

Technology, work and the future

Robots would repay a little love and understanding

If you don't have a job, if your job is insecure or poorly paid, or if you spot trends that may eliminate your job, it is reasonable to be worried. Unless you are rich, or have transferable skills that are in demand, it is also natural to be hostile towards the threats to your job. The two most commonly identified threats to jobs are immigration and technology. There is a weary consensus that the Brexit vote will address the immigration issue - in some indefinite timescale and with uncertain consequences. So technology, particularly in the form of robots, is now receiving intense media and political scrutiny and fear-mongering. This is lazy thinking, avoiding the bold action needed to adapt the UK to take advantage of the new technology-enabled economy emerging worldwide.

Computers are not new. They have taken an increasingly active role in our lives for some 50 years. Roughly halfway through that time, the Internet and the world-wide-web began to have general use. We have gradually become used to working in a continuously evolving intelligent, digital environment. We are largely happy to outsource some of our memory functions to Google, to allow social media to help manage our social lives, and occasionally to ask for help from Siri, Cortana or Alexa. It is no longer an act of faith to think that technology can be transformational: Look at the amazingly fast adoption of smart phones and use of very complex technologies to communicate, navigate and access retail services that have been introduced in the last decade. Similarly, look at the sophistication and speed of deployment of Amazon's logistics services. So the potential of technology is real and may offer the best way to sustain the UK economy

But apart from technophiles, many people continue to regard technology-driven change as a threat. Furthermore, successive UK governments have had problems with major projects requiring technology. And, although employment levels are high, UK productivity is poor; this does not indicate effective use of new technology. The situation is similar in the US. One difference, however, is that the US government invests massively in military and security projects. This undoubtedly benefits the US tech sector, where partly as a result, fabulous wealth has accrued. This hasn't, however, solved problems such as static real wages for many workers, and poor infrastructure. Neither has it transformed healthcare in ways that are theoretically possible.

It is understandable that people who fear being made poorer by technology changes are likely to oppose them. There is, therefore, an opportunity for a government with a confident attitude towards technology and the desire to share the wealth it generates, to achieve a lot. In the UK, this would depend on changing the Treasury's short-term thinking about investment and developing the Civil Service's ability to commission and deliver major cross-department technology projects. Some examples of the actions such a government might take are to provide priming investment in: accelerating 5G mobile communications, installing electric vehicle charging points, introducing a smart grid, increasing technology support for care workers, and reskilling

workers displaced by technology. Getting this right would be hard, and would need to be done on a scale sufficient to be effective. Hardheaded economists and accountants would question the cost. But, significantly, the alternative has not worked. It is time raise our sights, and adopt an ambitious approach to using technology.

A model for a continuously evolving, tech-supported workplace of the future, might be a mixed multicultural community of people and robots, with a division of labour. Humans would do the tasks involving empathy, judgement and human values, and robots take on tasks involving mechanical strength, high-speed calculations and more. For example, people currently stacking shelves in retail stores might usefully be re-employed in the care services. It would require suitable laws, regulations, and taxation to make it possible, as well as close cooperation between government, companies, and human workers. At least for now, we wouldn't need to worry about workers' rights for the robots, and could therefore focus on assuring economic security for the humans.

The UK could, and arguably must, in a post-Brexit world, make the leap to becoming a real leader in developing and using technology successfully to make the economy function better, and benefit the whole of society. Achieving this would involve wrenching adjustments for politicians, a wake-up call to think tanks and universities, and a profound challenge to the Civil Service. The payoff could be immense. In the process we could all come to fear robots less and love them a little more.

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