

GMB

U N I O N

**CONGRESS 2022
CEC SPECIAL REPORT ON
THE FUTURE OF WORK**

**MAKE
WORK
BETTER**

Table of Contents

Executive summary.....	4
Introduction.....	5
Note on member survey.....	6
The difficulty of predicting the future.....	6
How work is changing.....	8
AI.....	9
Automation.....	13
Monitoring and surveillance.....	17
Digitisation and platform work.....	22
The future of work: public policy.....	27
The future of work: An industrial response.....	29
Work and an aging population.....	30
Trade in an uncertain world.....	32
Conclusion and summary.....	33
Appendix – GMB members’ survey results.....	36

List of acronyms used in this report

AI	Artificial Intelligence
CCTV	Closed Circuit Television Cameras
DPA	Data Protection Act
HGV	Heavy Goods Vehicle
HSE	Health and Safety Executive
LGV	Large Goods Vehicle
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics
WFH	Working from home

Executive summary

GMB recognises the reality of change, and we should campaign and bargain to enhance (and not replace) our members' jobs as new technology is introduced **(Introduction)**. Predicting the future of work is inherently difficult but some trends can be identified **(The difficulty of predicting the future)**.

The economy and many workplaces are undergoing structural changes that have been accelerated by the pandemic. New technology – from artificial intelligence to advanced robotics and new forms of monitoring – are having positive effects on some of our members and negative effects on others. New rights at work are needed to adapt to the changing world of work.

Digitisation is making information more readily available than before to many, but the growing 'digital divide' is leaving many workers (and retired workers) behind. Access to employer and Government provided training and non-digital rights of access to services are essential as existing jobs are changed and new industries emerge.

The platform economy – where work is allocated through online programmes – is growing rapidly. GMB is organising and winning recognition for platform workers. Industrial campaigns should be our immediate priority, coupled with new measures to enhance and enforce employment rights in the sector **(How work is changing)**.

Existing workers' information rights are under threat, and new statutory rights are needed to protect workers in response to technological change **(policy response)** alongside new workplace consultation rights over technology and data **(industrial response)**.

Long-term changes in the UK's population and world trade mean that employment may grow and shrink overall in key public services, while there may be opportunities to reshore manufacturing jobs. These areas should be policy priorities for GMB in the years ahead **(Work and an aging population and International trade)**.

1. Introduction

- 1.1 The world of work is changing.
- 1.2 In 2022, as we look to the future, the pandemic and war in Europe overshadow our horizon. These historic events are accompanied by fundamental changes that predated the pandemic. All these trends seem likely to change the profile of employment and many of our members' experience of work.
- 1.3 Many workplaces are fragmented. Inequality has risen and the share of wealth controlled by the top has grown. Our members face forms of automation, the challenges of an aging population, and the consequences of a redrawing of international trade.
- 1.4 No report can claim to know the future, or to describe in detail the changes that will affect each of our members' industries. History is littered with failed predictions about the future of work. We can, however, attempt to plan for the future on the basis of the best available evidence. And many apparently new challenges have been faced before, in different forms.
- 1.5 GMB is not anti-technology. Technological progress can create jobs and improve work. But the risk of displacement is also real. Too often, changes in the workplace are poorly thought through and training is not available. Monitoring and surveillance culture is also becoming more common across the workplaces that we organise.
- 1.6 Our response is grounded in our values of industrial solidarity. We are not hostile to technological progress. The union has always used technology to build our members' power. Nor do we seek to hold back the tide or hold to idealised visions of the past. We must face the world as we find it, not as we might wish it to be.
- 1.7 This Special Report sets out research on the future of work and a policy and industrial response that we believe is fit for raising workers' pay and power in the workplace of today and tomorrow.

2. Note on member survey

- 2.1 This report is informed by a survey of a random sample of working GMB members that was carried out in April 2022. The survey achieved more than 1,500 responses. More details can be found in the appendix to this report.
- 2.2 Quotes from GMB members are reported in the following format:

‘Communication happens via email and last minute. School’s using Google Classroom but does not provide training for new employees and assumes they’d know it.’

Cover Supervisor

- 2.3 In a small number of cases, details that could potentially be used to identify respondents have been omitted from quotes or job titles.

3. The difficulty of predicting the future

- 3.1 In many ways, the future of work is already with us. Technology and management approaches in some rapidly growing sectors – such as logistics and warehousing – go on to be adopted in other industries. At the same time, the future of the economy and technological change are notoriously difficult to predict.
- 3.2 In the late 19th century, the socialist William Morris imagined a future in which unwanted work had been all but eliminated. Close to a hundred years ago, the liberal economist John Maynard Keynes predicted that by 2030 machines would have released the material ‘bounty of nature’ and thought most people would work a ‘three hour shift or a fifteen-hour week’ not to survive, but to alleviate boredom.¹
- 3.3 Many more recent predictions have not fared better. Alarming predictions that taxi, private hire, and HGV driving roles were about to be made obsolete by driverless vehicles have not yet been

realised.

- 3.4 We cannot know the future with certainty. Current trends may be overtaken by unforeseen events, or by technological breakthroughs that are difficult to imagine today. This report sets out an assessment of the changing world of work based on the best evidence available today, but its conclusion may need to be revisited at future Congresses.

Predicting the future of work – the union in 1965

The first Special Report was published by in 1965 on the topic of ‘technological change.’

It was two years after Harold Wilson had famously predicted that a new economic model would be forged in ‘white heat of the technological revolution,’ and the report echoed much of the optimism of the age.

Though disruption could result in ‘severe strains,’ technology – the report argued – promised ‘the elimination of much drudgery and routine from work and safer, healthier and generally more congenial conditions. And it will provide the weapons to conquer poverty anywhere in the world.’ Innovation would ‘ultimately bring us within reach of material abundance.’

What did the union get right and wrong? It correctly predicted that ‘the proportion of workers directly engaged in productive processes would fall further,’ while employment in administration and ‘the service industries will continue to increase, probably at a more rapid rate.’ It also foresaw a fall in average working hours and the rise of the school leaving age.

A prediction that the retirement age would be lowered due to machines eliminating demand for work has aged less well. The report also reflected the assumptions and prejudices of its time. It argued that ‘The sick and partly incapacitated who are compelled to work ... [and] married women for whom the present situation involves a conflict between economic necessity and the rearing of children will be able to stay at home.’

4. How work is changing

- 4.1 The pandemic and the great shortage of labour has significantly accelerated the adoption of new technology and working patterns. Against the backdrop of record vacancy growth, some employers are hastening investment in automation to raise output as an alternative to hiring works.²
- 4.2 Many of our members had to abruptly adjust to new working patterns, either in the normal workplace or through working at home. More than a third (34 per cent) of GMB members report that new technology that affects their jobs have been introduced during the pandemic.
- 4.3 Some of the services that our members provide shifted partly online – including in schools, social work, and patient care. GMB itself held more meetings, and provided more information, digitally that during any other period in its history.

‘The NHS adapted existing technology very fast at the start of the pandemic to allow those of us at risk to work away from acute hospitals.’

NHS Quality Improvement Manager

- 4.4 Trends that existed before the pandemic have accelerated. The growth in the warehousing and logistics sector has been rapid by some measures: the number of business premises in the sector has almost doubled over the last decade. But there are only 20 per cent more jobs in the sector over the same time, and average wages remain lower and working hours remain higher than for all jobs.³ As this report discusses, GMB is organising and winning advances for our members in these growing sectors.
- 4.5 The pandemic has shown us what can be achieving using technology – but the realities of the loss of face-to-face contact, and the isolation experienced by some people, must be confronted.

GMB should embrace new technology – not as a substitute for proven organising techniques, but to provide services that are suitable for adaptation to our members faster and at a greater scale.

- 4.6 In the wider world of work, many employers see investment in technology as a means of boosting productivity and profitability. Technological change can either enhance or replace jobs. This two-sided dynamic is being experienced by our members. While nearly a quarter of members (23 per cent) say that new technology has made their jobs better compared to five years ago, almost one in five (18 per cent) say that they are worried that their job will not be needed five years in the future due to new technology.

The challenge for GMB is to understand these opportunities and threats, and respond in a way that builds our members' power.

- 4.7 This section of the report describes some of the innovations that are changing the world of work.

