate Technology* (Oxford University Press, 2023) and Nathalie Smuha, ‘From a “race to AI” to a “race to AI regulation”: regulatory competition for artificial intelligence’ (2021) 13 Law, Innovation and Technology 57.

¹² See Aude Cefaliello and Miriam Kullman, ‘Offering false security: How the draft artificial intelligence act undermines fundamental workers rights’ (2022) 13 ELLJ 542 and Chiara Cristofolini, ‘Navigating the impact of AI systems in the workplace: strengths and loopholes of the EU AI Act from a labour perspective’ (2024) 17 Italian Labour Law e-Journal 75 for analysis.

EU legislators agreed the text of the Directive earlier in 2024.¹³ The PWD is an important intervention that builds upon the General Data Protection Regulation (GDPR)¹⁴ to capture concerns unique to the regulation of systems that are used in relation to people's work. Whilst the PWD's reclassification of people performing platform work as 'workers' rather than self-employed people grabbed the headlines,¹⁵ its Algorithmic Management chapter introduces several measures that significantly advance the regulation of these systems. The chapter contains a series of targeted prohibitions upon particular uses of algorithmic management systems, improved rights of human oversight and review, and an enhanced role for worker representatives in terms of transparency and consultation. Here, I will argue that we can learn from the PWD to guide the UK's own regulatory response.

The UK is well-placed to learn from the EU's progress in the regulation of algorithmic management and, post-Brexit, perhaps has a comparative advantage in pushing the regulatory frontier further. The EU's system of competence places constraints upon its legislative action, which we see play out in the details of the PWD, and the Directive was also tied to a portfolio to act to improve working conditions within digital labour platforms particularly. The UK is free of these constraints so can build upon the PWD's successes to create a regime where innovation is encouraged but respect for workers' rights and effective safeguards are also in place. Here, I propose that a regulatory framework in the UK must extend beyond the context of platform work to protect and offer guarantees to anyone whose working conditions are determined or influenced by the use of an algorithmic management system.¹⁶ This extended personal scope, comparable to offering data protection rights to all data subjects, would be tailored to the regulatory purpose sought. This scope of entitlement would also be unitary, rather than continuing the fragmentation of entitlement between different groups of working people (self-employed vs workers vs employees) that we see in both the PWD and in the UK employment law regime.

An overarching legislative scheme is not the only way to achieve this balance between innovation, respect for rights at work and the wider objectives of labour law. The UK should implement a broader regulatory strategy for algorithmic management of work that harnesses the benefits of polycentric approach, wherein the power and responsibility of actors beyond central state regulators is recognised.¹⁷

¹³ See n 10 above regarding the agreement of the Platform Work Directive (PWD).

¹⁴ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation or GDPR), OJ 2016 L-119/1.

¹⁵ See for example Maïthé Chini, "'Uber does not make the law": EU to make platform workers official employees' (14 December 2023, The Brussels Times) available at <https://www.brusselstimes.com/837526/uber-does-not-make-the-law-eu-to-improve-working-conditions-for-platform-workers> and Theo Bourgery-Gonse, 'EU policymakers brace for clash in thorny debate over platform workers' status' (31 October 2023, Euractiv) available at <https://www.euractiv.com/section/gig-economy/news/eu-policymakers-brace-for-clash-in-thorny-debate-over-platform-workers-status/>.

¹⁶ A similar argument was made in Atkinson and Collins, *New Generation of Rights at Work*, n 9 above, 22.

¹⁷ Julia Black and Andrew Douglas Murray, 'Regulating AI and Machine Learning: Setting the Regulatory Agenda' (2019) 10 European Journal of Law and Technology, available at <https://ejlt.org/index.php/ejlt/article/view/722/978>.

Labour law scholars have observed that there is a need for employers' and workers' representatives to 'negotiate the algorithm':¹⁸ to engage in collective dialogue in advance, during and after the introduction of a new system or any changes. Negotiation between social partners has the advantages of being responsive to the specific needs of the organisation or wider sector and its workforce. Any agreement can also be adjusted responsively where circumstances change, which is essential in an area that is as quick moving as workplace technology. Beyond the advantages to the immediate parties, successful agreements provide an example of what effective regulation of algorithmic management could look like when writ nationally, as representatives of workers and employing organisations achieve workable compromises and refine them over time. Whilst this negotiation and bargaining could occur on a single organisation level or across a sector, in this piece, I highlight the possibilities for this kind of regulatory interplay to occur through the social dialogue process set out in the Social Partnership and Procurement (Wales) Act 2023.

This piece therefore offers insights across a range of regional, national and local levels of governance. It is structured as follows: in section 2, algorithmic management is introduced, along with possibilities and risks that it creates. Section 3 charts key provisions introduced by the PWD across its individual and collective dimensions. In relation to the Directive's range of prohibitions on particular system uses and sources of data collection, I suggest that these measures can be viewed sensibly through a human rights lens. In section 4, the paper turns to how the UK can build upon the regulatory foundations established by the Directive and expand its successes beyond the platform economy. The final section moves from the macro-level of regulatory strategy to examine the benefits and successes of collective negotiation in shaping the use of algorithmic management. I note that, due to unique legislation introduced by the Senedd Cymru mentioned above, there is potential for social partnership to have a significant impact on the regulatory agenda in the era of algorithmic management.

2. Algorithmic management: Balancing the Benefits of Innovation with Risks to Rights

The growth of algorithmic management has fundamentally altered the way that many working people are managed. How human resources functions are carried out and how individual workers experience being managed have changed dramatically.¹⁹ There are two axes of change that have driven this transformation. There has been an enormous increase in capability to monitor a wide array of data about different types of work, whether online or offline, on a moment-to-moment basis.²⁰ This data-gathering capacity is matched by an increased capacity to store, combine and analyse data in real time, and decreasing costs associated with this kind of processing. The consequence of these changes is that someone can do an entire day of work without requiring any intervention from a manager: their shift is

¹⁸ De Stefano, n 8 above.

¹⁹ Adams-Prassl, n 6 above, 124.

²⁰ See De Stefano, n 8 above, 23-26.

planned, duties allocated, pace and quality of work evaluated, all through the power of data, AI and algorithms. Algorithms recommend who should be hired,²¹ and in some cases, who should be fired.²²

The crucible for exploring and developing this mode of management was in the platform or gig economy. Here, businesses such as Uber and Deliveroo learned how to manage work at a distance, meaning that they could scale operations nationally and internationally with a small core of management staff. The ‘gig economy’ business model operates by matching client demand to worker capacity in a manner that allowed platforms to put forward an argument that they were not an employer at all, simply providing access to a platform for two groups of clients: the drivers and the passengers, the riders and the recipients, etc. Whilst Uber’s attempt to avoid responsibilities under employment law were unsuccessful,²³ the case shows how algorithmic management can be deployed to manage an entire working relationship.

