Gender and the future of work

By Alison Maitland

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Artificial intelligence (AI) generates excitement as well as fear. Does the rise of the robots herald an era of 'good work', combined with increased leisure, as machines take over repetitive and physically demanding tasks? Or will the automation of swathes of jobs lead to rising poverty, despair and social unrest?

Gender is often an afterthought in debate on this hot topic. Yet many parts of the labour market remain heavily gender-segregated – think of construction versus caregiving – and women still earn less on average than men. The digital transformation of work offers an opportunity to change that, but will it end up narrowing or widening the gender gap?

Gender equality is important for economic growth. So I've drawn up a list of ways I think digital technology could impact on women's employment, for better or for worse.

<u>Narrowing the gender divide</u>

1. Flexibility: Digital technology enables far greater flexibility about where, when and how work is done than in the past. This particularly benefits women, because they continue to bear the lion's share of caring responsibilities.

Countries with the highest share of women working from home also have the highest maternal employment rates, the OECD points out in a recent <u>report</u>*. US research shows that gender pay gaps tend to be lower in industries where working arrangements are more flexible.

The digitalisation of work should lead to a more equal division of family responsibilities

As an example, women make up 14% of Uber drivers in the US, compared with only 8% of traditional taxi drivers. The women working for Uber were more likely than the men to say they did it because they could only work part-time or flexibly, a study found**.

Of course, men can and increasingly do take advantage of flexibility, so the digitalisation of work should lead to a more equal division of family responsibilities, as is already happening, which also strengthens women in the workforce.

2. Employment growth: Sectors likely to see continuing demand for human workers include healthcare and eldercare where women predominate. This could lead to a rebalancing of pay inequalities, with increases where demand is greatest.

On the other hand, jobs are also likely to be automated in sectors employing large numbers of women, such as retail and food services. So on balance the risks of job losses may be similar for men and women.

However, highly educated women should see their advantage grow. Women with tertiary degrees now outnumber men across the OECD, which predicts that fewer than 5% of workers with a tertiary degree are at high risk of losing their jobs to automation.

3. Skills: As machines take over more tasks, skills that are uniquely human will become more valuable. Interpersonal skills such as empathy, emotional intelligence and teamwork are already at the heart of many jobs in which women predominate, such as teaching or social care.

This should give women a natural advantage – and encourage men to develop their 'feminine' side. If society ascribes a higher value to skills traditionally seen as 'soft', this should help narrow the gender divide.

There are three distinct levels of artificial intelligence, as outlined in a report*** by PwC: assisted intelligence, such as SatNav, which supports what humans are already doing; augmented intelligence, such as car-sharing apps, which enable humans to do new things; and autonomous intelligence, such as self-driving cars, which take over from humans.

Assisted intelligence frees more time for humans to practice higher-level skills. For example, the use of robots to lift and move residents in care

homes enables the carers working alongside them to focus on providing comfort, support and conversation.

4. Digital platforms: The growth of online job exchanges and marketplaces such as Upwork and Etsy can provide employment and entrepreneurial opportunities for women in countries where there are cultural barriers to going out to work.

Separately, a survey by Facebook, the OECD and the World Bank found many female entrepreneurs operating on Facebook. These women have similar business confidence levels as their male counterparts, in contrast to start-ups more generally.

Technology companies must focus on diversity in their design teams and ensure that machine learning does not perpetuate biases

It's not all promising news, however, as my next list shows:

Widening the gender divide

1. Job quality: If flexibility makes some jobs in the digital economy particularly attractive to women, this may well be offset by a lack of job security and benefits, and low pay, as well as unsociable hours.

2. Skills: Right now, the big demand is for skills in science, engineering and technology (STEM), and men dominate in these areas. Software design teams lack diversity. Only 19% of Google's technical workforce is female and only 18% of computer science students in the US are women, according to an article by Liza Mundy in *The Atlantic*.

3. Stereotypes: Automation could reinforce gender stereotypes. Virtual assistants, as the *Financial Times* has pointed out, are often given female personae, like Amazon's Alexa and Microsoft's Cortana, and bots in offices are being given female names, reinforcing the idea that women serve rather than lead. Machine learning involves sifting through masses of data about human decisions, with all their prejudices.

4. Access: There are 250 million fewer women than men with access to the internet. While this is changing in the younger generation, women are still technologically disadvantaged in many countries.

What can governments do to ensure that digital transformation improves gender equality, instead of making it worse?

They can focus on facilitating women's access to STEM degrees, jobs and apprenticeships; enabling women to participate in lifelong learning, notably during career breaks; and speeding women's access to digital technology and mobile phones.

Employers can contribute by increasing autonomy and choice for workers and advertising jobs with full flexibility. Technology companies must put a laser focus on ensuring diversity in their design teams and products, and on ensuring machine learning does not perpetuate biases.

As for individuals, we can be more open to change, including likely changes of career. We can hone our abilities to listen, to empathise, to be creative, to sense what's going on in the environment around us, and to control our own destinies. This way, we will have a better chance of thriving in the age of the robots.

* Going digital: the future of work for women, OECD, July 2017
** An Analysis of the Labor Market for Uber's Driver-Partners in the United States, Hall and Krueger, 2015
*** Workforce of the future: the competing forces shaping 2030, PwC, Sept 2017

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