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My evidence is based on research carried out independently and as part of the Data Justice Lab across a number of different projects. Although most of my research is not specifically focused on Wales, the evidence I am providing is relevant for Wales in light of a) the acceleration of AI innovation taking place in Wales; and b) the nature of the largest sectors in Wales that have experienced some of the fastest rises in uses of AI.

My evidence is focused primarily on the Committee's orientation towards:

- How is AI likely to affect jobs and workers in Wales, and what actions might the Welsh and UK governments need to take in response?

Based on my research I want to highlight 4 areas of interest regarding this question: 1) Quality of Work; 2) (In)Equalities; 3) Accountability; and 4) Responses

1) Quality of Work

Much focus on AI and the future of work has been oriented towards job losses with less focus on how AI might impact quality of work. However, research on algorithmic management has shown that the growing reliance on data-driven technologies has implications for increased surveillance, job intensification and working conditions. Although AI does not feature in all aspects of algorithmic management, AI is likely to further uses of data-driven direction and performance assessment at work. In our own research with postal workers working for Royal Mail and call centre workers working for Teleperformance and BT in Wales and South West England, we found new automated systems to be routinely introduced in the management of workers. These tend to be oriented towards enhanced forms of monitoring by tracking worker activity and further assessments of productivity.

Our research showcases the extent to which the introduction of new automated systems is often perceived by workers to worsen working conditions. Call centre workers, for example, spoke of excessive forms of surveillance and an increased pressure to perform to faster call handling times with systems that often are not able to account for context and nuance, such as different client behaviours. They also spoke of new technologies being used to reward and discipline workers by attaching bonuses to data-driven performance assessments, including behavioural data such as tone of voice, which they often found arbitrary and unfair. In research with postal workers, we found that the growing reliance on automation, including new digital tracking devices, for managing and evaluating postal work was experienced by workers as undermining the dignity and social value of postal work. In particular, in a trend that we refer to as the 'Amazonification' of Royal Mail, workers considered the growing use of automation, including AI, to be central to the transformation of postal work from being a public service to mimicking the work of private couriers.

Research from others has highlighted how the impact of AI on the quality of work is particularly pressing in other sectors as well that are of key significance for the Welsh economy, such as retail and warehouses, and hospitality and service industries, including cleaning.

2) (In)Equalities

A significant area relating to AI and work is the issue of (in)equality. The use of AI in processes such as recruitment and hiring, for example, is overwhelmingly premised on not just increased efficiency, but also more objective decision-making. In research we have carried out with providers of automated hiring systems (some, but not all relying on AI), we found that the up-take of these systems is in part based on the claim that tools can address organisational and human bias in decision-making by relying on other sources of information than conventional sources (e.g. resumés) that have been shown to (unfairly) disadvantage some groups. Instead, AI in hiring relies on a range of data sources, including both Open Source Intelligence, social media, games and assessment questionnaires, to profile and predict candidates based on cognitive skills and personality traits for optimal fit. However, our research has also shown that (new) forms of discrimination and inequalities emerge with the use of AI in hiring. For example, so-called 'proxy' data can be used, either intentionally or unintentionally, to advantage or disadvantage groups with protected characteristics, such as age or gender. Furthermore, assessments may not account for diverse lived experiences, such as using completion time as a variable in the profiling of candidates that will tend to discriminate against certain forms of disability. Moreover, we found that optimising for fit based on behavioural data tends to consolidate stereotyped versions of the 'ideal candidate' that risks reinforcing historical patterns of discrimination and disadvantages those with unconventional career trajectories.

Within management, the use of AI has also been shown to have the potential to entrench or create inequalities. A prominent example is the use of facial recognition technologies by Uber to track drivers checking in and out of the platform that is unable to properly identify workers with darker skin tones. In our own research, including with both call centre workers and postal workers, we found that the advancement of data-driven technology within workplaces has been used to 'manage out' older workers, in particular, who struggle to adapt as easily to new systems or to meet targets based on younger bodies. Research has also shown that AI tools introduced in the workplace are particularly prone to exclude workers with disabilities that struggle to access platforms in the same way as able-bodied workers.

With the advent of so-called Generative AI, some of these inequalities are set to become even more pressing, and may have particularly harmful impact on workers with

neurodiversity and those speaking minority languages as it becomes more widespread within workplaces.