Ride-hailing and delivery apps are not the only innovators in this area. In one direction, giants like Amazon have designed their own systems for managing work processes and deployed them “in house”. In fulfilment centres, individuals carry hand-held devices that show pictures to direct them to an item to “pick”, instruct them on how to get there, and measure the pace of work in minute detail.²⁴ On the road, the internal and external environment of a driver is monitored in real time,²⁵ whilst the driver seeks to meet precise targets for delivery times. During 2021, there was media coverage of the story of Stephen Normandin and other Amazon Flex drivers who had been, as they saw it, ‘fired by bot’.²⁶ Subject to surveillance and strict (but often unrealistic) targets, drivers were allocated more or less work based on their algorithmic ratings and received contract termination emails with no real opportunity to engage in a grievance or appeal process. These systems are used by Amazon to manage the work of staff regardless of their purported employment status: drivers, for example, are ‘service partners’ or ‘contract drivers’, whilst agency staff are hired to work in fulfilment centres.²⁷

²¹ In the UK context, see Aislinn Kelly-Lyth, ‘Challenging Biased Hiring Algorithms’ (2021) 41 OJLS 899.

²² Philippa Collins, ‘Automated Dismissal Decisions, Data Protection and The Law of Unfair Dismissal’ (UK Labour Law Blog, 19 October 2021) available at <https://uklabourlawblog.com/2021/10/19/automated-dismissal-decisions-data-protection-and-the-law-of-unfair-dismissal-by-philippa-collins/>.

²³ *Uber BV and others v Aslam and others* [2021] UKSC 5, [2021] 4 All ER 209.

²⁴ See Alessandro Delfanti, ‘Machinic Dispossession and Augmented Despotism: Digital Work in an Amazon Warehouse’ (2021) 23 New Media & Society 39.

²⁵ Yuanyu Bao et al, ‘Ethical Disputes of AI Surveillance: Case Study of Amazon’ (2022) Proceedings of the 2022 7th International Conference on Financial Innovation and Economic Development, available at <https://doi.org/10.2991/aebmr.k.220307.220> and Annie Palmer, ‘Amazon is using AI-equipped cameras in delivery vans and some drivers are concerned about privacy’ (CNBC, 3 February 2021).

²⁶ Spencer Soper, ‘Fired by Bot at Amazon: ‘It’s You Against the Machine’ (Bloomberg, 28 June 2021) <<https://www.bloomberg.com/news/features/2021-06-28/fired-by-bot-amazon-turns-to-machine-managers-and-workers-are-losing-out>>.

²⁷ Maeve McClenaghan, Cat McShane, Charles Boutaud, Emiliano Mellino and Nimra Shahid, ‘Amazon’s Empty Pledge Leaves Agency Workers Without Shifts and Pay’ (The Bureau of Investigative Journalism, 18 February 2021) available at <https://www.thebureauinvestigates.com/stories/2021-02-18/amazons-empty-pledge-leaves-agency-workers-without-shifts-and-pay/>.

In another direction, companies began designing products that support specific management functions and marketed them to other organisations.²⁸ For example, HireView assists or assumes search and recruitment functions, including analysis of CVs and video interviews and ranking candidates based upon their “fit” within the recruiting organisation. Cogito is used in call centres to manage productivity and quality of performance through real-time analysis, including live nudges on performance, and recorded activity that can be viewed later. In the retail sector, Percolata offers scheduling and team composition recommendations (or can automate the process entirely) based upon a wide range of variables: previous data, weather forecasts, real-time customer flow, individual sales data and even local traffic. These are just three examples of how the combination of massive amounts of data and AI have come to bear on aspects of the employment relationship.

There are opportunities for workers and organisations in the use of algorithmic management. As Brione argues, algorithmic management systems ‘excel’ at processing large quantities of information and spotting trends in that data, both of which would be excessively difficult and time consuming for a human.²⁹ It could be seen as a benefit for individuals that decisions are driven by the available data, rather than by bias or whim. Systems can automate repetitive tasks within the management process and managers can work *with* systems to learn from the data available and tailor its recommendations to their setting and personal experience.³⁰ Generally, work processes could be rendered more efficient and, where workers are properly included and consulted throughout the process of introducing a new technology, they may feel empowered by working closely with an algorithmic management system.

To craft an adequate regulatory response to algorithmic management, however, we must also foreground the risks that arise where technology is used to manage working people. Here, I will highlight three areas of concern:

1. a threat to a range of human rights and workers’ rights where systems are not implemented responsibly and fairly;
2. the difficulties of enforcing rights and achieving transparency, consultation and accountability regarding the use of algorithmic management, and
3. the sidelining of human connection between managers and staff, as well as the decline in the exercise of human judgment and decision-making in the management relationship.

²⁸ These examples draw on Patrick Brione, *My Boss the algorithm: An ethical look at algorithms in the workplace* (March 2020, ACAS Research Paper).

²⁹ *ibid* 27.

³⁰ *ibid* 11 although in the example reported by Brione, this human adjustment was seen as a way of retaining personalised control over workers, rather than as a way of responding to the individual circumstances of the workforce.

First, the use of algorithmic management generates a risk to the enjoyment and exercise of a wide spectrum of rights in the workplace context.³¹ Human rights are under threat. The right to respect for one's private life and the right to data protection are directly in conflict with the vast scale of data collection and analysis about individuals at work and even beyond the confines of their work.³² The risk of discrimination, where unequal patterns of historical treatment are replicated or entirely new discriminatory impacts created by algorithmic management systems, has been a source of significant concern.³³ But the effects of algorithmic management extend beyond privacy, discrimination and data protection to impacts upon the exercise of the rights to freedom of association and freedom of expression within and beyond the workplace.³⁴

More broadly, there are challenges related to rights that are associated with work specifically. One could examine the use of algorithmic management from the perspective of health and safety,³⁵ trade union regulations,³⁶ or procedural rights such as the right not to be unfairly dismissed, and find sources of concern. Elsewhere, for example, I have argued that a fully automated dismissal of an individual would be unfair under the UK law of unfair dismissal, due to the law's strong procedural justice requirements.³⁷

Second, whilst working people have a range of rights that *should* shape the use of algorithmic management systems in their workplaces, a most significant barrier to enforcing these rights and engaging effectively with an employer is the lack of transparency faced by workers.³⁸ There are three ways in which this opacity tends to arise.³⁹ First, there is a general informational asymmetry between manager and worker that arises across the employment context. The employer possesses more information about the systems in use and their functions, parameters and operation. Often this

³¹ See Atkinson and Collins, 'Artificial Intelligence and Human Rights at Work', n 4 above, and Ifeoma Ajunwa, 'Algorithms at Work: Productivity Monitoring Platforms and Wearable Technology as the New Data-Centric Research Agenda for Employment and Labor Law' (2018) *St Louis University Law Journal* 63 for an overview.

³² See amongst others Ifeoma Ajunwa, Kate Crawford & Jason Schultz, 'Limitless worker surveillance' (2017) 105 *California Law Review* 102; Bart Custers and Helena Ursic, 'Worker Privacy in a Digitalized World under European Law' (2018) 39 *CLLPJ* 323; Marta Otto, '"Workforce Analytics" v Fundamental Rights Protection in the EU in the Age of Big Data' (2019) 40 *CLLPJ* 389, and Antonio Aloisi and Elena Gramano, 'Artificial Intelligence Is Watching You at Work: Digital Surveillance, Employee Monitoring, and Regulatory Issues in the EU Context' (2019) 41 *CLLPJ* 95.

