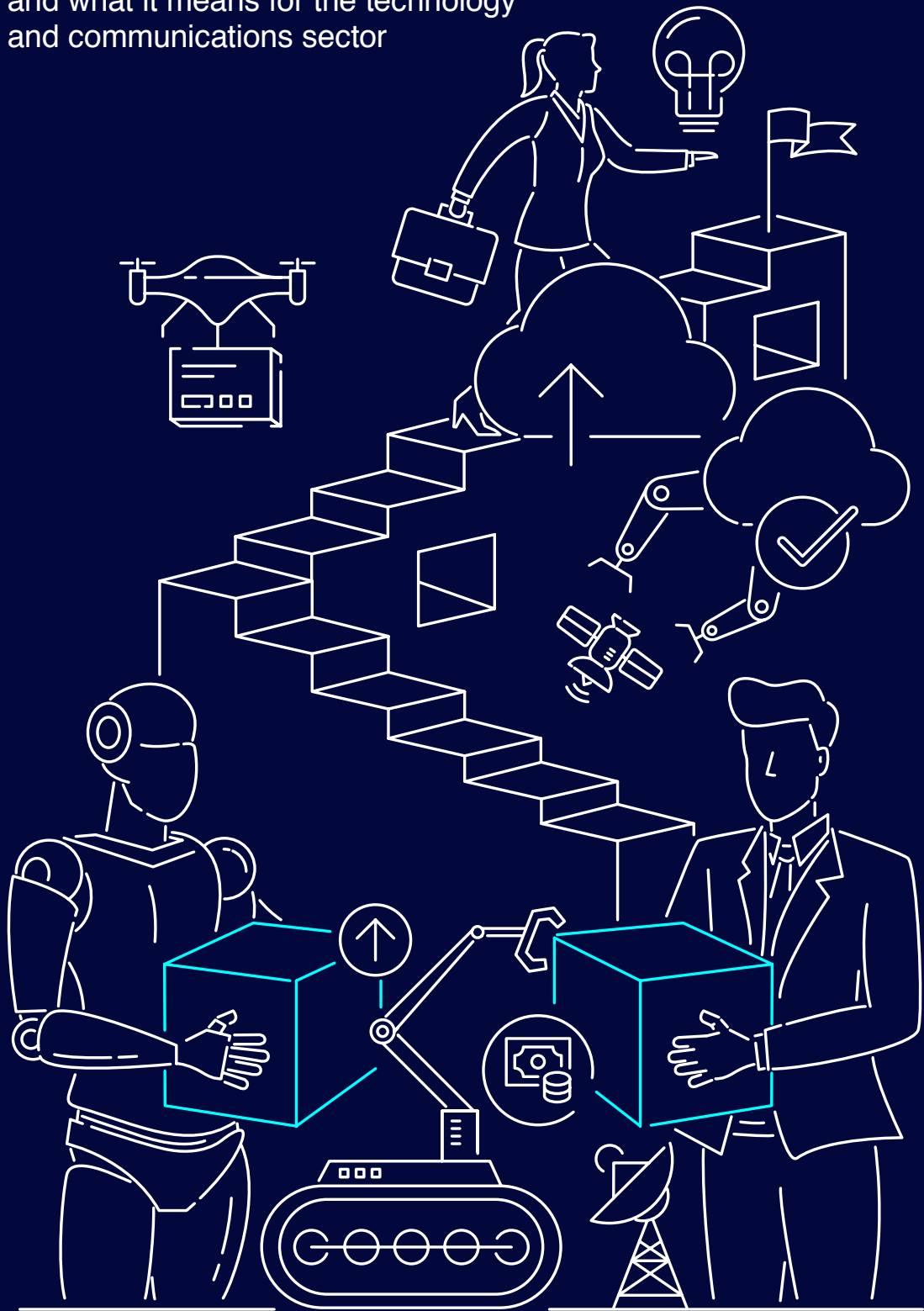


The reskilling revolution

and what it means for the technology and communications sector



The reskilling revolution

The world of work and learning has undergone a seismic shift in recent years. The ever-growing role and power of technology has created more access and opportunity than ever before: anyone with a smartphone can access the course material for a Harvard degree, take part in the “gig economy” or find funding for an entrepreneurial venture. These are all profound and very recent changes to the way we live, learn and work.