5. AI

- 5.1 Computer programmes are increasingly used by employers and governments to interpret work, and to make decisions that affect our members.
- 5.2 The use of AI is growing rapidly. According to a 2018 survey, one in eight HR officers said that their organisation was using 'artificial intelligence to develop people reports.'⁴ As a 2021 review for the UK Government found, 'the use of algorithms in recruitment has increased in recent years, in all stages of the recruitment process. Trends suggest these tools will become more widespread.'⁵
- 5.3 One major HR provider claims that:

*'Machine learning powers faster and more streamlined HR functions across the entire employee lifecycle. Sifting through tremendous volumes of data to identify patterns and make predictions about future events, machine learning increases efficiency and eliminates many tasks that were once manual.'*⁶

What is Artificial Intelligence? AI explained

The term Artificial Intelligence (AI) can mean a number of things.

Traditionally, a process might be automated through a relatively simple list of instructions. These programmes normally follow a logic that is easy for humans to understand (for example, a programme might tell a computer then 'if X condition is met then execute Y action').

Increasingly, employers are investing in a form of AI called **machine learning**. This process involves a computer identifying patterns in huge amounts of data, and then making predictions. While the theories behind machine learning have been known for decades, the massive expansion of data storage and processing power has made it a more viable technique in recent years.

In theory, machine learning can be used to perform tasks as diverse and advanced as driving cranes to diagnosing medical conditions. However, it can be difficult to understand how the computer reached its conclusions, and there are a number of challenges associated with machine learning that GMB members should be aware of.

The term **algorithm** can be used to describe any sequence of instructions that programme a computer.

- 5.4 AI has also been introduced across public services. AI is used to screen applications across civil service recruitment, and the Cabinet Office's next head of HR will be expected to demonstrate how 'AI and digitalisation can be leveraged for organisational and citizen advantage.'⁷

- 5.5 One UK police force reportedly uses a computer programme to decide which crimes to investigate – which led to a halving in the number of investigations that were pursued.⁸
- 5.6 These models promise employers great things, but they face a profound challenge. Machines trained on databases drawn from a discriminatory society replicate discrimination on an industrial scale. Research suggests that in the UK candidates from ethnic minority backgrounds have to send as much as 60 per cent more applications than white candidates to obtain an interview⁹ – this systematic human discrimination has been replicated by machines.¹⁰
- 5.7 Reports of AI with discriminatory traits are widespread. In one high-profile example, an Amazon department in Edinburgh reportedly developed an AI recruitment system that systematically discriminated against women.¹¹ The Government’s Centre for Data Ethics has warned that disabled workers may also be discriminated against by automated processes.¹² These biases may be made worse by a lack of diversity in the design workforce: only 24 per cent of AI workers in the UK are women, and more than half of AI firms do not employ any women at all.¹³
- 5.8 Complexity is a further challenge to the use of AI in employment. The machine learning form of AI is often described as a ‘black box’ – in other words, its inner workings and results cannot be easily understood by humans. It can be hard even for experts to understand how a programme has reached its conclusions. While efforts are being made to develop alternative and ‘explainable’ alternatives, as one academic has warned: ‘interpretable and explainable [algorithms] – that’s still quite far off.’¹⁴
- 5.9 GMB members report too many examples of algorithms and other programmes producing inaccurate results, or of those results being misused by their employers. Only 28 per cent of GMB members are confident that they know how their employer uses their information,

and close to one in four (24 per cent) say that automatic processes ‘often make errors about my pay, shift allocation, or performance.’

‘We are constantly told it is accurate, but we repeatedly get emails that have identified ‘issues.’ If we earn a bonus it can be taken away after that time if we are judged not to have achieved a target. The app is unfit for purpose.’

Technical Engineer

AI in the workplace – Information Commissioner’s Office guidance

- Bias and discrimination are a problem in human decision-making, so it is a problem in AI decision making
- It is hard to build fairness into an algorithm
- The advancement of big data and machine learning algorithms is making it harder to detect bias and discrimination
- [Employers] must consider data protection law AND equalities law when developing AI systems
- Using solely automated decisions for private sector hiring purposes is likely to be illegal under the GDPR
- Algorithms and automation can also be used to address the problems of bias and discrimination

Information Commissioner’s Office, Six things to consider when using algorithms for employment decisions. December 2020

‘My company go for blood with any misdemeanour and lay it all out like a witch hunt ... I’m just a series of zeros and ones that are pumped into an algorithm and is then interpreted in any way that suits them.’

Distribution Technician

5.10 There is a real risk that GMB members will be governed at work by forms of AI that reflect wider discrimination, and which are not truly understood by employers. No worker should be subjected to remote and unchallengeable decision-making. Radically improved transparency and accountability rights at work will be essential as the use of AI in employment grows.

6. Automation

6.1 It has been claimed that the world of work is facing a 'new wave of automation'¹⁵ – both before and during the pandemic. Automation is nothing new to the labour movement. Union activists have fought for generations both against the erosion of good work and the benefits that some forms of automation can bring.

6.2 Workers can potentially benefit from the automation of repetitive and physically onerous tasks. The significant fall in the workplace fatality rate since the 1980s can, in part, be attributed to the automation of dangerous duties.¹⁶ Digital design and testing processes have dramatically reduced the time that it takes to bring some manufacturing products to market. Some GMB members told our 2022 survey that well-designed automation had improved their jobs:

'Technology is very welcome and has improved a lot of processes and made policies and procedures more streamlined.'

Auditor

'Technology has improved my job – quicker completion of referrals.'

Safeguarding Information Assistant

6.3 At the same time, there can be real and negative consequences of automation. Each period of industrial disruption and job losses

caused by increased competition or technological change has had serious and negative economic and social consequences.¹⁷ Today, the consequences of internet shopping on the high street can be seen in every town and city. 18 per cent of GMB members report being concerned that their job will not be needed due to new technology in five years' time.

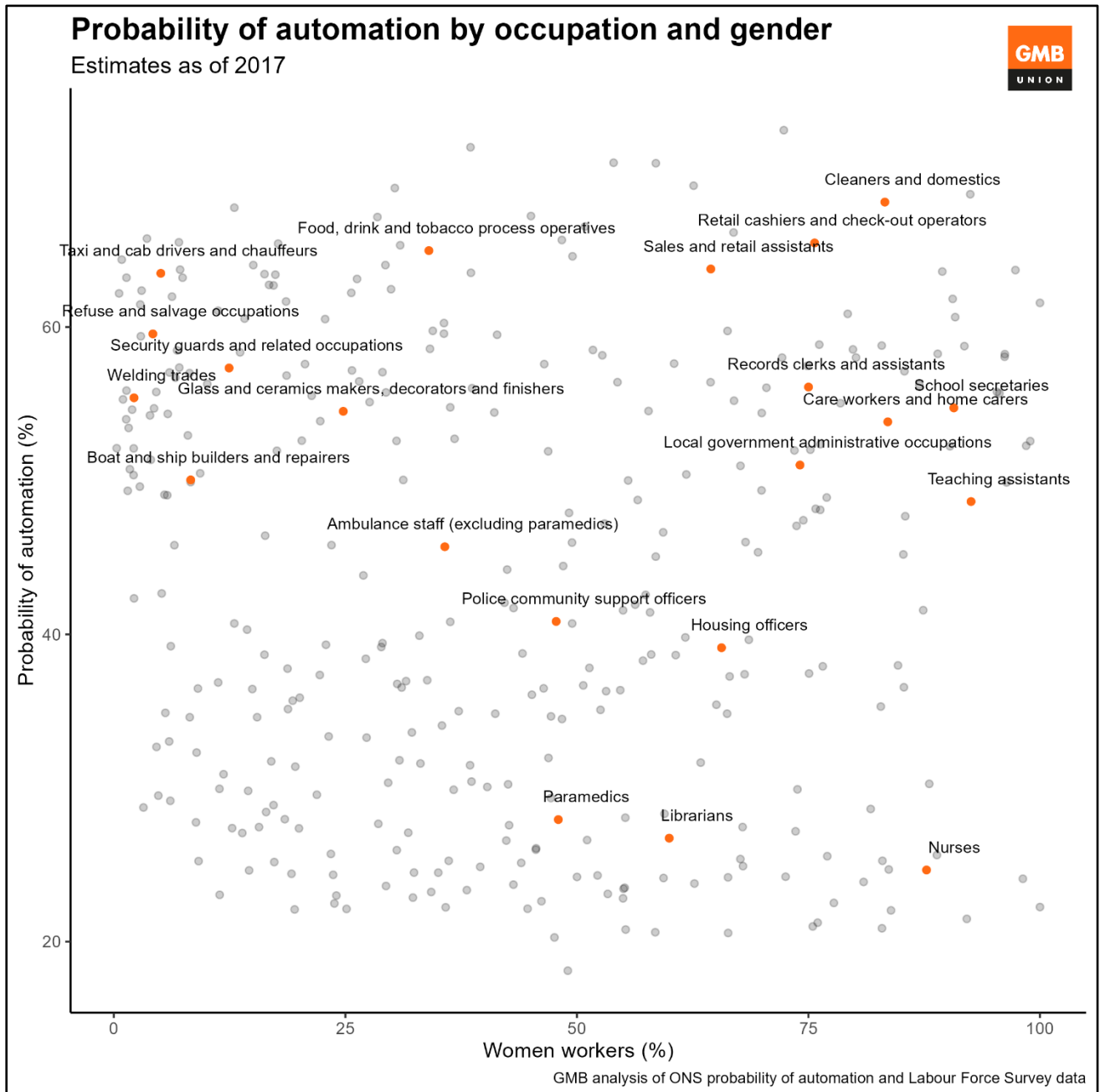
- 6.4 According to one recent study, exposure to robotics raised the risk of job losses in the UK more than cheap imports from China.¹⁸ GMB members have experienced the hard edges of automation, including in retail¹⁹ where our research suggests that almost 135,000 'traditional' brick-and-mortar retail jobs have been lost since the start of the pandemic.²⁰ Our retail members' jobs have been profoundly affected by the introduction of automated tills, which have displaced some jobs, and also increased the demands on workers. In response, GMB supports (and has called for) fundamental reform to business taxation to create a level playing field between in-store and online retail.