³³ See amongst others Kelly-Lyth, n 21 above; Pauline T. Kim, 'Data-Driven Discrimination at Work' (2017) 58 *Wm. & Mary L. Rev.* 857; Alina Köchling and Marius Claus Wehner, 'Discriminated by an algorithm: a systematic review of discrimination and fairness by algorithmic decision-making in the context of HR recruitment and HR development' (2020) 13 *Business Research* 795, and Sandra Wachter, 'The Theory of Artificial Immutability: Protecting Algorithmic Groups Under Anti-Discrimination Law' (2023) 97 *Tulane Law Review* 149.

³⁴ Atkinson and Collins, 'Artificial Intelligence and Human Rights at Work', n 4 above, 377-380.

³⁵ See Adrián Todolí-Signes, 'Making algorithms safe for workers: occupational risks associated with work managed by artificial intelligence' (2021) 27 *Transfer* 433.

³⁶ See Philippa Collins and Joe Atkinson, 'Worker voice and algorithmic management in post-Brexit Britain' (2023) 29 *Transfer* 37.

³⁷ Collins, 'Automated Dismissal Decisions, Data Protection and the Law of Unfair Dismissal', n 5 above. See Gaudio, n 5 above, 720-725 for an analysis applying Italian labour law.

³⁸ Trades Union Congress, *Technology Managing People: The Worker Experience* (30 November 2020) available at <https://www.tuc.org.uk/research-analysis/reports/technology-managing-people>, 38.

³⁹ Here, I draw on Gaudio, n 5 above.

information is not openly or readily shared in a format that is accessible to workers and their representatives. Second, we see legal obstacles to transparency: the maintenance of corporate secrecy regarding their design and operation through trade secrets law and other contractual methods. Finally, the technical literacy required to understand and interrogate algorithmic management systems is significant. As Gaudio notes, code writing and code reading are still specialist skills in the population.⁴⁰ Where the system is built on specific types of machine learning (such as neural networks), experts can explain how a model functions, but ‘they cannot explain precisely why it generated a concrete output based on a given input’.⁴¹ Sometimes, they cannot even explain how the system works and rely on technical approximations instead.⁴²

This multi-layered lack of transparency undermines the ability of workers and their representatives to shape the use of algorithmic management systems in the workplace and to hold the employer accountable if harms arise. We should note, however, that workers are not the only party that experience a lack of transparency. The same barriers to genuine transparency pertain to the position of managers relying on algorithmic systems, the need for technical literacy particularly. The secrecy around algorithmic management systems is also maintained, even within companies that are deploying technology to manage their own staff, as those responsible for system design and operation are housed in other parts of the business. This secrecy is heightened where an employer has procured a system from a third-party vendor whose competitive edge relies upon maintaining strict confidentiality and may therefore be reluctant to share information with contracting parties.

Introducing a third-party vendor into the situation also complicates matters with regard to collective bargaining.⁴³ The UK’s approach to collective recognition and bargaining is predicated on a binary discussion between the employer, who is in control of the terms and conditions of work, and the workers’ representatives.⁴⁴ Workers’ representatives have no legal connection to a supplier of an algorithmic management system, meaning that they cannot insist the supplier takes into account the workers’ concerns or hold them accountable through contractual penalties. Here, in addition to trade secrets, we find another way that the law constructs a barrier to adequate transparency and accountability.

⁴⁰ *ibid* 710.

⁴¹ Research Group on the Regulation of the Digital Economy, *Technical Aspects of Artificial Intelligence: An Understanding from an Intellectual Property Law Perspective* (Max Planck Institute for Innovation and Competition Research Paper, 2019) 11.

⁴² See David Leslie et al, *AI Explainability in Practice* (The Alan Turing Institute, 2024) Appendix A and Appendix B.

⁴³ Collins and Atkinson, ‘Worker voice and algorithmic management in post-Brexit Britain’, n 36 above, 41.

⁴⁴ See for example *R. (on the application of the Independent Workers' Union of Great Britain) v Central Arbitration Committee & University of London* [2019] EWHC 728 (Admin), [2019] IRLR 530, [75], and analysis in Philippa Collins, *Putting Human Rights to Work: Labour Law, the ECHR and the Employment Relation* (OUP, 2022) 124-125.

The legal and technical “blackbox” at the centre of algorithmic management systems contributes to the last risk that I wish to underline: the loss of human connection and judgment in the workplace and in managerial relations.⁴⁵ Managing work through technology tends to individualise the worker’s experience, reducing opportunities to build communities amongst workers. Although an extreme example, workers in Amazon fulfilment centres observe that ‘human interactions are discouraged and disincentivised if not explicitly punished’.⁴⁶ With regard to the relationship between a person and their manager, technology has enabled this relationship to be conducted at greater distance, meaning a personal connection is less likely to form. In addition to the potential lack of expertise mentioned above, automation bias also renders a manager more likely to follow the recommendation of an algorithmic management system than trust their personal judgment and experience to override it or correct it.⁴⁷ In a system where managers may be subject to algorithmic management themselves, there is potential for a compounding effect upon the experience of management and work across all levels. The freedom of each individual in the organisation to exercise judgment, act autonomously, and create personal connections with others is circumscribed by algorithmic management systems if they are not introduced thoughtfully into a workplace.

3. Follow the leader: The EU’s Platform Work Directive

In response to these pressing concerns regarding the quality of working life in an era of algorithmic management, several jurisdictions have considered or introduced regulation.⁴⁸ Here, the EU emerges as the “frontrunning regulator”. Three major EU interventions are important to the regulation of algorithmic management: the General Data Protection Regulation, the Artificial Intelligence Act, and the Platform Work Directive. In this section, I focus on the innovations contained in the Platform Work Directive (PWD), as the measure most targeted to the workplace context.

Applying to digital labour platforms, the PWD’s overarching aim is to ‘improve working conditions and the protection of personal data in platform work’.⁴⁹ The Directive does this through several groups of measures. The PWD introduces a presumption that a contract between a platform and a person performing platform work shall be considered an employment relationship, with a mechanism for a platform to rebut this presumption.⁵⁰ The effect of this presumption is hoped to be that many people working in the platform economy will be reclassified as employees, rather than self-employed contractors, and thereby become entitled to employment rights in their national regimes for the first

⁴⁵ Atkinson and Collins, *New Generation of Rights at Work*, n 8 above, 7.

⁴⁶ Delfanti, n 24 above, 49.

⁴⁷ Hannah Ruschemeier and Lukas J. Hondrich, ‘Automation bias in public administration – an interdisciplinary perspective from law and psychology’ (2024) 41 *Government Information Quarterly* 101953.

⁴⁸ See the comparative analysis offered in Aloisi and De Stefano, n 11 above, and the measures listed at fn 9 and 10 above.

⁴⁹ PWD, Article 1.

⁵⁰ PWD, Article 5.

time. This set of measures has been controversial and subject to extensive redrafting during the legislative process.⁵¹ The Directive also places transparency obligations upon platforms to report to supervising authorities with the relevant EU member state and sets out remedial and enforcement requirements.

Here I focus on the final group of measures contained in the Directive: the Algorithmic Management chapter.⁵² In this chapter, the PWD aims to promote ‘transparency, fairness, human oversight, safety and accountability in algorithmic management in platform work’.⁵³ I argue that these provisions contain important incremental advances on existing regulations, particularly the GDPR, its regulation of automated data processing and the role of unions in the preparation of Data Protection Impact Assessments. More substantial steps forward are also discussed, specifically the “red lines” that the Directive draws around certain uses of algorithmic management, types of data processing that are prohibited and the guarantees around human oversight and human review. The protections for individual people performing platform work and the collective and representative dimensions of the PWD overlap and connect to each other closely, a significant achievement of its drafting. Nevertheless, for the purpose of this section, I will start first with the individual before moving to the collective aspects of the PWD.

