

# 10 Key Insights on the Future of Jobs

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## Introduction

The Future of Work Research Consortium is a global community of over 35 multinational organisations, led by Professor Lynda Gratton. It is widely acknowledged as one of the most innovative and advanced membership groups anticipating how work is changing and what organisations must do differently to thrive in the years ahead. Over the last ten years, we have united academic research and organisational practice to explore the trends shaping industries, organisations and careers.

Today's debate about the future of work often centres on dire warnings about how robots are going to steal people's jobs. Predictions of job losses range from the catastrophic to the subdued. The University of Oxford estimate that 35 percent of UK jobs have the potential to be automated. In contrast, PwC suggest the figure is more likely to be 30 percent, while a 2017 McKinsey report said that 5 percent of UK jobs are highly automatable. The aim of this white paper is to cut through the hype and frenzy that often surrounds this debate and present an accurate account of how the world of work is changing. Read on for our summary of the top ten insights on the future of jobs in an age of automation.

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## Not a total takeover

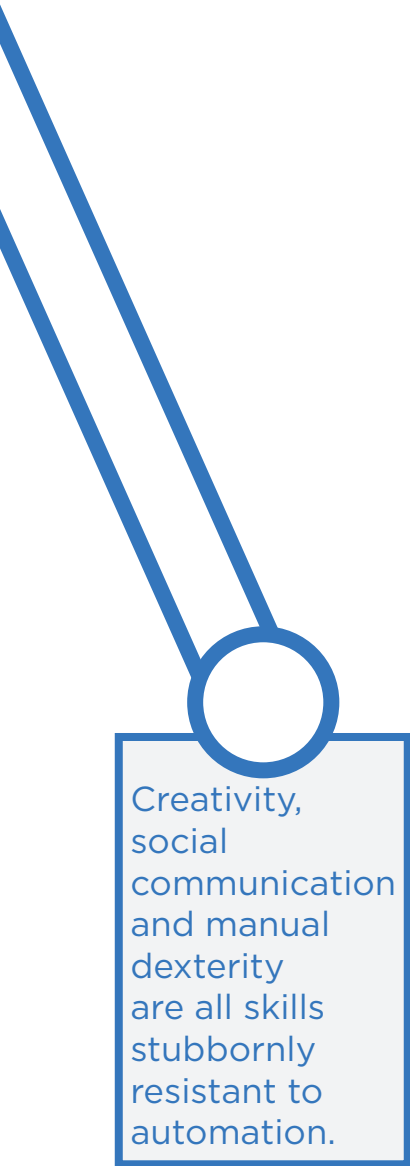
Automation tends to displace tasks rather than whole jobs. Currently, there are only few jobs (around 5 percent) where 90 to 100 percent of tasks can be automated. Around 60 percent of occupations have 30 percent of tasks that can be automated. Notably, in terms of total working hours, in the aggregate no work task is yet estimated to be predominantly performed by a machine or an algorithm.<sup>1</sup>



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## Humans retain an advantage over machines

Creativity, social communication and manual dexterity are all skills stubbornly resistant to automation. The IBM Project Debater stumbles as it gives answers; the surgical robot used by John Radcliffe Hospital still requires a human operator; and Ocado's fulfilment centre cannot function without plenty of humans to handle more delicate tasks.<sup>2</sup>



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## Evolution over eradication

The robot revolution will create 58 million new jobs in the next five years, according to the World Economic Forum's Future of Jobs Report 2018. Most mainstream economists now acknowledge the 'lump of jobs' fallacy agreeing that there's no such thing as a fixed amount of work. If technology automates away existing jobs, new jobs of a different nature eventually take their place. In the past 50 years alone, the skills used in several professions have fundamentally changed, even as the fields themselves have continued thriving.<sup>3</sup>

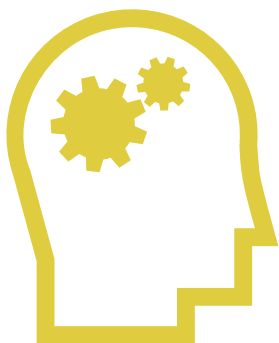


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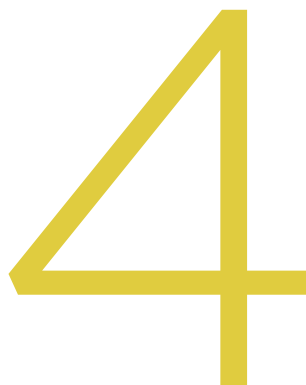
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## Raising the bar

New technologies may both amplify the cognitive abilities of workers as well as free them to work on higher value activities. Consider the lessons from banking. The number of bank tellers increased in response to the introduction of ATMs. ATMs freed tellers from low value activities such as dispensing cash so more of their time could be allocated to higher value and more productive uses. This in turn resulted in branches becoming more productive and so led to an increase in their number.