'I run 12 self service machines on my own ... It's really hard work, draining and most days exhausting. The management team come over and have a word if you have stopped for a second to rest ... It's an awful lot to do when you're busy and no one to help you.'

Retail worker

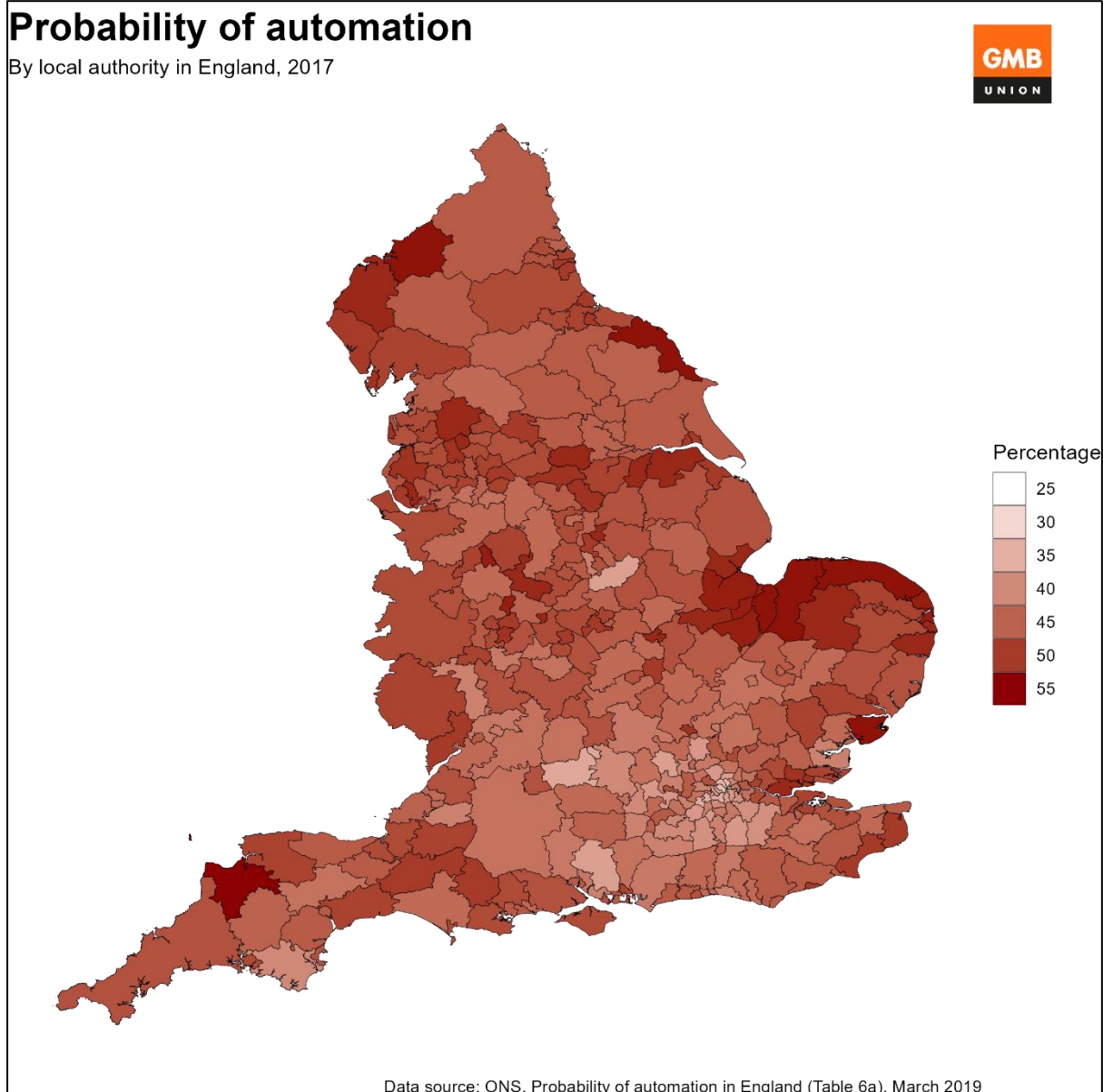
- 6.5 Assessments of the impact of automation vary but it is clear that some groups of workers are affected differently. While some 'white collar' roles are believed to be at high risk of substitution, lower-paid workers are disproportionately affected. 7 out of 10 workers in occupations at the highest risk of automation are women: a million women were estimated to be at 'high risk' of automation, compared to 437,000 men.²¹
- 6.6 A sampling exercise of occupations represented by GMB found that while women were more likely to work in roles that could be partly

automated (such as retail and school support staff roles), many roles that are predominately filled by men are also likely to be changed by automation. These roles included reference and salvage occupations, and security roles. It should be noted that the following graphs represent jobs that could be changed by automation and not jobs that will necessarily be automated completely.



6.7 The effects of automation are also not felt evenly across the UK. The ONS estimated that jobs were much more likely to be changed by

automation in coastal communities, the South West, Midlands, and North, and in lower-income areas.²² This geographical mix would be consistent with international experience: at China's automated Yangshan Deep Water Port, automation has reportedly reduced the number of workers from 700 to 100.²³



6.8 It is unclear how many jobs may be completely displaced by automation. One highly publicised 2013 study argued that more than a third – 35 per cent – of jobs in the UK were at a high risk of being automated over the next ten to twenty years.

- 6.9 In 2016 an OECD report based on different methodology found that that 10 per cent of UK jobs were at high risk of full automation, and that a further 25 per cent of jobs were likely to change as a result of automation. A third of the lowest paid jobs were assessed to be at risk, compared to none of the highest paid jobs.²⁴
- 6.10 There are good reasons to believe that the worst-case scenarios will not be realised. Robots and other forms of automation tend to be highly effective at a limited range of tasks but they are difficult to adapt. Even Amazon – a company that has invested heavily in automation – has described itself as being ‘very far from the fully automated workstation that we would need.’²⁵
- 6.11 The complete automation of work – and the uncoupling of capital from labour – has not been realised. The American electric car manufacturer Tesla had to reverse plans to eliminate too many workers, blaming ‘excessive automation,’²⁶ in order to meet production targets. Driverless vehicles remain unsuited to real-world conditions despite billions spent in research and development.²⁷
- 6.12 A world without work looks as far away now as it did more than a hundred years ago. But, as academics have warned, if we ‘only keep an eye out for roles that are likely to be taken on in their entirety by machines ... [we] will seriously underestimate the impact of technological progress on the labour market.’²⁸ Some of those changes will be examined in the next section of the report.