(A) Individual rights and protections for persons performing platform work and platform workers

A central advance of the PWD is the introduction of a range of prohibitions on certain uses of algorithmic management in the context of platform work. These “red lines” respond to the concerns that have been raised in relation to the use of technology in the context of work, many of which I outlined above in Section 2.

One prohibition established by the GDPR was ‘solely automated decision-making’ that had legal or similarly significant effects for the data subject.⁵⁴ This prohibition set a high threshold before it was engaged and also failed to recognise that most decisions in this context have some human involvement, so a strict interpretation would render Article 22 redundant.⁵⁵ In line with Article 22, the PWD targets fully automated monitoring and decision-making systems.⁵⁶ Where the PWD makes an incremental

⁵¹ For an account and analysis of the key developments, see Valerio De Stefano, ‘The EU Commission’s proposal for a Directive on Platform Work: an overview’ (2022) 15 Italian Labour Law e-Journal 1, available at <https://illeg.unibo.it/article/view/15233>.

⁵² For an excellent analysis of these measures as they appeared in the Proposal version of the Directive, see Michael Veale, M. ‘Six’ Silberman, and Reuben Binns, ‘Fortifying the algorithmic management provisions in the proposed Platform Work Directive’ (2023) 14 ELLJ 308.

⁵³ PWD, Article 1(b).

⁵⁴ GDPR, Article 22.

⁵⁵ See Halefom Abraha, ‘Regulating algorithmic employment decisions through data protection law’ (2023) 14 ELLJ 172, 179-180.

⁵⁶ PWD, Article 7(1).

advance is the extension of the prohibitions listed below to any instance in which automated systems are used to *support or take* ‘decisions that affect persons performing platform work *in any manner*’.⁵⁷

With Joe Atkinson, I have argued that a human rights framing of the threats of algorithmic management is useful.⁵⁸ In particular, this perspective is urgently needed to identify and prevent uses of algorithmic management systems that amount to disproportionate infringements upon an individual’s human rights. This view is clearly reflected in the Directive, where I suggest that two groups of prohibitions can be discerned. First, a set of use cases and forms of data processing that amount to disproportionate infringements upon the individual’s right to respect for their private life have been prohibited. The right to respect for one’s private and family life is defined broadly, including for example the right to control private information about one’s self.⁵⁹ Importantly the right persists within an employment relationship and during working time.⁶⁰ Second, the Directive prevents the use of systems that, rather than infringing directly on a fundamental right, would undermine the exercise or enjoyment of a right by people working for a digital labour platform. Table 1 shows how the PWD’s “red lines” can be categorised accordingly.

Preventing systems that infringe disproportionately on the right to respect for one’s private and family life.	
Digital labour platforms ‘shall not’ ...	
Art. 7(1)(a)	‘ <u>process</u> any personal data on the emotional or psychological state of the person performing platform work;’
Art. 7(1)(b)	‘ <u>process</u> any personal data in relation to private conversations, including exchanges with other persons performing platform work and their representatives;’
Art. 7(1)(c)	‘ <u>collect</u> any personal data while the person performing platform work is not offering or performing platform work;’
Art. 7(1)(f)	‘ <u>process</u> any biometric data of a person performing platform work to establish that person’s identity by comparing that data to stored biometric data of individuals in a database.’
Preventing systems that would undermine the exercise or enjoyment of other fundamental rights.	
Digital labour platforms ‘shall not’ ...	
Art. 7(1)(d)	‘ <u>process</u> personal data to predict the exercise of fundamental rights, including the right of association, the right of collective bargaining and action or the right to information and consultation...’
Art. 7(1)(e)	‘ <u>process</u> any personal data to infer racial or ethnic origin, migration status, political opinions, religious or philosophical beliefs, disability, state of health, including chronic disease or HIV status, the emotional or psychological state, trade union membership, a person’s sex life or sexual orientation;’
Art. 12(3)	‘ <u>use</u> automated monitoring or decision-making systems in any manner that puts undue pressure on platform workers or otherwise puts at risk safety and the physical and mental health of platform workers.’

Table 1: source: author’s own elaboration.

⁵⁷ PWD, Article 7(3).

⁵⁸ Atkinson and Collins, ‘Artificial Intelligence and Human Rights at Work’, n 4 above.

⁵⁹ See *S and Marper v UK* Applications nos 30562/04 and 30566/04 (ECHR, 4 December 2008) at [103].

⁶⁰ See *Bărbulescu v Romania* Application no 61496/08 (ECHR, 5 September 2017) and *Antović and Mirković v Montenegro* Application no 70838/13 (ECHR, 28 November 2017).

The table displays the extensive list of prohibited practices, categorised along these lines. To the best of my knowledge, the list goes well beyond anything currently reflected in hard law anywhere in the world. The approach of directly prohibiting these uses of algorithmic management systems has several benefits. First, it sends a strong message that these practices are considered to be unacceptable within the EU. Second, all persons protected by the prohibition receive its protection immediately, without the need to negotiate individually or collectively within an organisation or sector about the appropriate scope of any prohibitions. The ‘red lines’ operate as a “floor” of mandatory standards of treatment below which the employing organisation cannot go. The protections are not contingent on having the negotiating power required to win guarantees through bargaining and strike or the threat of leaving employment. From a UK perspective, this regulatory approach – and the specific boundaries drawn by the Directive – are instructive.

There is an additional prohibitive safeguard introduced by the Directive in Article 10(5). The article reads: ‘Any decision to restrict, suspend or terminate the contractual relationship or the account of a person performing platform work or any other decision of equivalent detriment shall be taken by a human being.’ Article 10(5) prohibits any decision-making with significant detriment effects for the individual involved that is concluded otherwise than by a human being. This provision reflects the need for human oversight of this category of decisions. Effective human oversight is one component of achieving procedural fairness in relation to the use of algorithmic management systems, a value that can be seen elsewhere in the UK’s domestic framework, for example in the law of unfair dismissal and in the GDPR.⁶¹ The PWD’s innovation here is tailoring this concern to the specific experience of platform workers and drawing a clear and bright line of prohibition, where the GDPR had previously created a grey area of uncertainty.⁶²

Article 10(5) is one aspect of the Directive’s push towards achieving procedural fairness in decision-making in the context of algorithmic management. Under Article 11, all persons performing platform work have the right to obtain an explanation for *any* decision taken or supported by a system ‘without undue delay’. A contact person, with the necessary ‘competence, training and authority’, must also be designated to discuss the decision and ‘to clarify the facts, circumstances and reasons having led to the decision.’ Where the decision taken affects ‘the essential aspects of the employment or other contractual relationships’,⁶³ a written statement of reasons for the decision must be provided without undue delay

⁶¹ Collins, ‘Automated Dismissal Decisions, Data Protection and the Law of Unfair Dismissal’, n 22 above.