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## Not everyone wins

The less educated are far more likely to work in 'routine' jobs, which are more susceptible to automation, than workers with a degree. 44% or more of the tasks in jobs held by workers with less than a bachelor's degree are automatable.<sup>4</sup> And the geographic divide is stark: single-industry towns and areas outside cities are most vulnerable. These areas have already experienced deindustrialization with many of them unemployment hotspots.<sup>5</sup> The greatest losers in the advent of technology are likely to be low-skilled, low-paid individuals.



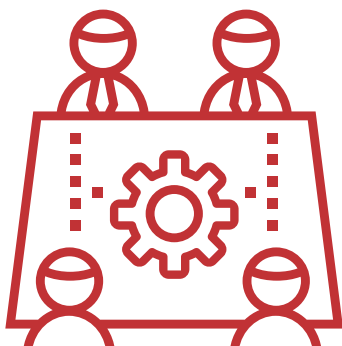
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## Shifting skills

Workers face an urgent shift fuelled by the shortening shelf life of many skills – and not just in blue-collar industries. Global average skills stability – the proportion of core skills required to perform an unchanging job – is expected to see an average shift of 42% in the 2018-2022 period.<sup>6</sup> For someone remaining employed in their current white-collar role, that means 101 days of reskilling. For those fully displaced by machines, reskilling towards a better paid role may take two years or longer. 70% of displaced workers will find a role outside their current industry.<sup>7</sup>



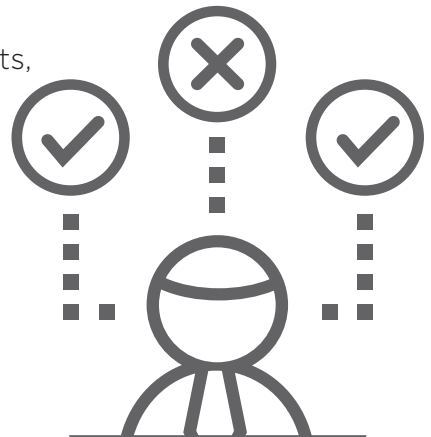
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## The future is human

While it is easy to see fields in which automation might do away with human labour, it is less obvious to predict where technology might create new jobs, just as video game designers or cybersecurity specialists were unimaginable a century ago. There is, however, a consensus that no matter how advanced AI becomes, jobs involving empathy or social interaction will always be better done by humans. For the time period 2016 to 2026, 11 of the top 25 fastest-growing occupations are health care-related, where human skills are essential. These occupations include: home health aides, personal care aides, physician assistants, nurse practitioners, physical therapy assistants, and aides.<sup>8</sup>