7. Monitoring and surveillance

- 7.1 Workplace surveillance refers to ‘management’s ability to monitor, record and track employee performance, behaviours and personal characteristics in real time.’²⁹
- 7.2 Workplace monitoring or surveillance of some kind is now widespread. Telematics, CCTV, and recordings all collect information on our members. Performance is increasingly tracked through dashboards and metrics that are sometimes hidden from union

members. As discussed later in this report, automatically collected information (such as through barcode scanning) has been used by some employers to summarily dismiss workers.

- 7.3 Modern surveillance software can cover the monitoring of emails and files, webcams on work computers, tracking of when and how much a worker is typing, calls made and movements made by the worker (using CCTV and trackable devices).³⁰

‘Cameras [are] focused in cab. Watching you constantly. It really is not a good thing. You cannot fully focus on driving, because you are being watched constantly. It makes me feel like I’m not trusted or untrustworthy.’

HGV Driver

- 7.4 Some GMB members told us that they welcomed forms of recording – such as body cameras, CCTV, or call recording – when those records can be used as objective evidence following a complaint. This was particularly true of our members in sectors such as schools and ambulance services. But for others, trust in technology was undermined when management had misused CCTV, or calls recorded for ‘training and monitoring purposes,’ for performance management and disciplinary reasons. A third of GMB members (32 per cent) agreed in April 2022 with the statement that ‘surveillance by my employer has a negative impact on my mental health or sense of wellbeing at work.’

‘It’s been dreadful. My work phone is closely monitored and assessed for call answering. I feel under stress all the time with call monitoring and have been told off for not answering enough calls. My stress levels are off the scale.’

Housing Services Assistant

- 7.5 Surveillance now extends to workers' own homes: a 2020 YouGov poll found that one in five employers were planning on investing in remote monitoring software targeted at those working from home.³¹ 21 per cent of GMB members said that they were subject to screen monitoring software – this rose to 39 per cent of GMB members who now work from home.

'New technology monitors everything we do down to key depressions and all sites [visited] and work [compliance] on our desk/lap tops.'

Technical Support Officer

'Surveillance has vastly increased since wfh.'

Licensing Officer

- 7.6 We recognise that surveillance may be experienced differently by workers attending a separate workplace and by those who work from home, and guidance should be prepared for use by both groups of workers.
- 7.7 Surveillance by the employer isn't new. The American car manufacturer Henry Ford created a special department in the 1910s to act as a 'secret police' ensuring that workers lived up to his personal standard outside of the factory – a form of paternalism that was replicated in 'company towns' across the UK.
- 7.8 Investigators would probe every aspect of employees' lives, showing up unannounced at their homes with queries about spending habits, alcohol consumption and marital relationships. Workers falling foul could be blacklisted, have their pay docked or be denied prospects for promotion.³² In the UK, the blacklisting employers' group the Economic League (and its successor in the construction sector, the Consulting Association) left a trail of broken lives from the 1920s to the late 2000s.
- 7.9 These forms of surveillance but arose from the same economic motivations and desire for control that drive many employers to

carry out monitoring and surveillance of workers today. What has changed is the technology. When the Consulting Association was raided in 2009, employers were still faxing across names to be checked against a card index system.³³

7.10 By contrast, in 2015, Amazon was accused of keeping its workers under surveillance in Germany via the mobile devices that all Amazon warehouse workers carried round with them to scan parcels. The resulting reports included lines such as:

*'The employee was inactive from 08:15 to 08:17 (2 min). This was seen by ---- (Lead) and ----- (Area Manager). ----- came back from the toilet with ----- (employee). Then she had a conversation with ----- at work station 01-01 in Hall 2. At 08:17 she continued working.'*³⁴

7.11 In one fulfilment centre in the United States, similar technology was used by Amazon in firing 'hundreds' of employees at a single facility in the United States between August of 2017 and September 2018 for failing to meet productivity quotas, using technology which 'automatically generates any warnings or terminations regarding quality or productivity without input from supervisors.'³⁵

'Scanners recording how much you pick per hour & to the minute how long you have for meal break, if not picking enough or 1 minute late from break you are confronted about it.'

Warehouse Operative

7.12 On the basis of continual monitoring and an internal algorithm, Amazon has introduced progressively tougher targets. GMB has argued that the company's punishing targets are contributing to a poor health and safety record. The union's Freedom of Information Act research found that more than a thousand serious health and safety incidents were reported to the regulator between 2016/17 and

2020/21, and that ambulance callouts to Amazon sites rose by 56 per cent during the pandemic.³⁶

- 7.13 Amazon even reportedly developed tools that allowed the employer to keep workers' closed Facebook groups under surveillance and identify.³⁷ Many multinational corporations maintain a 'Global Security Operations Center' that monitors risks to the company, including theft, protests, and unionisation.
- 7.14 Even apparently innocent data collection can be misused by employers. GMB has represented members whose vehicle (telematic) data was cited in disciplinary cases, on the spurious grounds that more efficient driving methods could have been employed. Such abuses of data by employers can make the introduction of the most apparently routine information collection contentious.
- 7.15 TUC research has found that since the start of the pandemic:³⁸
- 60 per cent of workers believe they have been subject to some form of surveillance and monitoring at their current or most recent job.
 - Three in ten workers agree that surveillance has increased since the outbreak of Covid-19.
 - Two of the three sectors with the greatest proportion of workers reporting surveillance are those in which GMB organises members in. The three are: financial services (74 per cent), wholesale and retail (73 per cent), and utilities (73 per cent).
- 7.16 Other recent research, based on workers' experiences during the pandemic, found that 'the use of employee monitoring tends to indirectly reduce the well-being of remote workers by increasing the likelihood of conflict [and] longer hours' but that these effects can be mitigated if workers have 'autonomy ... and input into how monitoring is rolled out and implemented.'³⁹

- 7.17 Surveillance at work is not a new problem, but there are now many more methods of gathering information on workers. There are protections in law – under the Data Protection Act 2018 and the Information Commissioner’s Office’s Employment Practices Code – if information is not collected for a clear and advertised purpose, and covert surveillance is only permitted in limited circumstances.⁴⁰
- 7.18 In practice, these requirements are often disregarded by employers. Greater awareness of the law and stronger enforcement should be part of GMB’s response to the rise of surveillance in the workplace.

8. Digitisation and platform work

Digitisation

- 8.1 Information can be collected, stored, and transmitted faster than ever before. GMB is embracing technology to strengthen our industrial work, including through developing a new series of digital reps’ tools for use in bargaining. The union is leading the campaign to organise digital platform workers (see below). But the digitisation of essential goods and services is creating a ‘digital divide’ and excluding some groups in society.
- 8.2 Many services and sources of information have moved to a ‘digital-first’ approach. In practice, this often means ‘digital-only.’ GMB has worked through the TUC to draw attention to the problems of accessing Universal Credit (one in three Citizens’ Advice Bureau Universal Credit cases in Scotland are linked to digital access).⁴¹
- 8.3 The loss of person-to-person services are compounding the growth in loneliness across society. These problems will only get worse as traditional services – such as libraries and post offices – are closed. Half of the lowest-income households do not have an internet connection. GMB believes that the plan to enforce a switchover from analogue to digital landlines by the end of 2025, which have been condemned by the National Pensioners’ Convention, will increase the

risk of members being left unable to access essential and emergency services.

- 8.4 The digitisation of services also poses challenges at work. GMB has seen an increase in the number of members who are having to seek adult diagnoses for conditions such as dyslexia following an employers' decision to implement new processes – support materials and a model agreement are available through the union's *Thinking Differently at Work* campaign.⁴²
- 8.5 Access to training is a serious problem. GMB members report that they want the opportunity to learn new skills, but only 23 per cent of members say that their employer provides high-quality training when new technology is introduced. Training is often of very poor quality and expected to be completed outside of working hours.

'All this new technology has been introduced and no training given, instead there are screeds and screeds of documents to read, whilst trying to do your work at the same time, there is no time laid aside for actual training.'

Medical Secretary

- 8.6 GMB believes that there should be a duty on public authorities and large private companies to provide in-person or non-automated telephone alternatives to 'digital-first' services wherever possible, subject to consultation with the union members who deliver those services. Alongside employer-provided training during normal work hours, the Government must provide access to high-quality training, including on occupational and digital skills, through a range of approaches.