⁶² See commentary on the operation of GDPR, Article 22 including Abraha, n 55 above, 179-182; Reuben Binns and Michael Veale, ‘Is that your final decision? Multi-stage profiling, selective effects, and Article 22 of the GDPR’ (2021) 11 International Data Privacy Law 319 and Luca Tosoni, ‘The right to object to automated individual decisions: resolving the ambiguity of Article 22(1) of the General Data Protection Regulation’ (2021) 11 International Data Privacy Law 145.

⁶³ PWD, Article 11(1) includes a non-exhaustive list of these more impactful decisions as follows: ‘any decision supported or, where applicable, taken by an automated decision-making system to restrict, suspend or terminate the account of the person performing platform work, any decision to refuse the payment for work performed by

‘and at the latest on the day [the decision] takes effect’.⁶⁴ This right to seek an explanation is an essential “gateway” to enabling an individual to understand and, if necessary, challenge a decision made in reliance upon an automated system. The right therefore has an important role in both attaining transparency with regard to decision-making and ensuring other rights are respected.

The right in Article 11(1) is followed, in the pattern of procedural fairness, by a right to request a review of the decision made. This request can be made by the individual or, where permitted by a national regime, their representative. The platform must provide a written response within two weeks of the receipt of the request. If an infringement of the individual’s rights is found, platforms must rectify the decision within two weeks of the adoption of the decision and, if rectification is not possible, offer adequate compensation for the damage sustained. Mitigatory steps to avoid repetition of the infringement by the system should be taken, including ‘a modification of the automated decision-making system or a discontinuance of its use’.⁶⁵

One point is striking regarding this sequence of procedural steps: the timeframes required. Just as algorithmic management systems can monitor data and take decisions on an almost instantaneous basis, the Directive expects platforms to respond, explain, review and, if necessary, remedy or rectify a decision within a short period of time. This timeframe is a marked contrast to traditional disciplinary or grievance processes within the workplace, where investigations, decision-making and appeals can take months. One might be concerned that the speed of response required under the PWD will mean that the quality of investigation or response by platforms will be low. However, this risk must be balanced with the possibility that a higher proportion of relationships will continue despite an infringement because errors or unfairness are corrected so quickly that trust and confidence between the parties is not permanently lost.⁶⁶

(B) The Enhanced Role of Transparency and Consultation in Platform Work

One area of criticism of the GDPR, as the established EU measure most relevant to algorithmic management, was that the data protection framework failed to account adequately for the collective dimension of workplace relations and to provide for involvement of workplace representatives.⁶⁷ Here, the PWD has also taken crucial steps forward, providing an example of how data rights can be modified

the person performing platform work, any decision on the contractual status of the person performing platform work, any decision with similar effects or any other decision affecting the essential aspects of the employment or other contractual relationships’.

⁶⁴ PWD, Article 11(1).

⁶⁵ PWD, Article 11(3).

⁶⁶ Compare with the position in the law of unfair dismissal: Joanna Howe, ‘Why Do So Few Employees Return to their Jobs? In Pursuit of a Right to Work Following Unfair Dismissal’ in Virginia Mantouvalou (ed), *The Right to Work: Legal and Philosophical Perspectives* (Hart Publishing, 2014).

⁶⁷ D. Calacci and Jake Stein, ‘From access to understanding: Collective data governance for workers’ (2023) 14 ELLJ 253, Aislinn Kelly-Lyth and Anna Thomas, ‘Algorithmic management: Assessing the impacts of AI at work’ (2023) 14 ELLJ 230, 248-249 and Abraha, n 55 above, 183.

to take into account, and leveraged to further, the need for collective bargaining regarding the use of algorithmic management systems. Three incremental but important adjustments should be highlighted.

1. Transparency: The obligation to share information about automated monitoring or decision-making systems, which is duly tailored to the context, extends to persons performing platform work *and* platform workers' representatives.⁶⁸ Workers' representatives must receive 'comprehensive and detailed information about all relevant systems and their features'. This information should be provided upon request or prior to the system's use or to the introduction of any changes that affect 'working conditions, the organisation of work or monitoring work performance'.⁶⁹ This transparency obligation demands that platforms provide important information in advance of a system's use and throughout its deployment, where changes are made. Like the right to an explanation in Article 10(5) PWD, transparency can be seen as a "gateway" to negotiation regarding the use of systems and to accountability in the event that workers and/or their representatives believe that an infringement upon rights has occurred.

2. Consultation:⁷⁰ Article 35 GDPR requires a data controller to carry out a Data Protection Impact Assessment (DPIA) where the relevant processing is 'likely to result in a high risk to the rights and freedoms' of a data subject.⁷¹ The PWD adds that platforms 'shall seek the views of persons performing platform work and their representatives' when preparing a DPIA.⁷² The final Impact Assessment shall be provided to workers' representatives.⁷³ This modification of the general obligation under Article 35 GDPR guarantees consultation of workers and their representatives at an early stage of the process of adoption of an algorithmic management system, meaning that they can raise risks and impacts that need to be mitigated from the worker perspective and seek to address those risks with the platform collaboratively. The provision of the final DPIA to representatives is another mode of creating avenues for accountability as it enables representatives to ensure that the platform is complying with its own risk mitigation strategy.

3. Human oversight: under Article 10, Member States must ensure that platforms oversee and carry out regular⁷⁴ evaluations of the impact of their systems on persons performing platform work, their working conditions and equal treatment at work.⁷⁵ The Directive sets out what 'effective oversight and

⁶⁸ PWD, Article 9(1).

⁶⁹ PWD, Article 9(4)

⁷⁰ The PWD also interacts in a similar way with other existing consultation frameworks: see PWD, Article 12 on Directives regarding health and safety and Article 13 on Directives regarding information and consultation.

⁷¹ GDPR, Article 35.

⁷² GDPR, Article 8(1).

⁷³ GDPR, Article 8(2).

⁷⁴ Evaluations should occur at least every two years.

⁷⁵ PWD, Article 10(1).

evaluation’ requires⁷⁶ and places an obligation upon platforms to avoid high risks of discrimination or repeated rights infringements in the future.⁷⁷ The evaluation must include ‘the involvement of workers’ representatives’ and, as above, the results of the evaluation should be transmitted to workers’ representatives.

Thus, one can see how workers’ representatives are integrated throughout the decision-making process about algorithmic management systems, from providing views on a DPIA, to receiving relevant information about the use of a system and any changes, to involvement in the evaluation of a system. Going beyond human-in-the-loop or above-the-loop,⁷⁸ the Directive positions worker representatives firmly in-the-loop, -before-the-loop, -after-the-loop and -above-the-loop.⁷⁹ It can be hoped that this approach towards social partnership in the context of algorithmic management will create a “virtuous circle” whereby risks are identified collaboratively, information shared transparently, harms redressed quickly, and systems improved responsively.

4. Outpacing the leader: How should the UK regulate algorithmic management?

The Directive is a significant step forward in terms of improving working conditions in the digital platform economy, as well as revealing a great deal about how algorithmic management can be regulated effectively. There are, however, limits to the PWD’s scope that – whilst necessary in the context of the European Union – must be charted. Specifically, the Directive, as its name suggests, focuses only on work performed for a digital labour platform. In addition, the PWD extends rights to two different groups of working people: “persons performing platform work” and “platform workers”. In this section, I will observe that the UK has an opportunity to learn from the Directive’s successes outlined above whilst avoiding these constraints upon any future law’s scope.