A natural result of these changes is a requirement for new and different skills – something that’s already apparent across telecoms as these businesses develop into complex organisations covering not just telecoms, but IT, media, and communications too.

History suggests that if we leave it to the market, the Fourth Industrial Revolution will usher in a long and disruptive period of dislocation. But we are in an advantageous position - we can see the changes that are coming, and it’s a fact that we’re going to have to reskill. That gives us time to prepare and make the very most of this disruption. A key part of that will be reskilling.

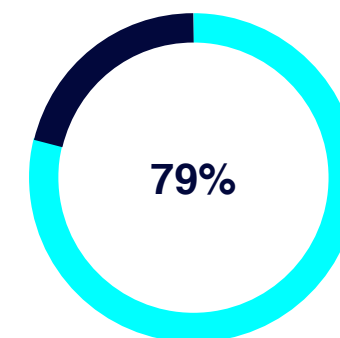
At the end of 2019, Capita collaborated with Professor Lynda Gratton and BritainThinks to consider how the world of work is changing, and what needs to be done to harness the benefits and preserve ‘meaningful’ work into the future. To focus in further on the role of reskilling in this debate, we brought together experts in learning and development from Capita, the world of education and business to discuss why and how we can best prepare for the reskilling revolution – and what this means for the future of learning and development in the telecoms industry. Here are the key outtakes.

The need for a reskilling revolution

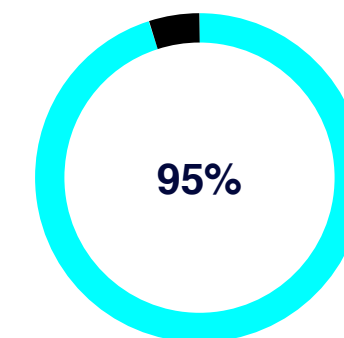
Why do we need to spark a reskilling revolution?

A flurry of studies in recent years have shown that the reality of our changing skills requirements has become ever more urgent. But whichever perspective you take, it’s clear that change is needed - and fast.

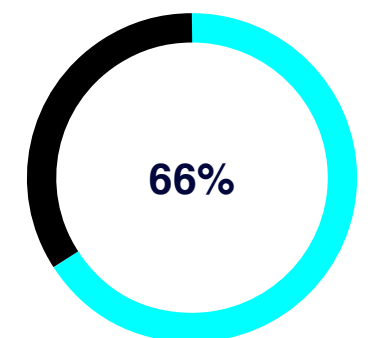
Recent research by the CBI
found that of UK businesses:



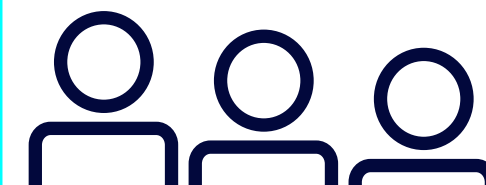
expect to increase their number of higher-skilled roles in the next three to five years.



expecting their digital skills needs to also increase in the same time period.



fear there will be a lack of sufficiently skilled people to fill these vacancies, with the same number already facing digital skills shortages.



Analysis from the Learning and Work Institute suggests a potential shortfall in England of

2.5 million

highly skilled people in 2030 and surpluses of

3.1 million

people for both intermediate skills and low skills.

The impact of this could be a

£120 million

reduction in the UK’s economic output.

Research launched at the World Economic Forum 2020:



54%

of all employees will need reskilling or upskilling by 2022



30%

Yet only 30% of employees at risk of job displacement from technological changes received training in the past year, and those most at risk are often the ones who are least likely to receive any retraining at all.

Despite being a significant driving force for digitalisation, the telecoms industry itself is not always benefiting from it: in fact, the WEF found that the share of profits from this leap forward has dropped from 58% to 47% between 2010 and 2015.