Platform working

- 8.7 GMB is leading the union movement's efforts to organise platform workers and make platform work better through collective agreements. As the 2017 Special Report carried by Congress made

clear, our first priority is to secure collective recognition and build workers' organisation in new and emerging sectors.

8.8 Although there is not yet a commonly agreed definition of 'platform work,' it is a form of labour that is changing all our lives. For many of our members, work is now found or allocated using a programme (the platform) over the internet. Many familiar services are increasingly performed this way – from hailing private hire and taxis to ordering deliveries.

8.9

Poling suggests that as many as 4.4 million people may now be platform workers. The share of the labour force that accessed work in this form at least once a week grew from an estimated 6 per cent in 2016 to 15 per cent in 2021.⁴³ Nearly a third (31 per cent) of GMB members surveyed in April 2022 said that a computer programme or app allocated tasks as part of their job, and 30 per cent said that apps were used to review their performance or calculate their pay.

8.10 Many people use platforms to supplement incomes from more traditional employment. For some, this is a consequence of the squeeze in traditional incomes and the devaluation of social security – a 21st century equivalent of the home working that supplemented previous generations' main incomes. For others, including thousands of GMB members, platforms are now the main source of work.

8.11 It is sometimes asserted that platform working is inherently exploitative. It is true – as Congress stated in 2017 when it carried the Special Report on Insecure Work – that 'flexibility' is all too often one-sided. Exploitation can be found in platform work: one example is described below. Many platform workers are classified as self-employed, or 'limb b' workers,¹ and do not have recourse to full employment rights.

¹ Workers are referred to as 'limb (b)' workers, in reference to section 230(3)(b) of the Employment Rights Act 1996. 'Limb (b)' workers are covered by some employment rights (such as the National Minimum Wage and a right to sick leave). However, workers are not entitled by law to additional rights held by employees, such as the right to Statutory Sick Pay or protection against unfair dismissal.

- 8.12 It is disappointing that, after years of reports and promises of action, the UK Government has continued to delay in bringing forward changes required to end exploitation. Unions should not have to take employers to court to get a determination of whether members are employed, workers or self-employed. An independent body with union representation and teeth to enforce decisions could represent decisive progress. That would help to end exploitation of those workers incorrectly classified.
- 8.13 The pandemic brought into sharp focus the inequalities and lack of rights that self-employed workers have. Yet these workers pay tax and national insurance too. For too long, the union movement has focused on employed workers' rights without a matching focus on the rights of the self-employed. GMB calls for all workers, irrespective of their employment status, to have the same fundamental rights, benefits, and access to justice to challenge unfair decisions and exploitative treatment. The GiG and Platform economies should not be a Wild West for workers' rights and exploitation.
- 8.14 Platform working challenges existing concepts of employment relations. A number of employers have been taken to court to establish employment status – including by GMB. At the heart of these cases was a single question: are platform workers classed as self-employed, or are they workers?⁴⁴ GMB has supported legislative proposals to provide greater simplicity, but our focus remains on securing effective enforcement of existing laws, securing day one equal rights for all workers, and improving employment standards through collective agreements.⁴⁵
- 8.15 In May 2022, GMB Union and Deliveroo signed an historic union recognition deal – the first of its kind in the world – covering the company's more than 90,000 self-employed riders. Under the Agreement, GMB has rights to collective bargaining on pay and consultation rights on benefits and other issues, including riders' health, safety and wellbeing.

Exploitation in platform working: Amazon Mechanical Turk

Amazon – one of the world’s most valuable companies – owns its own digital platform. In Amazon Mechanical Turk’s own words, the platform ‘makes it easier for individuals and businesses to outsource their processes and jobs to a distributed workforce who can perform these tasks virtually.’

Typical tasks include processing receipts and describing images. Much of the work is used to train the Artificial Intelligence programmes described earlier in this report.

Amazon describes the people who perform tasks as ‘workers’ – but they have no employment rights. Initial piece rates are extremely low and workers are not paid for time spent searching for work.

One 2017 study of almost 3,000 American Amazon Mechanical Turk workers found that their average hourly earning was just \$2. Only 4 per cent of workers earned more than the federal National Minimum Wage.

8.16 While GMB is campaigning to end exploitative contracts, many of our members report that they want to balance employment rights with the ability to structure their own hours and own shift patterns. There is no legitimate defence of bogus self-employment and GMB will always campaign for day one equal rights for all workers, but it must be recognised that expectations of work are changing for many.⁴⁶

8.17 Platforms represent a change in the labour market. And the growth in platform working demands an industrial response.

8.18 GMB’s long record of campaigning for the rights of platform workers culminated in the signing of the historic Uber recognition agreement in May 2021. Under the agreement, up to 70,000 Uber drivers are now entitled to union representation under an agreement that covers areas including national earnings principles, pensions, health and safety, and support for members who lose access to the Uber app.

The recognition agreement in turn built on the ground-breaking 2019 agreement with Evri (formerly Hermes).

8.19 GMB is not, and will never be, an uncritical defender of any employer. Our members will always come first. Exploitation can occur via platforms – as it can through all employment relations. But the positive role that GMB and employers that have signed agreements have played in improving working standards must be recognised.

8.20 We believe that our response to the growth in platform working should be twofold:

- Through industrial campaigns we must strive to win recognition, and help workers build and organise their union, which in turn will make work better for platform workers.
- Through our policy and political campaigning we must apply pressure to secure day one worker rights with robust enforcement for all platform workers, so that standards are driven up across the sector.

9. The future of work: public policy

9.1 Whichever parties are in power, cannot rely on the Government to address the challenges of a changing workplace and make work better. We must always look first to our industrial response. This report has highlighted a number of problems that also require public policy changes, which are outlined in this section.

9.2 An immediate problem is an attempt to water down the Data Protection Act. Section 22 of the DPA currently provides workers with a right challenge ‘solely automated individual decision-making, including profiling, with legal or similarly significant effects.’ This provision could be improved (currently even minimal human intervention can remove the requirement). However, instead of strengthening these protections, the Government has suggested that it may remove them completely.⁴⁷

- 9.3 GMB opposes attempts to remove current data access rights. We call instead for a stronger legal framework. Building on the recommendations of the Institute for the Future of Work, GMB supports calls for an Algorithmic Accountability Act. This legislation would require employers to consult impact assessments to be carried out and made available to workers when new digital processes are introduced.⁴⁸ We call for the law to be further strengthened so that all workers are entitled to a non-technical explanation of what data is collected from them and how it is used.
- 9.4 Despite the perceived importance of technology for raising productivity, the UK ranks poorly by international standards for investment in research, as measured by the number of patents registered.⁴⁹ The UK spends just 1.8 per cent of its Gross Domestic Product on research and development, which is significantly below the OECD average of 2.5 per cent.⁵⁰ This makes it more less likely that employers will develop systems suitable for UK employment at home. We call for a significant increase in research and development funding across the public and private sectors, tied to good employment standards.
- 9.5 Many of our members' employment is now platform-based. GMB believes that any new trade union right of access to workplaces must be accompanied by a 'digital right of access' for platform employment. Members across different sectors report a growing expectation by employers that they must be contactable by phone and email at all times, including during unsociable hours, and outside of agreed shift patterns. We also support a statutory right to disconnect, and the way that this right would operate for different working patterns should be explored in more detail.
- 9.6 The UK has some of the lowest measured productivity levels in Europe, alongside the longest average working hours.⁵¹ As investment in technology increases, the productivity benefits should be used to reduce the strains of work. In line with existing GMB policy (Congress 2019, Motion 203 Campaign for a Shorter Working Week), we support a shorter working week with no loss of pay, without expressing our demand as a four-day week (which does not apply to

our members who do not work to a ‘traditional’ nine to five, five day a week pattern).

- 9.7 The pandemic and the Government’s ‘digital by default’ approach to essential public services have exposed a digital divide. Without state action, those who do not have suitable devices, or a quiet space at home, or IT confidence will be left further behind and (in some cases) socially vulnerable. As described above, we support a duty on service providers to alternatives to ‘digital-first’ or ‘digital by default’ approaches.
- 9.8 Access to digital skills training will be essential as workers and their representatives encounter ever more complex systems. It is not enough to rely on national curriculums to cover this ground. Introductory and refresher digital skills training should be made available to all adults as part of a wider reform of Further Education and the failing Apprenticeship Levy system, with a focus on improving the accessibility of public services.
- 9.9 Many of our members’ employment is now platform-based. GMB believes that any new trade union right of access to workplaces must be accompanied by a ‘digital right of access’ for platform employment.