The Directive emerged as the product of a long list of Communications, Recommendations, Opinions, and Resolutions.⁸⁰ These documents targeted the need to improve working conditions in platform work,

⁷⁶ Namely, from Article 10(2), ‘sufficient human resources’, the person charged with oversight and evaluation must have ‘the necessary competence, training and authority to exercise that function, including for overriding automated decisions’ and ‘enjoy protection from dismissal or its equivalent, disciplinary measures or other adverse treatment for exercising their functions’.

⁷⁷ PWD, Article 10(3).

⁷⁸ Jeremias Adams-Prassl et al, ‘Regulating algorithmic management: A blueprint’ (2023) 14 ELLJ 124, 126.

⁷⁹ For an alternative way in which this could be achieved, see Kelly-Lyth and Thomas, n 67 above.

⁸⁰ Amongst others, see European Commission, *European agenda for the collaborative economy*, COM (2016) 356 final; European Economic and Social Committee, *Opinion: Fair work in the platform economy*, Exploratory opinion at the request of the German presidency, (2020, SOC/645) available at <https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/fair-work-platform-economy-exploratory-opinion-request-german-presidency>; Communication from the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, *Commission Work Programme 2021: A Union of vitality in a work of fragility*, COM/2020/690 final; European Parliament resolution of 16 September 2021 on fair working conditions, rights and social protection for platform workers – new forms of employment linked to digital development (2021, 2019/2186(INI)).

both for those that are workers but may be misclassified under national rules as self-employed people and for genuinely self-employed people. The portfolio of work was wide-ranging in some senses, including actions related to competition law, governance, and measures to improve working conditions,⁸¹ but simultaneously narrow in that it only focused on platform work.⁸²

The agreed text of the Directive defines a ‘digital labour platform’ as a natural or legal person providing a service meeting all four criteria listed in Article 2(1):

- (a) the service is provided at a distance through electronic means;
- (b) the service is provided at the request of its recipient;
- (c) the service ‘involves, as a necessary and essential component, the organisation of work performed by individuals in return for payment, irrespective of whether that work is performed online or in a certain location’; and
- (d) the service involves the use of automated monitoring or decision-making systems.⁸³

M. Six Silberman has argued persuasively that the definition of a digital labour platform set out above may not capture all forms of platform work that could have been within the Directive’s scope.⁸⁴ What is absolutely clear is that, by reason of the focus on the problems of the platform economy, the PWD will not extend the range of important rights and red-lines outlined in Section 3 to all working people who are subject to algorithmic management systems.

Algorithmic management systems – meaning any ‘computational process, including one derived from machine learning, statistics, or other data processing or artificial intelligence techniques, that makes or assists an employment-related decision’⁸⁵ – are used in many contexts and impact work well beyond the platform economy. This point was set out in full in Section 2 above. Anyone subjected to algorithmic management in relation to their work is exposed to the same risks to their fundamental rights in the workplace that platform workers experience. They need the same range of transparency, explainability, review and consultation rights as persons performing platform work. If the UK were to join the race to regulate algorithmic management, there would be no need to confine that action to platform work.

⁸¹ Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and The Committee of the Regions, *Better working conditions for a stronger social Europe: harnessing the full benefits of digitalisation for the future of work*, COM/2021/761 final.

⁸² A similar comment can be made about the definition of ‘artificial intelligence’ used in the EU AI Act, Article 3(1): the definition targets AI products but, from a workplace management perspective, its duties on providers and deployers would not apply to the full range of systems that create the risks outlined in Section 2.

⁸³ PWD, Article 2(1).

⁸⁴ M. Six Silberman, ‘The Definition of “Digital Labour Platform” in the Proposed Platform Work Directive’ (Verfassungsblog, 18 July 2023) available at <https://verfassungsblog.de/the-definition-of-digital-labour-platform-in-the-proposed-platform-work-directive/>. Catherine Barnard has made a similar observation about the limits of the definition of digital labour platforms in the context of online creators and influencers: Barnard, Catherine. ‘The Serious Business of Having Fun: EU Legal Protection for Those Working Online in the Digital Economy’ (2023) 39 International Journal of Comparative Labour Law and Industrial Relations 125, 137.

⁸⁵ See California WTAA, n 3 above.

Rights and responsibilities must extend to any person providing work for another natural or legal person whose working conditions are determined or influenced by the use of an algorithmic management system.⁸⁶

Adopting a broader and unitary definition as suggested above avoids a second difficulty present in the PWD's text: the fragmentation of personal scope. The European Union's capacity to legislate is restricted by a series of competences. In the case of the PWD, the competences relied upon are Article 153(b) and Article 16 of the Treaty on the Functioning of the European Union.⁸⁷ Article 153(b) permits the EU to support and complement the activities of member states in the field of working conditions, but this basis is usually considered to be restricted in scope to 'workers' and not encompass self-employment.⁸⁸ Article 16 as a legal basis *does* include self-employed people in their position as a data subject. The Article permits the European Parliament and the Council to 'lay down the rules relating to the protection of individuals with regard to the processing of personal data'.⁸⁹ It is this dual legal basis for the PWD's intervention that generates the fragmentation between the treatment of different groups in the platform economy.

The wider category of rights-bearer in the Directive is 'persons performing platform work' (PPPW). A PPPW is 'any individual performing platform work, irrespective of the nature of the contractual relationship or its designation by the parties involved'.⁹⁰ A person considered to be self-employed by domestic and EU frameworks would be included within this definition. They receive the benefit of the rebuttable presumption of an employment relationship contained in Article 2 PWD and *some of* the rights listed above in section 3 in accordance with the Article 16 legal basis to protect individuals with regard to data processing.

The narrower category of rights-bearer in the PWD scheme is a 'platform worker' (PW). A PW is 'any person performing platform work who has an employment contract or is deemed to have an employment relationship as defined by the law, collective agreements or practice in force in the Member States with consideration to the case-law of the Court of Justice'.⁹¹ Although national regimes vary on this question, generally a 'worker' receives remuneration for their economic activities, are subordinated to the control of an employer, and do not assume much business risk.⁹² In the PWD scheme, this is (partially) reflected by the operation of the legal presumption of employment status, which will be triggered by 'facts

⁸⁶ Atkinson and Collins, *New Generation of Rights at Work*, n 8 above, 22-23.

⁸⁷ Consolidated version of the Treaty on the Functioning of the European Union OJ C-326 (TFEU).

⁸⁸ Sacha Garben, 'Article 153 TFEU' in Manuel Kellerbauer, Marcus Klamert, and Jonathan Tomkin (eds), *The EU Treaties and the Charter of Fundamental Rights: A Commentary* (Oxford University Press, 2019) 1373.

⁸⁹ TFEU, Article 16.

⁹⁰ PWD, Article 2(3).

⁹¹ PWD, Article 2(4).

⁹² See Despoina Georgiou and Catherine Barnard, 'The Digitalisation of Work and the EU: Jurisprudential and Regulatory Responses in the Labour & Social Field' in Marc de Vos et al (eds), *The Cambridge Handbook of Technological Disruption in Employment and Labour Law* (Cambridge University Press, 2023) Section III.

indicating control and direction’.⁹³ Only an individual that is classified by the Directive’s scheme and national implementing measures and decisions as a platform worker will receive the benefit of the full range of rights set out therein.