Elsewhere, the Institute of Engineering and Technology (IET) found that half of engineering firms are concerned that a shortage of engineers is a threat to their business with just 20% expecting that to improve in the next 3-5 years.

What is driving the skills

gap?

The most obvious and significant driver of changing skills requirements is the growth of technology. The rapid acceleration of things like AI and automation is changing the way that people and tech interact in the workplace, and is revolutionising work across all sectors and skill levels. Although automation poses a real threat to employment for some, there is huge potential for this tech to improve work for many by eliminating dull, routine tasks - allowing them to focus on more complex, interesting elements of their jobs.

It's also revolutionising how work is done across the telecoms industry – from engineering to customer services. For some roles these technologies spell significant change, with AI now able to undertake predictive maintenance and fuel Self Organising Networks (SONs). For others technology can eliminate or reduce the time spent on repetitive tasks.

AI-powered virtual assistants and chatbots are able to analyse and automate responses to many support requests, which cuts operating costs, improves customer satisfaction and frees up customer service handlers to handle more complex enquiries, human to human.

The sheer pace of change is another salient factor. Change is happening so quickly that individuals and organisations barely get up to speed with the skills they need to excel today, let alone plan for those they'll require in years to come. With the IoT and rollout of 5G already gathering pace, telecoms is not alone in having to constantly reskill its people just to stand still. This places a significant amount of pressure upon companies to work harder than ever before to remain relevant and fit for the future.

Finally, the UK's perennial productivity problem remains an issue. Productivity has flatlined since the 2008 recession and the [ONS recently announced](#) that productivity in the UK had actually fallen at its fastest pace in five years. What's more alarming is that the situation in the UK is significantly worse than other, comparable economies - [with figures from the Conference Board](#) finding that the UK was the only large economy likely to see a decline in productivity growth in 2019/20. The OECD estimates that if the UK's skills mismatch were brought in line with our best-practice peers, this could boost productivity by at least five per cent. A refreshed approach to skills would be a huge lever in solving the UK's productivity puzzle.

“Another key driver is demographic change, with one in three workers now aged over 50. As the retirement age continues to creep upwards, we must move away from generational stereotypes and broaden the conversation on skills to include all ages. Telecoms organisations increasingly need to consider how to reskill employees at different stages in their careers with differing learning needs – not least because many expect this kind of digital experience from highly technological businesses.”

What can we do to fuel the reskilling revolution?

There's a lot we can learn from other countries when it comes to how we can tackle the skills gap. For example, in France, the government has introduced a system called “Mon compte formation” - a skills wallet of 500 Euros available to every French citizen. Businesses contribute to the pot, and the government manages the funds. The programme puts people in charge of their own education - and gives them the financial incentive to do so. It has been radically successful to date, with one million citizens already using the system.

Telecoms is in many ways leading the charge in offering digital skills training and apprenticeships – with [BT in particular championing change](#) through its Skills for Tomorrow programme which aims to equip 10 million people, families, and businesses with the skills they need by 2025. But there's still plenty of examples and inspiration for telecoms professionals to be found in other industries. The banking and finance industries have been particularly impacted by some of the changes explored above. But banks have already taken confident steps to better understand the skills gaps they are facing now and in the future, and how they can up- and reskill their workforces to address it.

We heard from Richard Clayton, Head of Group Learning at Lloyds Banking Group, on how the bank is delivering £3 billion worth of investment into learning and development. This involved a strategic workforce planning exercise to identify the roles and skills that would be required in the future. The business did this by speaking to 10% of the organisation to get their views on what, how and where they learn. The response was unanimous: “We want to learn the way we live”. So, as part of its new strategy, the Group has made a public commitment to deliver an additional four point four million hours of learning and development for employees to help build these skills over three years.

A key learning from this example is the importance of understanding the perspective of employees and keeping the needs of the people at the heart of organisations front and centre when developing and refining their learning programmes. People want to be as good as they can be. They want to learn how the role they play contributes to the bigger purpose of the organisation they work for, and how they can continue supporting that - and being valuable - long into the future. Organisations also have a responsibility to foster a culture that enables learning and re-learning – as Capita's Oli Freestone said, “You can't teach culture”. An environment that fosters a curious mindset, which is led from the top and absorbed throughout the organisation is key to embedding a culture of learning.