10. The future of work: An industrial response

- 10.1 GMB is already organising around new technology. We have developed and signed agreements that include:
- A national agreement with Evri (Hermes⁵²) based on a self-employment plus status that in 2022 led to agreement over pension auto-enrolment and parental leave rights.⁵³
 - An historic agreement with Uber which guarantees drivers minimum pay rates, holiday pay, and a pension plan.⁵⁴

- Through our membership of the Welsh Government’s Workforce Partnership Council, GMB has helped to develop the Managing the Transition to a Digital Workplace agreement across public services.⁵⁵
 - An agreement with the Environment Agency over suspension of telematic data collection when a vehicle is in private use.⁵⁶
 - At Northumbrian Water, an agreement was reached that gave workers’ access to data generated during driving.⁵⁷
- 10.2 In order to support industrial activity, GMB will undertake sector and role specific research. The union will also produce guidance on how GMB members can use the existing law to push for Data Protection Impact Assessments (DPIAs), Equality Impact Assessments, and information sharing rights when new technology is being introduced.
- 10.3 We support – both through our public policy and industrial work – the creation of joint information sharing bodies which should be consulted when new technology is introduced (or familiar technology that could have an effect on deployment), building on the recommendations of the APPG on the Future of Work and the Institute for the Future of Work.

11. Work and an aging population

- 11.1 The UK is expected to undergo a dramatic demographic shift in the years ahead. These trends pose serious questions for workforce planning across the UK, and also for employment in the social care and schools sectors.
- 11.2 The number of people in the UK aged 80 or more is expected to increase by 1.1 million by 2030 compared to 2020 – a rise of 34 per cent. In the very long-term, the number of people aged over eighty is projected to double by 2050. This rise in care needs will place serious, and potentially unsustainable pressure on an underfunded and understaffed social care system.

- 11.3 The care sector was in crisis before the pandemic hit, and pressures have only multiplied since then. The sector carried more than 100,000 vacancies in England alone in 2021. A third of all direct care workers are employed on a zero hours contract, rising to more than half in London. The median hourly rate was £9.01 – just a few pence above the minimum wage – in 2020/21.⁵⁸ A 2021 GMB survey found that three quarters of care workers said that their mental health had worsened during the pandemic, which was causing additional recruitment and retention strains.⁵⁹
- 11.4 Employers say that an extra 330,000 workers will be needed by 2030 to meet the anticipated increase in demand for care.⁶⁰ Against the backdrop of a historically extremely tight labour market, this ambition will only be achieved if there is fundamental reform of the care sector. The best way of making work better in care will be through campaigning for career progression, decent terms and conditions, and a real living wage of £15 an hour.
- 11.5 Alongside the forecast growth in older people, the number of younger children is expected to drop significantly. Across the UK, the number of children aged between 5 and 9 is projected to fall by 673,000 by 2030 – or a decline of 16 per cent.⁶¹ The decline is already being felt in inner-city areas, and some school leaders and local authorities have warned that jobs could be lost.⁶²
- 11.6 This trend could have a potentially serious impact on school support staff employment, especially as there are more classroom-based roles in Primary Schools. GMB is clear that support staff, the hidden professionals of the education system, play an invaluable role and that these jobs need to be defended. Councils also face a huge liability if sites are sold and then pupil numbers increase again. Overall trade union density among support staff is slightly below half⁶³ and understanding which areas are most at risk should be an industrial priority for GMB over the next year.
- 11.7 Some areas of the country face a double workforce pressure of increased care demand and reduced Primary-aged pupil numbers. As a priority over the next year, GMB National Office should work

closely with reps and the Regions to better understand the impact of these changes for our members.

12. Trade in an uncertain world

- 12.1 The brutal invasion of Ukraine by the Russian state has changed the industrial outlook in a number of our sectors since the CEC committed to bringing this report to Congress 2022, and the likely course of the world economy.
- 12.2 In at least the short-term, the spike in energy prices is placing our members and much of industry under real financial pressure. The cost of energy rose by more than a fifth in March compared to a year ago. While Russia accounts for just 0.02 per cent of UK exports overall,⁶⁴ GMB is working to understand the impact of sanctions and the otherwise sharp reduction of trade in particular sectors. Since February, GMB has worked in active solidarity with Ukrainian trade unions and put pressure on UK bodies to sever their links with companies, such as Gazprom, that fuel Putin's war machine.⁶⁵
- 12.3 But even before the invasion of Ukraine, the globalised world economy was splitting into two camps. Successive US governments have applied hard pressure on nations and companies to disentangle their supply chains from China, with implications for GMB organised sectors such as nuclear construction and steel.⁶⁶ The globally extended, 'just in time' supply chains that have dominated the world economy are now seen as a liability. Political instability in Europe will likely accelerate these trends.
- 12.4 Events are moving at pace, but at this early stage some conclusions can be drawn. As a defence workers' union, GMB has long argued for an increase in spending in shipbuilding and other sectors: this call must be redoubled at a time when armies are crossing borders and warships are reigning destruction on civilian areas.
- 12.5 A retreat from globalisation should represent a chance to rebuild the essential industries and supply chains that have been undercut by unfair competition and the dumping of artificially subsidised goods,

which are a major cause behind the loss of 120,000 UK manufacturing jobs over the last decade.⁶⁷

- 12.6 The 2021 CEC Special Report on Spending and Procurement set out a programme of practical policies for reshoring jobs. This call has been adopted more widely, including in the Labour Party's 'Buy, Make, Sell' agenda. But the Government continues to look to imports first to resolve shortages: Russia and Belarus's steel import quotas are currently being redistributed to other nations.
- 12.7 GMB instead calls for an industrial strategy to rebuild essential industries, and for trade deals to have workers' voices and interests at their heart. This will remain a priority area over the coming years and it may be a topic for future reports to Congress.

13. Conclusion and summary

- 13.1 The world of work is changing. Technological and economic change brings both opportunities and threats that will affect almost all our members in the years ahead.

This report analyses these trends to inform GMB's industrial and policy response. As a result, the union commits to supporting the following positions:

- GMB should continue to use technology to build members' power and investigate growing sectors of the economy.
- Workers should have a statutory right to consultation when employers wish to transfer tasks from workers to automatic processes.
- Business taxation should be reformed to create a level playing field between online and in-store retail.
- Good quality training should always be available, within normal working hours, when new technology is introduced. The Government should provide lifelong access to training, including through remote

learning options in consultation with education workers.

- Employers should carry out an Equality Impact Assessment and consult with workers before implementing large-scale automation or unfamiliar technology.
- Employers should also prepare Data Protection Impact Assessments before implementing new algorithms that affect workers.
- GMB should produce guidance on rights under the existing law and regulations, and on monitoring at work (reflecting the different experiences of home and non-home workers).
- All workers should have a right to an accessible explanation of how their data is used, and the basis for any decisions or recommendations that affect their employment that has been made by a machine.
- GMB opposes attempts to abolish workers' rights under the Data Protection Act, and instead calls for legislation to be strengthened and the regulator to be fully funded.
- GMB should campaign to raise awareness of the exclusionary effects of 'digital-only' approaches, and for a right to speak to or meet a person by default.
- We should prioritise the securing collective agreements in the platform economy and other emerging sectors, while calling for an independent body to investigate and make rulings on worker status.
- We support a statutory 'right to disconnect' for workers, with the parameters to be set on a sectoral basis.
- Further research should be carried out on sectors and occupations that may be adversely affected by technological change such as retail, and the effects of an aging population on schools and social care.

- The union should carry out further work on the impact on our sectors of the anticipated retreat from globalisation in its current form. The Government should put in place an industrial strategy to rebuild essential industries, instead of relying on alternative sources of imports when those products could be made in the UK.

Appendix – GMB members’ survey results

GMB carried out a survey of a random sample of working members across all sectors in April 2022. The survey received 1,620 responses (on a response rate of 3.5 per cent). Further work is being done to analyse the responses to the survey in more detail.

What is your experience of working from home during the pandemic?

None – I have attended work as normal	76.3%
I worked from home but now I have returned to my normal place of work	12.9%
I mostly work from home	10.9%

Has your employer introduced new technology that affects your job during the pandemic?