The area where this fragmentation of scope can be seen most clearly is in the rights of the representatives of the respective groups. Silvia Rainone and Antonio Aloisi have analysed the different collective rights contained in the Directive according to whether representatives of self-employed workers (or PPPWs) are included.⁹⁴ The fragmentation is summarised as follows:

Article	Collective rights for workers’ representatives	Inclusion of representatives of self-employed workers
Art. 8(2)	Information on data protection impact assessment	✓
Art. 9(1)	Information on the use of automated monitoring and decision-making	✓
Art. 9(4)	Information on automated monitoring and decision-making and their features, use and changes affecting working conditions	✓
Art. 10(1)	Oversight of the impact of individual decisions taken or supported by automated monitoring and decision-making	✗
Art. 10(4)	Information concerning evaluation of the impact of ADMS	✓
Art. 11(2)	Right to ask for a review of decisions taken or supported by ADMS	✓
Art. 12(2)	Information, consultation and participation rights in relation to occupational safety and health (OSH) risk assessment and introduction of preventive measures	✗
Art. 13	Information and consultation rights on decisions that are likely to lead to the introduction or substantial changes in ADMS	✗

Table 2: Rainone and Aloisi (ETUI, 2024) page 7.

The bifurcation of entitlements to rights within a wider regime is not unique to the PWD. In the UK’s system of employment rights, there are three tiers wherein some rights are extended to ‘employees’ who work under a contract of employment,⁹⁵ others to ‘workers’⁹⁶ and finally some rights are granted to

⁹³ PWD, Article 5(1). For the limits of the Directive’s final drafting here, see Silvia Rainone and Antonio Aloisi, ‘The EU Platform Work Directive: What’s new, what’s missing, what’s next?’ (ETUI Policy Brief, 2024) available at https://www.etui.org/sites/default/files/2024-08/The%20EU%20Platform%20Work%20Directive-what%E2%80%99s%20new%2C%20what%E2%80%99s%20missing%2C%20what%E2%80%99s%20next_2024.pdf, 3-4.

⁹⁴ Rainone and Aloisi, *ibid*.

⁹⁵ See Employment Rights Act 1996, section 230(1) and (2).

⁹⁶ See Employment Rights Act 1996, section 230(3)(b).

self-employed people under health and safety law.⁹⁷ The risks to fundamental rights at work and difficulties around transparency and accountability, however, do not fit neatly with these established tiers of protection. In Section 2 above, the examples mentioned drew upon the experiences of a self-employed contractor, agency staff, workers and employees. Reinforcing the fragmentation of employment rights along the lines of employment status must be avoided when devising a regulatory approach for the UK.⁹⁸

Instead, the UK should use its regulatory autonomy to guarantee any rights and protections that relate to the use of algorithm management systems to all people providing work whose working conditions are determined or influenced by such a system. This scope would extend beyond the Directive's focus on the platform economy and surpass the fragmented approach that was necessitated by the EU's system of competences. Throughout this piece, I have also adopted a broad definition of 'algorithmic management system', thereby grouping together what the PWD calls 'automated monitoring systems' and 'automated decision-making systems' and avoiding the limits of the EU AI Act.⁹⁹ If the UK were to adopt these two shifts in definition and approach, the resultant regulatory strategy would have sufficient flexibility to keep pace with evolving technologies whilst also being fit for purpose in terms of tackling the problems outlined in section 2 wherever they occur in the context of work.

5. A three-legged race: the Role of Social Partnership in Shaping Algorithmic Management

Advances have been made at regional level, such as the PWD, and above I have outlined how the UK could build on that scheme to legislate in relation to algorithmic management nationally. Locally and at workplace level, co-governance and collective bargaining can play (and indeed already have played) a substantial role in achieving progress towards regulatory solutions that balance a desire to allow innovation in management technologies with the imperative that an appropriate range of rights are respected and guarantees put in place. In this final section, I argue that – in common with calls by prominent labour law scholars to 'negotiate the algorithm',¹⁰⁰ – social partnership regarding the design and use of systems is essential to ensure values such as respect for human rights and the pursuit of fair and decent work are elaborated upon and adhered to in the era of algorithmic management.

We have seen above how the PWD seeks to grant worker representatives a seat at the negotiation table before, during and after the implementation of an algorithmic management system. There are numerous

⁹⁷ Health and Safety at Work etc. Act 1974, section 3.

⁹⁸ The current Labour Government has committed to reviewing the 'three-tier' system for employment status and to moving towards a single status of 'worker' after many years of discontent with the current framework: Labour Party, *Labour's Plan to Make Work Pay: Delivering a New Deal for Working People* (2024) 9, available at <https://labour.org.uk/wp-content/uploads/2024/06/MakeWorkPay.pdf>, accessed 22 July 2024, 6-7.

⁹⁹ Contrast the scope of the EU AI Act with the definition adopted here and in Adams-Prassl et al, 'Regulating algorithmic management: A blueprint', n 78 above, 126.

¹⁰⁰ De Stefano, "Negotiating the Algorithm", n 8 above.

benefits for workers and employers in engaging in collective bargaining on these matters. Workers are “on the ground” and are thus likely to have a strong appreciation of how systems will interact with work processes in practice, if they are provided with sufficient transparency to make that contribution. With their representatives, they may offer a different perspective on the risks and impacts that must be considered and mitigated from the very earliest stages of a design or purchase process. For employers, implementation processes that follow may be smoother as a result and the norms agreed better tailored to the specific context of the sector, work and/or workplace.¹⁰¹ Agreements reached can also flex and change over the years and as new technologies are considered for purchase or are designed.¹⁰²

One specific benefit of early dialogue between workplace representatives and employers regarding the purchase or design of a new system that I would highlight is the potential for the employer to act as a conduit for the workers’ concerns to a third-party supplier or developer. A challenge that scholars have already observed is the disconnect between the developer of a system and those that are subject to it.¹⁰³ The developer in this context may be a third-party vendor with a product on the market or an in-house development team. Either way, a management side representative is well placed to put forward the concerns that have been raised in collective negotiations to the developer and seek assurances or mitigation steps to reassure their worker representative counterparts. If this process of negotiation works well, it solves a problem that the law has struggled to resolve thus far.

Co-governance and social partnership at a national and workplace level has already seen success. For example, at IBM in Germany, an agreement was reached between the works council, HR representatives and AI experts that sets out standards for AI systems (e.g. transparency and interpretability) and establishes a basic principle that humans should have the final decision, rather than an AI system.¹⁰⁴ In the Spanish banking sector, workers have been guaranteed the right not to be subject to automated decisions, as well as a non-discrimination right and right to mediation in case of a dispute.¹⁰⁵ As a jurisdiction, Spain also shows the impact of an ‘active state’ that supports the collective regulation of AI.¹⁰⁶ The Spanish “Rider Law”¹⁰⁷ was introduced in 2021, which recognised that platform delivery workers were in an employment relationship and guaranteed additional information rights in regulation

¹⁰¹ Valerio De Stefano and Simon Taes, *Algorithmic management and collective bargaining* (ETUI, 2021) 9.

¹⁰² De Stefano, ‘Negotiating the Algorithm’, n 8 above, 30.