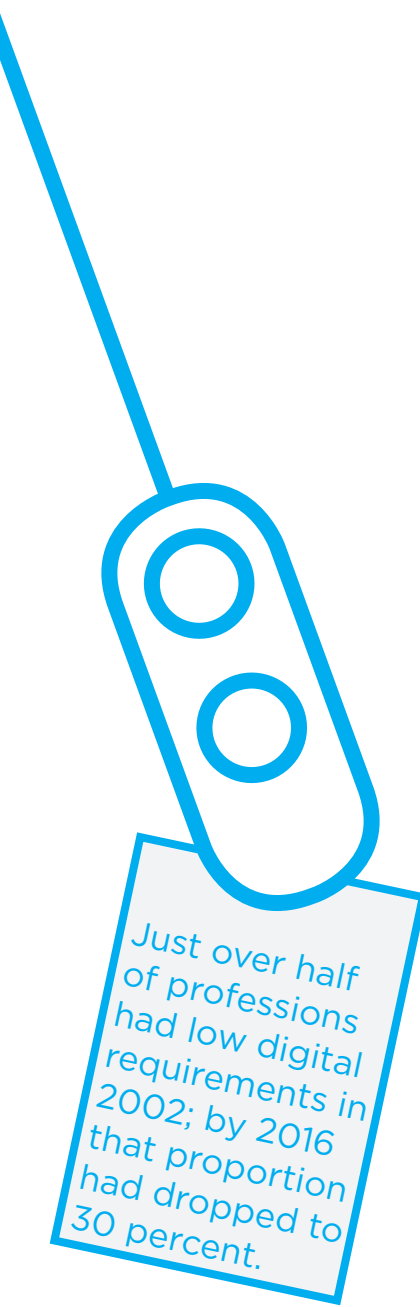


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## Demand for digital

There is a significant need for all workers to develop basic digital skills for the age of automation. A British parliamentary report in 2016 found that 23 percent of the UK population, or 12.6 million people, lack basic digital skills at a time when 90 percent of new jobs require them. This increase in demand marks the continuation of an existing trend in which the digital component of occupations such as nurses and construction workers have substantially expanded. Just over half of professions had low digital requirements in 2002; by 2016 that proportion had dropped to 30 percent.<sup>9</sup>



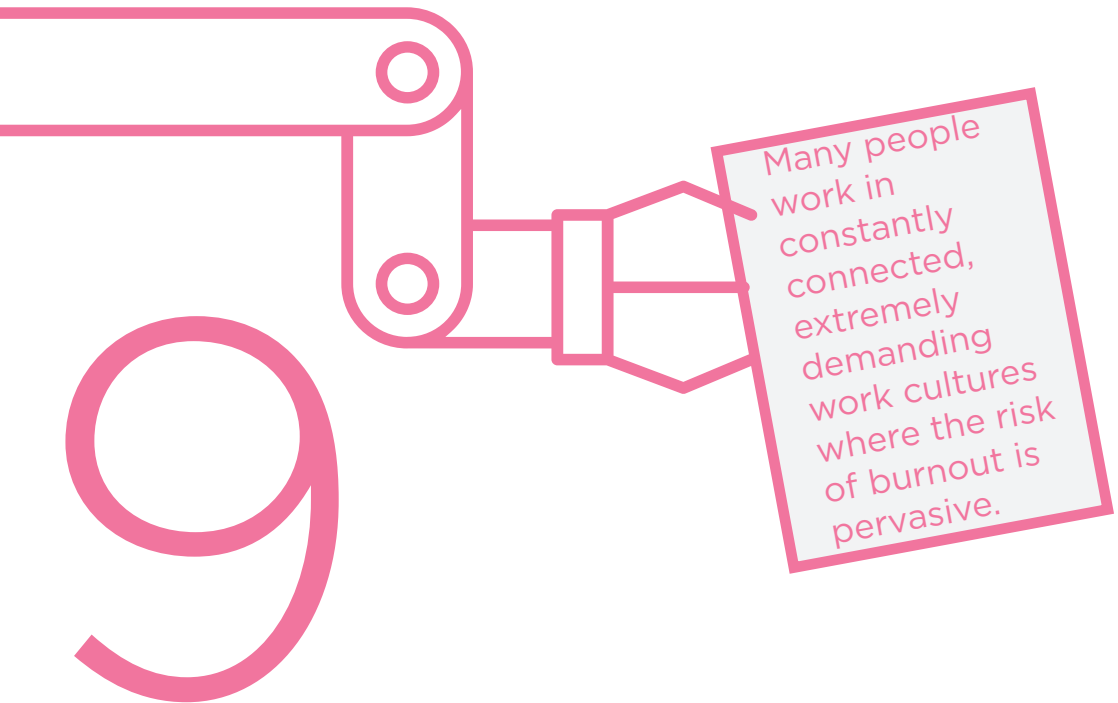
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## Good work

Quantity of jobs is only one indicator of a healthy labour market. Just as vital is the quality of work: vitality, connection, opportunity and purpose. Technology may be transforming our world, but fundamentally it is companies that will determine working lives for the future. It is up to firms to harness technology to create jobs that celebrate human skills of exploration and empathy, nurture positive environments and encourage healthier careers. As a society we have a vision of what work could and should look like - but the reality too often falls short.



Many people work in constantly connected, extremely demanding work cultures where the risk of burnout is pervasive.

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## The reskilling imperative

Currently, only 30% of employees in job roles with the highest probability of technological disruption have received any professional training over the past 12 months. In addition, they are on average more than three times less likely than employees in less exposed roles to have participated in any on-the-job training and about twice less likely to have participated in any formal education.<sup>10</sup>



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Hot Spots Movement  
West Wing  
Somerset House  
Victoria Embankment  
London WC2R 1LA



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