There are undoubtedly challenges ahead, given the urgency and difficulties associated with upskilling a workforce for a relatively unknown future. But there are also opportunities. The transformation brought by the Fourth Industrial Revolution, or Industry 4.0 as some call it, will create demand for an [estimated 133 million new jobs](#) with vast amounts of opportunities for fulfilling people's potential and aspirations.



Key takeaways

Future success is dependent on the quality of your people. As Richard Clayton summarised, anyone can replicate products but it's the calibre of the people who execute these projects – and seamless customer experience – that are key to success.

Every organisation has its own unique challenges and opportunities when it comes to reskilling. The key is to identify what you need and how to make that happen – whilst not forgetting the ‘why?’ if you're going to succeed in a business-wide reskilling revolution. Connect employees to the purpose of your organisation – then encourage them to share their perspective on the areas of their jobs where reskilling or upskilling would have the biggest impact. Use that to give them a skills plan to meet their personal purpose, which delivers the business purpose in turn.

The rising role of technology

While we've established the disruptive role of many technologies, by the same token technology has a key role to play in propelling the rate of learning within businesses to new heights. We've clearly established why a reskilling revolution is needed, but amidst so much change it can be incredibly difficult for businesses to identify what their needs are going to be or what trends will be most pertinent to their future.

According to the ONS, 7.4% of jobs in the UK are currently at high risk of automation, equating to 1.5 million roles that are likely to be replaced in the near future. Telecoms is categorised as a medium-risk industry, with a 49% risk that some or all of the duties and tasks of engineers, for example, will become automated.

But, at the same time, new roles are being created. Analysis by BNP Paribas and the Centre for Economics and Business Research (CEBR) suggests that there will be a boom in the UK science, technology and healthcare industries, creating a combined 2.7 million jobs over the next two decades, and importantly across regions such as Manchester and 'Silicon Fen' – the area around Cambridge's life-sciences hub. Research by Qualcomm highlights that the global 5G value chain will generate \$3.6 trillion in economic output and support 22.3 million jobs in 2035.

Understandably, the bad numbers tend to make a bigger splash than the positive ones, contributing to increased anxiety about the future of the workforce. 59% of those surveyed for Edelman's 2019 Trust Barometer expressed anxiety around not having the training or skills necessary to get a good paying job; a further 55% feared automation and other innovations would be a threat to their job.



Cross-generational impact

With an increasingly multi-generational workforce, there are key issues to consider for both young and old. As Ismail Amla said, “We are digital immigrants changing things for digital natives.” It’s essential to keep up with the pace of change.

But it isn’t the case that all younger workers are crying out for more technology in the workplace. Pinda Dhillon, Director of Learning and Development at Centrica, believes there’s a misconception that because young people are digital natives they are totally comfortable using technology in the workplace. While it’s certainly true young people are adept at using certain technology in their lives, such as social media, there is – for some – a fear and uncertainty about the types of tech they might be expected to use at work.

Her experiences tie in with the findings of Lloyds Bank’s Consumer Digital Index, which reveals that more than half of UK employees (53%) do not have the minimum level of digital skills, like using digital collaboration tools or managing digital records and files. For organisations built around digital technologies – like telecoms – the expected level of digital skills is even higher, making this impact felt more acutely.

Organisations therefore have a responsibility to ensure that their employees feel comfortable using the technology available to them. Going back to basics and establishing a foundation of digital understanding that is shared between all employees is key. But once this has been done, people need balance between enough structure to ensure continued development and growth alongside the freedom to self-serve their learning in a way that suits them. After all, Lloyds’ Digital Index also found that workers with digital skills are paid, on average, £12,500 more per year than those without – so there’s a clear imperative for the individual to conquer any fears they have around technology.

How technology can support

Technology is already transforming the way we learn and reskill – we have quicker access to more information and knowledge than ever before. So, while there are understandable concerns about the impact of technology on job roles, it’s important to remember that it also brings opportunity, particularly when it comes to improving efficiencies and access to learning. Technology allows us to guide people and show them, rather than just telling them the theory.