Yes	34.2%
No	53.4%
Not sure	12%

Does your employer consult you, or GMB, before new technology is introduced?

Yes	14.7%
No	43%
Sometimes	14.1%
Don't know	28.3%

What of the following parts of your job are decided by or communicated through a computer programme (or an app)? Please select as many as apply

Recording your performance	33.6%
Task allocation	30.7%
Reviewing your performance	30.2%
Calculating your pay	30.1%
Don't know	22%
None of the above	21.7%

Shift allocation	19.2%
Disciplinary or capability	12.7%

Which of the following technologies are you expected to use or comply with in your job? Please select as many as apply

Driving monitoring and data collection	35%
CCTV	32.2%
Barcode scanning	28.9%
Performance dashboards	23.9%
Screen monitoring software (for computer based jobs)	21%
Recording of calls	18.1%
Assisted lifting devices	14.9%
Automatic tills	6.7%
Wearable tracking devices (such as fitbits)	5.7%
Artificial intelligence decision-making ('algorithms')	3.8%
Speech-to-text software	3.6%
Facial recognition technology	3.4%
Robots	2.9%

Note: for this group of questions, members were asked to respond to a series of statements on a scale of 1 to 10 (where 1 represented 'strongly disagree', 5 represented 'neither agree nor disagree,' and 10 represented 'strongly agree')

My job has changed during the last five years due to technology

Mean average score (out of ten)	5.5
Percentage agreeing (six or higher)	44.7%

Thinking about new technology, I am worried that my job will not be needed in five years' time

Mean average score (out of ten)	3.1
Percentage agreeing (six or higher)	18.3%

New technology has made my job better compared to five years ago

Mean average score (out of ten)	3.9
Percentage agreeing (six or higher)	22.9%

I find it difficult to get a simple explanation of how decisions are made about my job and performance

Mean average score (out of ten)	5
Percentage agreeing (six or higher)	36.9%

Automatic processes often make errors about my pay, shift allocation, or performance

Mean average score (out of ten)	3.7
Percentage agreeing (six or higher)	23.7%

I understand how my employer uses the information that it collects about me

Mean average score (out of ten)	4.1
Percentage agreeing (six or higher)	27.6%

Surveillance by my employer has a negative impact on my mental health or sense of wellbeing at work

Mean average score (out of ten)	4.4
Percentage agreeing (six or higher)	32.2%

My employer makes high-quality training available to me when new technology is introduced

Mean average score (out of ten)	3.7
Percentage agreeing (six or higher)	22.6%

I would like to undertake training in new skills

Mean average score (out of ten)	6
Percentage agreeing (six or higher)	52.8%

References

- ¹ J.M. Keynes, 'Economic Possibilities for our Grandchildren (1930)', in Essays in Persuasion, (New York: 1932, 2012 reprint), page 369.
- ² Bank of England, Agents' summary of business conditions – 2022 Q1, 17 March 2022
<https://www.bankofengland.co.uk/agents-summary/2022/2022-q1>
- ³ ONS, The rise of the UK warehouse and the “golden logistics triangle,” 11 April 2022
<https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/articles/theriseoftheukwarehouseandthegoldenlogisticstriangle/2022-04-11>
- ⁴ CIPD, People analytics: driving business performance with people data, June 2018, page 33
https://www.cipd.co.uk/Images/people-analytics-report_tcm18-43755.pdf
- ⁵ Centre for Data Ethics and Innovation, Review into bias in algorithmic decision-making, November 2020, page 40
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957259/Review_into_bias_in_algorithmic_decision-making.pdf
- ⁶ <https://www.workday.com/en-gb/pages/feature-stories/ai-machine-learning-hr.html>.
- ⁷ Public Technology, Next government HR boss will be asked to 'leverage AI and digitalisation', 14 March 2022
<https://www.publictechnology.net/articles/news/next-government-hr-boss-will-be-asked-%E2%80%98leverage-ai-and-digitalisation%E2%80%99>
- ⁸ New Scientist, A UK police force is dropping tricky cases on advice of an algorithm, 08 January 2019
<https://www.newscientist.com/article/2189986-a-uk-police-force-is-dropping-tricky-cases-on-advice-of-an-algorithm/>
- ⁹ Oxford Centre for Social Investigation, 'New CSI Research reveals high levels of job discrimination faced by ethnic minorities in Britain', 2019
<http://csi.nuff.ox.ac.uk/?p=1299>
- ¹⁰ New study finds AI-enabled anti-Black bias in recruiting, 18 June 2018
<https://www.thomsonreuters.com/en-us/posts/legal/ai-enabled-anti-black-bias/>
- ¹¹ Reuters, Amazon scraps secret AI recruiting tool that showed bias against women, 11 October 2018
<https://www.reuters.com/article/us-amazon-com-jobs-automation-insight-idUSKCN1MK08G>
- ¹² Centre for Data Ethics and Innovation, Review into bias in algorithmic decision-making, November 2020, page 46

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957259/Review_into_bias_in_algorithmic_decision-making.pdf

¹³ IPSOS Mori, Understanding the UK AI labour market: 2020, May 2021, page 24

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/984671/DCMS_and_Ipsos_MORI_Understanding_the_AI_Labour_Market_2020_Full_Report.pdf

¹⁴ Reuters, Amazon scraps secret AI recruiting tool that showed bias against women, 11

October 2018 <https://www.reuters.com/article/us-amazon-com-jobs-automation-insight-idUSKCN1MK08G>

¹⁵ Wired, The Pandemic Is Propelling a New Wave of Automation, 12 June 2020

<https://www.wired.com/story/pandemic-propelling-new-wave-automation/>

¹⁶ HSE, Work-related fatal injuries in Great Britain

<https://www.hse.gov.uk/statistics/fatals.htm>

¹⁷ GMB, After the jobs go: the effects of mass redundancies, 05 November 2020

<https://www.gmb.org.uk/long-read/after-jobs-go-effects-mass-redundancies>

¹⁸ Chinchih Chen and Carl Benedikt Frey, Automation or Globalization? The Impacts of Robots and Chinese Imports on Jobs in the United Kingdom, August 2021

<https://www.oxfordmartin.ox.ac.uk/downloads/Automation-or-Globalization.pdf>

¹⁹ The Independent, Asda looking at up to 2,500 job cuts, more automation and reducing

hours, sources say, 18 August 2018 <https://inews.co.uk/inews-lifestyle/work/asda-closures-job-losses-214381>

²⁰ GMB, Almost 135,000 retail jobs lost during pandemic,

<https://www.gmb.org.uk/news/almost-135000-retail-jobs-lost-during-pandemic>

²¹ ONS, The probability of automation in England: 2011 and 2017, 25 March

2019 <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentanddem/employee/types/articles/theprobabilityofautomationinengland/2011and2017>

²² Note: the ONS study excluded the devolved nations due to small sample sizes.

²³ GGTN, Yangshan terminal: Homegrown smart 'brain' contributes to a 'worker-free' port, 17

September 2021 <https://news.cgtn.com/news/2021-09-17/Homegrown-smart-brain-contributes-to-a-worker-free-port-in-E-China-13CFVLzJB7i/index.html>

²⁴ ONS, The probability of automation in England: 2011 and 2017, 25 March 2017

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentanddem>

[ployeetypes/articles/the-probability-of-automation-in-england/2011-and-2017/](https://www.ployeetypes.com/articles/the-probability-of-automation-in-england/2011-and-2017/): and OECD, The Risk of Automation for Jobs in OECD Countries, 14 May 2016 <https://www.oecd-ilibrary.org/docserver/5jlz9h56dvq7-en.pdf?expires=1647568054&id=id&accname=guest&checksum=42111FEA242ED610A8311EBOF7159F3E>

²⁵ The Byte, Amazon says it could have fully automated warehouses in 10 years, 02 May 2019 <https://futurism.com/the-byte/amazon-automated-warehouses-10-years>

²⁶ CNBC, Elon Musk admits humans are sometimes superior to robots, in a tweet about Tesla delays, 17 April 2018 <https://www.cnbc.com/2018/04/13/elon-musk-admits-humans-are-sometimes-superior-to-robots.html>

²⁷ Bloomberg, Waymo Is 99% of the Way to Self-Driving Cars. The Last 1% Is the Hardest, 17 August 2017 <https://www.bloomberg.com/news/articles/2017-08-17/waymo-s-self-driving-cars-are-99-of-the-way-there-the-last-1-is-the-hardest>

