



TECHNOLOGY TRANSFORMED

DISCUSSION PAPER

Our Management 4.0 campaign is examining the skills and practices that managers and leaders will need in the future; in a workplace and world transformed by automation and AI.

In an age where technology is enabling new business models, disrupting existing business practices, transforming the workplace and shifting the balance of power.

And at a time when society is becoming more diverse, when the workforce is ageing and where the demands and expectations of employees and consumers are changing.

To start the conversation, we are publishing a series of short discussion papers exploring six of the key drivers and forces of change. Together, they lead to one simple conclusion: how we practice management is being transformed.

WHAT WILL INNOVATIONS LIKE AI AND AUTOMATION MEAN FOR THE ROLE OF A MANAGER? WHICH INDUSTRIES AND REGIONS WILL FACE THE GREATEST CHALLENGE? WILL WE SEE THE RISE OF THE DIGITAL MANAGER AND LEADER?

As with each industrial revolution before it, the Fourth Industrial Revolution may be characterised by new technology, but it will be defined by the changes in working practices, patterns and attitudes that this technology enables.

Much of the technology will look familiar: data processing and robotics are nothing new. However, the scale and the flexibility with which they will be deployed, and their integration into wider automated systems will be the defining feature of the revolution. The Fourth Industrial Revolution will be driven by the convergence of computing, data, artificial intelligence (AI) and universal connectivity.¹

By 2030, robots will replace 800 million workers across the world.² Once confined to one task on a production line, robots are already pathfinding their ways around factories alongside human workers, and able to use multiple tools to undertake multiple tasks. Computers are crunching more data, taking into account more variables, and drawing their own intelligent conclusions.

It is estimated that UK GDP could be up to 10.3% higher in 2030 as a result of AI – the equivalent of an additional £232bn to the economy.³ But change is challenging. The Fourth Industrial Revolution offers huge opportunities for efficiencies and for insight - but it creates new competitors, threatens established ways of working and will see some roles disappear whilst also creating new, previously unheard of roles.⁴

“
AROUND 1.5 MILLION JOBS IN ENGLAND ARE AT HIGH RISK OF SOME OF THEIR DUTIES AND TASKS BEING AUTOMATED IN THE FUTURE.*
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What will this mean for managers? There seems to be consensus around the types of roles most vulnerable to automation, with sources suggesting sales, admin, transport and construction roles are at higher risk than non-routine work including management, professional and service roles.

¹ <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Strategy/gx-strategy-ops-the-fourth-revolution-now.pdf>

² <https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Future%20of%20Organizations/What%20the%20future%20of%20work%20will%20mean%20for%20jobs%20skills%20and%20wages/MGI-Jobs-Lost-Jobs-Gained-Report-December-6-2017.ashx>

³ PWC (2017), The economic impact of artificial intelligence on the UK economy

⁴ <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Strategy/gx-strategy-ops-the-fourth-revolution-now.pdf>



But how will technology change the role of a manager and will it lead to the rise of new management practices? Will a reduction in repetitive administrative tasks allow more time for pastoral and performance led tasks? Will technology provide new tools to make managers more effective and productive? And how can we help managers through the transformation to come?

There is already much written about the importance of so-called soft skills in the Fourth Industrial Revolution workplace. There will be pressure for managers to upgrade their management competencies and become “tech savvy” digital leaders, able to understand what technology can do for their organisations and be early adopters of new platforms and new tech tools.⁵ But tasks requiring creativity, problem solving and social interaction, arguably more engaging tasks, will remain the preserve of human workers. More than ever managers may need to be actively agile, emotionally intelligent, able to exercise good judgement and intuitive.⁶

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IN A BUSINESS CLIMATE DOMINATED BY HUMAN/MACHINE COLLABORATION... THOSE SKILLS THAT ARE UNIQUELY HUMAN ARE AN EMPLOYEE'S - AND AN ORGANISATION'S - COMPETITIVE ADVANTAGE.”^{**}

Will change take place at the same pace in all sectors and in all regions? Some studies argue that geographical areas with a higher concentration of unskilled workers will be susceptible to job displacement; others that automation transcends industries and geographical clusters so will affect all organisations in some way regardless of location. Will certain regions be hit harder than others? Will local cultures have an impact? For example, will a university town fare better than a community reliant on farming and agriculture?

There is also debate about whether size matters - will the size of the organisation make any difference to the take-up of automation in the Fourth Industrial Revolution? Will SMEs be priced out of the digital revolution? Or will large organisations face more disruption given the larger workforces they manage?

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IT'S A CHANGED WORLD, DEMANDING CHANGED MANAGEMENT.”^{***}

We want to hear your views on the questions posed in this paper.

To get involved, visit us at:
www.managers.org.uk/managementtransformed

#managementtransformed

⁵ <https://www.forbes.com/sites/bernardmarr/2019/05/13/15-essential-leadership-skills-during-the-4th-industrial-revolution/#4690e270a3a0>
⁶ Ibid
^{*} ONS (2019), Which Occupations Are At Highest Risk Of Being Automated?
<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/whichoccupationsareathighestriskofbeingautomated/2019-03-25>
^{**} <https://trainingindustry.com/articles/leadership/leadership-development-for-the-fourth-industrial-revolution/>
^{***} <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Strategy/gx-strategy-ops-the-fourth-revolution-now.pdf>