BT explained the huge benefits of being able to use technology to augment learning for their engineers. Being able to show them what issues they might come across on-site and what those look like means that when faced with that situation in reality, they have already ‘experienced’ it virtually. Centrica agrees that getting the blend right is key, delivering 50% of its training through a virtual classroom but balancing that with face-to-face engagement.

Ismail Amla believes that the key benefit of technology is that it enables people to experience more “doing” which is how most people actually learn. Learning is typically split into three areas: 10% through courses or more formal learning structures, 20% through feedback from managers, peers, and colleagues, and 70% through ‘doing’. It’s this 70% where technology can really support organisations looking to upskill and reskill their workforce.

Recent CBI research found that on-the-job training – usually informal – remains the most common approach to workplace learning, cited by 85% of survey respondents. But just over three-quarters (79%) are also utilising e-learning materials alongside short, more intensive learning courses (74%). These findings match global trends highlighted by Pearson which demonstrate that people are increasingly using digital and virtual learning, as well as ‘bite-sized’ modular courses across their entire lives.

These approaches make learning more accessible than ever before. Instead of one day out of the office every six months on a training course, technology supports people to learn new skills or extend their knowledge through short online courses, YouTube videos, or online forums; which can be peppered throughout the working day, watched on a commute or done over the weekend - at a time and place to suit the individual.

Companies such as Better Up are supporting this new approach by using the latest research across the behavioural sciences to create personalised approaches to organisational transformation. It uses machine learning to help match people with world-class coaches and personalised development strategies.

Such approaches will be transformative for individuals and organisations alike. Organisations have the responsibility to empower their employees to take learning into their own hands and understand the importance and value of reskilling themselves for their future success.

“Organisations have the responsibility to empower their employees to take learning into their own hands.”

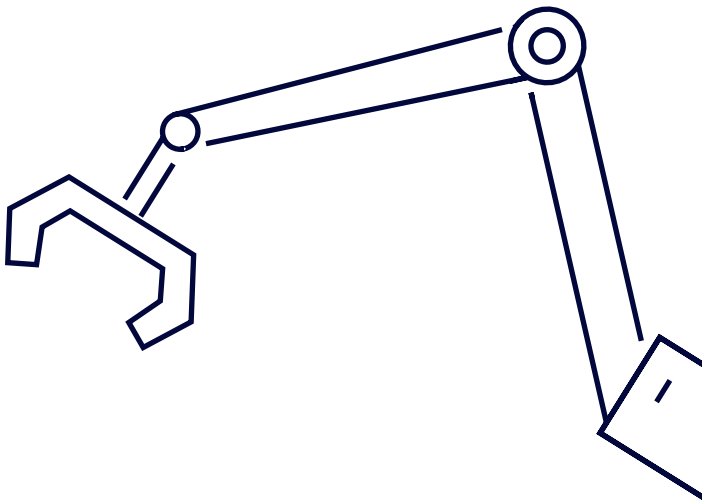


Key takeaways

Technology should not be the object of learning - it should be an enabler and facilitator of it.