²⁸ Daniel Susskind, 'Work in the Digital Economy,' in Skidelsky and Craig, Work in the Future: The Automation Revolution (Palgrave Macmillan: 2020), page 131

²⁹ Ball, K., 2010. Workplace surveillance: an overview. Labour History, 51(1), pp. 87

³⁰ TUC, Intrusive worker surveillance tech risks "spiralling out of control" without stronger regulation, TUC warns, 28 February 2022 <https://www.tuc.org.uk/news/intrusive-worker-surveillance-tech-risks-spiralling-out-control-without-stronger-regulation>

³¹ People Management, One in five employers monitoring remote workers or planning to do so, poll finds, 26 November 2020 <https://www.peoplemanagement.co.uk/news/articles/one-five-employers-monitoring-remote-workers-planning-do-so-poll-finds>

³² Jalopnik, When Henry Ford's Benevolent Secret Police Ruled His Workers, 23 March 2014 <https://jalopnik.com/when-henry-fords-benevolent-secret-police-ruled-his-wo-1549625731>

³³ See Dave Smith, Blacklisted: The Secret War Between Big Business and Union Activists, 2015; and Mike Hughes, Spies at Work, 2012

³⁴ DW, Amazon's 'inactivity protocols' under fire, 13 March 2015 <https://www.dw.com/en/amazons-inactivity-protocols-under-fire/a-18315388>

³⁵ The Verge, How Amazon automatically tracks and fires warehouse workers for 'productivity', 25 April 2019 <https://www.theverge.com/2019/4/25/18516004/amazon-warehouse-fulfillment-centers-productivity-firing->

[terminations#:~:text=In%20a%20signed%20letter%20last%20year%2C%20an%20attorney.roughly%20300%20full-time%20associates%20were%20terminated%20for%20inefficiency](#)

³⁶ GMB, More than 1,000 serious injuries reported at Amazon sites, 04 January 2022
<https://www.gmb.org.uk/news/more-1000-serious-injuries-reported-amazon-sites>

³⁷ Vice, Secret Amazon Reports Expose the Company's Surveillance of Labor and Environmental Groups, 20 November 2020
<https://www.vice.com/en/article/5dp3yn/amazon-leaked-reports-expose-spying-warehouse-workers-labor-union-environmental-groups-social-movements>

³⁸ TUC, Intrusive worker surveillance tech risks "spiralling out of control" without stronger regulation, TUC warns, 28 February 2022 <https://www.tuc.org.uk/news/intrusive-worker-surveillance-tech-risks-spiralling-out-control-without-stronger-regulation>

³⁹ Deborah Jeske, Remote workers' experiences with electronic monitoring during Covid-19: implications and recommendations, International Journal of Workplace Health Management Vol. 15 No. 3, 2022 pp. 393-409
<https://www.emerald.com/insight/content/doi/10.1108/IJWHM-02-2021-0042/full/pdf?title=remote-workers-experiences-with-electronic-monitoring-during-covid-19-implications-and-recommendations>

⁴⁰ See LRD Booklets, Monitoring and surveillance at work - a practical guide for trade union reps, March 2020 - Chapter 9

⁴¹ Citizens' Advice Scotland, CAS warns the UN of 'digital divide' in Universal Credit [undated]
<https://www.cas.org.uk/news/cas-warns-un-digital-divide-universal-credit>

⁴² <https://www.gmb.org.uk/thinking-differently-work>

⁴³ TUC, Seven ways platform workers are fighting back, 05 November 2021
<https://www.tuc.org.uk/sites/default/files/2021-11/Platform%20essays%20with%20polling%20data.pdf>

⁴⁵ See GMB's submission to the Taylor Review of Modern Working Practices, published 04 May 2018 <https://www.gov.uk/government/publications/good-work-the-taylor-review-of-modern-working-practices>

⁴⁶ 44 per cent of workers surveyed as part of GMB's 2017 report on precarious work reported that they would prefer 'more hours overall, with greater flexibility over which hours you work, but your hours are not fixed and your contract is not permanent.'

⁴⁷ DCMS, Data: a new direction, 10 September 2021
<https://www.gov.uk/government/consultations/data-a-new-direction>

⁴⁸ Institute for the Future of Work, Building a Systematic Framework of Accountability for Algorithmic Decision Making, 03 December 2021 [https://uploads-ssl.webflow.com/5f57d40eb1c2ef22d8a8ca7e/61b4a4bdbe4ba11f0e7bb730_IFOW-AIA%20Policy%20Paper%20\(v7-10.12.21\).pdf](https://uploads-ssl.webflow.com/5f57d40eb1c2ef22d8a8ca7e/61b4a4bdbe4ba11f0e7bb730_IFOW-AIA%20Policy%20Paper%20(v7-10.12.21).pdf)

⁴⁹ World Intellectual Property Organization, World Intellectual Property Indicators 2020 <https://www.wipo.int/publications/en/details.jsp?id=4526>

⁵⁰ OECD, Gross domestic spending on R&D <https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm>

⁵¹ Eurostat, How many hours do Europeans work per week?, 25 January 2018 <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20180125-1>

⁵² Guardian, Hermes to offer gig economy drivers better rights under union deal, 04 February 2019 <https://www.theguardian.com/business/2019/feb/04/hermes-to-offer-gig-economy-drivers-better-rights-under-union-deal>

⁵³ GMB, GMB and Evri in 'breakthrough' pension deal for couriers, 11 March 2022 <https://www.gmb.org.uk/news/gmb-and-evri-breakthrough-pension-deal-couriers>

⁵⁴ GMB, Uber and GMB strike historic union deal for 70,000 UK drivers, 26 May 2011 <https://www.gmb.org.uk/news/uber-and-gmb-strike-historic-union-deal-70000-uk-drivers>

⁵⁵ Wales/Cymru TUC, Managing the Transition to a Digital Workplace Annex to the Workforce Partnership Council's Partnership and Managing Change Agreement, December 2021 <https://www.tuc.org.uk/sites/default/files/2021-12/Principles%20digitalisation%20TUC%20ENG.pdf>

⁵⁶ Fleet News, Winning hearts and minds in public sector fleets, 03 July 2015 <https://www.fleetnews.co.uk/fleet-management/case-studies/home/winning-hearts-and-minds-in-public-sector-fleets>

⁵⁷ Fleet News, Northumbrian Water: telematics has 'forced a change in attitude to safety,' 07 <https://www.fleetnews.co.uk/fleet-management/case-studies/home/northumbrian-water-group-under-spotlight>

⁵⁸ Skills for Care, The state of the adult social care sector and workforce in England, October 2021 <https://www.skillsforcare.org.uk/adult-social-care-workforce-data/Workforce-intelligence/publications/national-information/The-state-of-the-adult-social-care-sector-and-workforce-in-England.aspx>

⁵⁹ GMB, Three quarters of care workers' mental health has worsened during pandemic, 23 April 2021 <https://www.gmb.org.uk/news/three-quarters-care-workers-mental-health-has->

[worsened-during-pandemic](#)

⁶⁰ Skills for Care, The state of the adult social care sector and workforce in England, October 2021 <https://www.skillsforcare.org.uk/adult-social-care-workforce-data/Workforce-intelligence/publications/national-information/The-state-of-the-adult-social-care-sector-and-workforce-in-England.aspx>

⁶¹ ONS, Principal projection - UK population in age groups, 22 January 2022 <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/tablea21principalprojectionukpopulationinagegroups>

⁶² Schools Week, Councils cut primary school places as baby boom flattens, 11 February 2022 <https://schoolsweek.co.uk/councils-cut-primary-school-places-as-baby-boom-flattens/>

⁶³ GMB analysis of unpublished ONS Labour Force Survey data.

⁶⁴ UN COMTRADE database.

⁶⁵ GMB, Kremlin controlled Gazprom scooped at least £25 million from UK public sector, 03 March 2022 <https://www.gmb.org.uk/news/kremlin-controlled-gazprom-scooped-least-%C2%A325-million-uk-public-sector>

⁶⁶ As referenced in the Guardian, Britain and US agree on steel tariffs as hopes of broader trade deal recede, 23 March 2022 <https://www.theguardian.com/politics/2022/mar/22/britain-closes-in-on-deal-with-us-to-end-tariffs-on-steel-exports>

⁶⁷ ONS, Annual Population Survey data.