¹⁰³ Atkinson and Collins, *New Generation of Rights at Work*, n 8 above, 22-23 and Oscar Molina et al, ‘It takes two to code: a comparative analysis of collective bargaining and artificial intelligence’ (2023) 29 *Transfer* 87, 100.

¹⁰⁴ Martin Krzywdzinski, Detlef Gerst and Florian Butollo, ‘Promoting human-centred AI in the workplace. Trade unions and their strategies for regulating the use of AI in Germany’ (2023) 29 *Transfer* 53, 63.

¹⁰⁵ Molina et al, n 103 above, 96-7.

¹⁰⁶ *ibid.*

¹⁰⁷ Real Decreto-ley 9/2021, de 11 de mayo, por el que se modifica el texto refundido de la Ley del Estatuto de los Trabajadores, aprobado por el Real Decreto Legislativo 2/2015, de 23 de octubre, para garantizar los derechos laborales de las personas dedicadas al reparto en el ámbito de plataformas digitales (2021) 113 BOE 56733.

to algorithmic management. The Rider Law is an example of the state facilitating social partnership between employers and unions to achieve important steps forward in this area.

At home, a new Labour Government has promised an overhaul of trade union regulation that it is hoped will bolster the position of unions to negotiate in a wider range of workplace settings.¹⁰⁸ Even in an environment hostile to union activity, collective agreements have been reached that touch upon the use of technology in workplaces. For example the Framework Agreement between the Communication Workers Union and the Royal Mail Group has a Technology section that recognises the need to gain support amongst employees for any new technology and reaffirms that right to privacy at work and the obligations of mutual trust and confidence between employees and employers.¹⁰⁹ In Scotland, the Scottish Government and the Council of Scottish Government Unions have agreed a right to disconnect from technology outside of agreed normal working hours.¹¹⁰

In Wales, an existing commitment to social partnership has been ‘strengthened’ by the introduction of the Social Partnership and Public Procurement (Wales) Act 2023.¹¹¹ The Act establishes a tripartite Social Partnership Council for Wales, consisting of Welsh Government members, employers’ representatives and workers’ representatives, which can provide information and advice to Welsh Ministers.¹¹² The Act imposes a duty upon some Welsh public bodies to ‘seek consensus or compromise’ with recognised trade unions or other staff representatives when meeting objectives set out in the Well-being of Future Generations (Wales) Act 2015.¹¹³ From the perspective of algorithmic management, an important goal is a ‘prosperous Wales’, meaning

‘An *innovative, productive* and low carbon society which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through *securing fair work*.’¹¹⁴

This careful balance between innovation and securing fair work has been put into practice already. For example, in terms of agreement, the Workforce Partnership Council – a tripartite body that covers public

¹⁰⁸ *Labour’s Plan to Make Work Pay*, n 98 above, 12-13.

¹⁰⁹ RMG & CWU, Key Principles Framework Agreement (2020) available at https://www.cwu.org/wp-content/uploads/2020/12/Joint-draft-KEY-PRINCIPLES-FRAMEWORK-AGREEMENT_18_12_20_Final.pdf [2.5].

¹¹⁰ See The Scottish Government, *Public sector pay strategy 2023 to 2024: technical guide* (2023) available at <https://www.gov.scot/publications/public-sector-pay-strategy-2023-24-technical-guide/pages/3/> [3.28]-[3.30] and Prospect, ‘Prospect and CSGU agree Right to Disconnect policy with Scottish Government’ (Prospect, 2022) <https://prospect.org.uk/news/prospect-and-csgu-agree-right-to-disconnect-policy-with-scottish-government>.

¹¹¹ The Welsh Government, *Review of social partnership within the Welsh Government* (2024) available at <https://www.gov.wales/review-social-partnerships-within-welsh-government-html>.

¹¹² Social Partnership and Public Procurement (Wales) Act 2023, section 1 and section 2.

¹¹³ Social Partnership and Public Procurement (Wales) Act 2023, section 16.

¹¹⁴ Well-being of Future Generations (Wales) Act 2015, section 4 (emphasis added).

services in Wales – has agreed Principles of Digitalisation that guide the introduction of digital technologies in public sector workplaces.¹¹⁵ The Principles are employee voice and participation; flexible and secure job change; opportunity for progression and growth; health, safety and well-being, and respective workers’ rights.¹¹⁶

Dialogue with workplace representatives throughout technology production processes have also been productive. For example, in Neath Port Talbot, human resources staff worked with an IT contractor to introduce process automation for high volume processes.¹¹⁷ Staff were included in the design and implementation process, learned about the system as it was established, and found that it did free them from repetitive work and enabled them to take up proactive work. These examples show that collective consultation can produce innovative outcomes, in terms of agreements and even in product development.

6. Concluding remarks

There is an undisputable need to regulate the technology that manages people. The better questions are *how* we should engage in the process of setting boundaries and establishing a range of rights and responsibilities that are fit for purpose in the era of algorithmic management and *what* those boundaries, rights and responsibilities should be. In this paper, I have argued that the UK can learn a great deal from the EU as the current leaders in the race to regulate algorithmic management. The Platform Work Directive has made substantial steps forward by drawing a set of tailored “red lines” around particular uses of algorithmic decision-making, as well as by introducing rights to transparency, explainability, review, and oversight that integrate individual and collective dimensions.

The provisions of the Directive should serve as legislative inspiration within the UK at a variety of levels. The substantive provisions are a sound foundation for a general regulatory approach to the problems of algorithmic management albeit that their scope must be expanded beyond the context of digital labour platforms and move past the fragmentation necessitated by the EU’s unique constitutional constraints. Beyond this interplay between legislators, how the Directive has rendered general principles such as transparency, human oversight and review, and respect for fundamental rights concrete in the setting of algorithmic management should be of interest to anyone engaging in collective negotiation or social partnership across the UK.

¹¹⁵ The Welsh Workforce Partnership Council, *Workforce Partnership Council agreement: partnership and managing change* (2nd edn, 2021) available at <https://www.gov.wales/workforce-partnership-council-agreement-partnership-and-managing-change-html#128586>.

¹¹⁶ *ibid.*

¹¹⁷ The Welsh Government, *The future of work: the impact of innovative technology on the workforce* (2021) available at <https://www.gov.wales/the-future-of-work-the-impact-of-innovative-technology-on-the-workforce-html> [62].

Social partnership has already led the way in several respects and change is achievable in much shorter timescales. There is an opportunity, through mechanisms such as the Welsh social partnership approach, to use co-governance to move ahead rapidly and demonstrate that one value of social partnership is reaching consensus on principles, rights and responsibilities that work well for all partners. One can hope that, once shown to be workable on a local scale, similar rights and responsibilities could be reflected via legislation. The arrival of a Labour Government committed to fostering ‘respect and collaboration’ between unions and businesses¹¹⁸ only increases the likelihood of progress being made on this urgent regulatory agenda for people at work.

¹¹⁸ Department for Business and Trade, Justin Madders MP, The Rt Hon Angela Rayner MP and The Rt Hon Jonathan Reynolds MP, ‘Business leaders and unions to work hand in hand to deliver new plans to Make Work Pay’ (Press release, 14 August 2024) available at <https://www.gov.uk/government/news/business-leaders-and-unions-to-work-hand-in-hand-to-deliver-new-plans-to-make-work-pay>.