3) Accountability

Finally, our research has shown that issues of accountability are significant in the advancement of AI in workplaces. In hiring, for example, we have found that there is a lack of transparency regarding how AI systems work and how they might be challenged. Managers at workplaces that make use of AI systems are often not aware of the way models work and what variables are included in the design. This means that it may therefore be more difficult to identify and address possible forms of discrimination. The question of accountability in AI systems used in workplaces is particularly pertinent in light of the scale of impact they may have. Rather than impacting one worker because of a managerial decision, AI systems can potentially exclude entire groups of people, often at very early stages of the recruitment process (e.g. at the point of targeting candidates or when filtering CVs), that are likely to impact significantly more people. Moreover, we have found that hiring tools tend to be imported from other national and legal contexts, most notably the United States, that do not share the same legal definitions for issues like discrimination for example. This means that they are designed to accommodate regulation that is alien in a Welsh/UK context.

A key effort in addressing issues of accountability with the increased reliance on AI in employment is to focus on auditing mechanisms. In planned research, I have found that auditing processes are overwhelmingly carried out by private entities (e.g. consultancies) without proper scrutiny over what constitutes appropriate auditing methods. Moreover, auditing tools tend to rely on computational definitions of fairness (debiasing) which have been shown to be widely variable and contentious, in particular with regards to their limitations in accounting for diverse lived experiences, including people with disabilities. There is, therefore, a significant gap in how providers of AI technologies within workplaces can be held accountable.

Another issue of accountability refers to research we have done on the growing use of AI within the public sector. This research is significant in light of the recently announced partnership between the Welsh Government and OpenAI to leverage AI ‘to solve complex challenges and improve public services.’ In research we have done with public sector workers across the UK, we have found that the introduction of data-driven technologies often obscures relations between the state and citizens, and has implications for democracy, trust and the possibility for redress. Moreover, we have found there to be significant concerns amongst civil society organisations working with impacted communities about the potential for these technologies to further stigmatisation, stereotyping and discrimination within the public sector, particularly in light of the lack of transparency regarding when and where algorithmic systems, including AI, are in use.

4) Responses

Throughout my work, I have, together with colleagues, sought to highlight a number of potential responses to concerns about AI evident from our research. In research carried out with trade unions in the UK, for example, we have found that there has been a general lack of involvement by worker representatives in debates on the governance of AI. This also translates to the workplace where unions have pointed out that workers in many organisations have had little say over the introduction of new technological systems that have an impact on their work. A significant area for further action is therefore to identify avenues for consultation with workers and worker representatives about the implementation of AI technology in workplaces, before the point of implementation. This also includes ensuring better conditions for workplace democracy so that formal avenues are in place for workers to be consulted and to challenge the implementation of AI tools, and throughout the AI lifecycle (e.g. New Technology Agreements as part of collective bargaining).

In research we carried out on the potential of the Wellbeing of Future Generations (Wales) Act to address issues of data justice, we found that although the Act provides a robust framework for engaging with well-being objectives and practical steps to achieve those objectives, a significant limitation with regards to technology is the advancement of a digital policy largely in isolation from the Wellbeing of Future Generations (Wales) Act. We found that this left a governance gap of digital transformations that could be addressed with a closer synergy between the two. For example, we found there to be scope for developing procurement processes of digital services in line with the Act that places greater onus on AI providers to uphold standards of accountability, inclusion and diversity. This can include exploring enforceable contract conditions for the procurement of digital And AI technologies, which, if legally binding, would give professionals more leverage to make demands, helping to embed the Act's values into contracts and facilitate fairer governance of technologies. In particular, the Procurement Centre for Excellence could be responsible for this.

A further point of action refers to the auditing of AI tools in employment. As a rapidly growing industry, AI auditing needs more oversight and more rigorous standards established for methods of auditing. This also includes investment into alternative methods for auditing that go beyond the narrow confines of computational definitions of fairness and equality to ensure diverse lived experiences are accounted for. Auditing needs to be more closely aligned with regulatory requirements across data protection, employment and equality law.

Generally, greater demand can be made of organisations to provide transparency regarding the implementation of AI tools within workplaces. Currently, we lack

systematic reviews of where and how AI is used, making it difficult to gather a clear picture about its impact on work and workers.