

# **Factsheet: Gendered Impacts of Artificial Intelligence (AI)**

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### **Background**

New technologies and generative AI has long been high on the agenda for business leaders, with 55% of CEO's ranking this within the top three challenges faced by their organisation in 2024. From better productivity, data analysis and decision making, to increased employee and customer satisfaction and even safer workplaces, this technology has the potential to address some of today's societal challenges.

It can also transform how we live and work, with 1 in 6 UK employers currently using at least one kind of AI technology.<sup>2</sup>

However, it's important to question whether employers have paused to think about equity and inclusion when navigating this new technological landscape. In the race to scale up (and benefit from) AI, have they considered how these new tools will reshape their industry and the people within it?

Despite its potential, generative AI and greater automation can create inequality if not thoughtfully implemented. As with any wholescale change, the groups who face the largest societal disadvantage will be the ones disproportionately impacted.

#### Al and Gender Equity

The ability to access, use, and shape AI is essential for women's participation in all sectors of society, with the digital gender gap already astounding. Women are 25% less likely than men to know how to leverage digital technology for basic uses, and lack access to, and

<sup>&</sup>lt;sup>2</sup> https://www.gov.uk/government/publications/ai-activity-in-uk-businesses/ai-activity-in-uk-businesses-executive-summary



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<sup>&</sup>lt;sup>1</sup> https://www.bitc.org.uk/report/lifting-up-the-uk-state-of-the-nation-report-2024/



participation in, Science, Technology, Engineering, and Mathematics (STEM) industries.<sup>3</sup> They also make up the majority of the world's 2.9 billion unconnected.<sup>4</sup>

#### The business case for responsible use of AI

It is the responsibility of employers, legislators and technology providers to actively design and use AI to better reflect women's needs, contexts, experiences, and ideas and help close the digital gender gap. To create a gender equal future, responsible businesses must be aware of – and have plans to address – the following issues.

#### 1) Job disruption disproportionately affecting women

It's important to recognise the impact that AI is going to have on women, particularly their jobs. The occupations that are the most vulnerable to AI advancements have a higher proportion of female employees and there is a risk of 80% of women's roles being displaced by AI  $^{5.6}$ .

Whilst this displacement risk is very real, it also provides opportunities for employers to reskill and redeploy women into more productive roles, if done so correctly realising a 'double benefit' from the AI revolution. It is therefore imperative for organisations to understand how the use of AI will impact their workforce to capitalise on the training and reskilling opportunities it brings.

#### 2) Underrepresentation of women and minority groups in AI development

<sup>&</sup>lt;sup>6</sup> <u>Will Generative AI Disproportionately Affect the Jobs of Women? - Frank Hawkins Kenan Institute of Private Enterprise (unc.edu)</u>



<sup>&</sup>lt;sup>3</sup> https://nethope.org/articles/if-ai-is-the-future-gender-equity-is-essential/

<sup>&</sup>lt;sup>4</sup> https://nethope.org/articles/if-ai-is-the-future-gender-equity-is-essential/

<sup>&</sup>lt;sup>5</sup> The gendered impacts of AI on womens' careers,

Forbes:https://www.forbes.com/sites/lindsaykohler/2024/05/17/the-gendered-impacts-of-ai-on-womens-careers/



One of the main issues with current AI development is the lack of representation of females and minoritised groups in the industry, with only 22% of the UK tech workforce being women and just 0.7% being Black women<sup>7</sup> <sup>8</sup>.

Women are not only hired less but are also quicker to leave tech organisations than men.<sup>9</sup> Increasing female representation in AI will improve diversity of thought, innovation and help to curb bias within AI systems<sup>10</sup>.

As with underrepresentation in any sector, organisations must implement and improve initiatives to attract and retain women in the tech industry and tech roles. Notable examples of this includes:

- Use of inclusive language in job adverts
- Flexible working options
- Conducting outreach to schools, universities and communities
- Providing upskilling and development opportunities

## 3) Bias in AI systems and the impacts on women and minority groups

The underrepresentation of women and minority groups in AI is one of the main drivers of bias in AI systems, with the data being sourced predominantly from white men and/or male profiles<sup>11</sup>. Bias within data sources can perpetuate and amplify existing gender stereotypes, left unaddressed will significantly disadvantage the lives of women and minority groups.

For example, a study by the Berkeley Haas Centre for Equity, Gender and Leadership found that of the 133 Al systems analysed across different industries, 44% showed gender bias and 25% exhibited both gender and racial biases.<sup>12</sup>

<sup>&</sup>lt;sup>12</sup> See UN Women (2024), 'Artificial Intelligence and Gender Equity:' <a href="https://www.unwomen.org/en/news-stories/explainer/2024/05/artificial-intelligence-and-gender-equality">https://www.unwomen.org/en/news-stories/explainer/2024/05/artificial-intelligence-and-gender-equality</a>



<sup>&</sup>lt;sup>7</sup> Fewer women in tech sector, but A-levels show rise in girls studying Stem (personneltoday.com)

<sup>&</sup>lt;sup>8</sup> Thousands of black women 'missing' from the IT industry, report warns | BCS

<sup>&</sup>lt;sup>9</sup> Women are not only hired less but are also quicker to leave tech organisations than men.

<sup>&</sup>lt;sup>10</sup> Women in Al who are working to bridge the gender equity gap | World Economic Forum (weforum.org)

<sup>&</sup>lt;sup>11</sup> Al Bias Could Put Women's Lives At Risk - A Challenge For Regulators (forbes.com)



Al algorithms are also more likely to reinforce biases against women who are ethnically diverse, LGBTQIA+, disabled, and from low-income backgrounds<sup>13</sup>. A study looking into Al technology used to detect skin cancer, where accurate detection of skin colour and its variances are important, revealed there was a 99% accuracy rate when identifying white males compared to 65% when identifying Black women<sup>14</sup>. This example evidences the potential life-threating health risks of Al adoption to Black women.

Businesses need to be aware of these risks and take an intersectional approach to ensure that existing inequalities aren't exacerbated by the adoption of AI tools, systems and practices, ensuring the systems they use (or develop) have been created by a diverse pool of coders and trained on a diverse dataset.

<sup>&</sup>lt;sup>14</sup> Al Bias Could Put Women's Lives At Risk - A Challenge For Regulators (forbes.com)



<sup>&</sup>lt;sup>13</sup> Artificial Intelligence and Its Unique Threat to Women | Washington D.C. & Maryland Area | Capitol Technology University (captechu.edu)