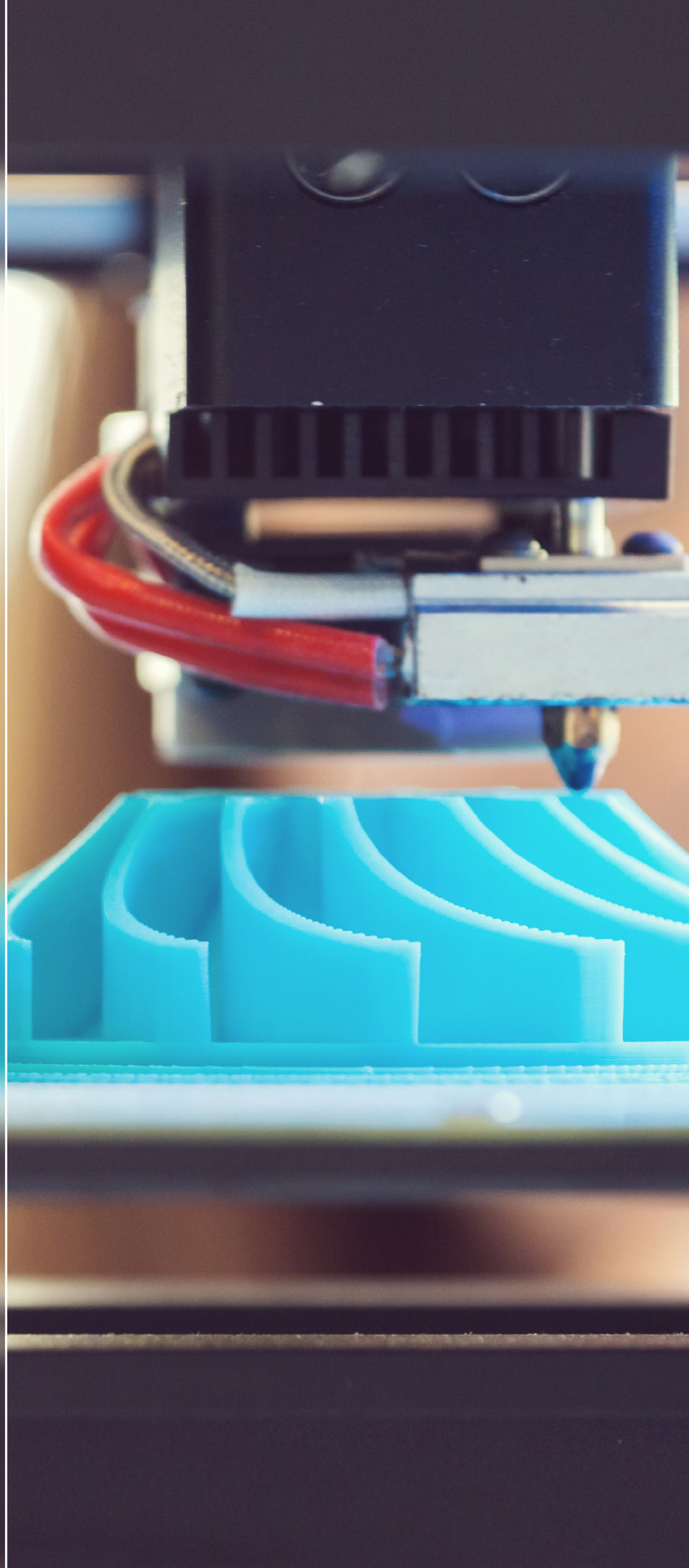
The first step in doing this is to understand the existing barriers to learning. Ask different stakeholders within your organisation what’s stopping them from accessing or applying learning, and then work out whether these can be addressed with technology.

For example, is the wider organisation supportive of the implementation of technology? Do employees have the time and support to use it? Are there other barriers to technology being used correctly, from security and control issues to learner motivations? If so, what strategy is in place to mitigate these? By focusing on overcoming these at the beginning you can ensure that the technology is helping solve a problem, rather than providing another layer to learning.



Mapping the skills of the future

The current skills debate centres around the specific skills we will need to succeed in the future. But in reality, the world of work is changing so rapidly that no one can truly predict or anticipate which skills will be top of the list in five, ten years' time. We therefore need to shift the focus from skills to looking much more closely at people's capabilities. As Max McLellen, Head of Learning Operations at BT said, "Soft skills are the new hard skills. Machines will do the ordinary; humans will do the extraordinary".



Knowledge is no longer power

We now live in a time where knowledge is at less of a premium - people can find the answer to anything at the click of a button, a tap on a phone or even just by talking to a virtual assistant. So the challenge lies in redesigning our learning systems to foster our natural curiosity. With business requirements continuing to change at speed, the focus needs to shift from the acquisition of particular skills and knowledge to the process of learning how to learn to do new things.

After all, though telecoms professionals will need a certain level of base knowledge to do their job, the ability to diagnose and work through problems more generally will be far more valuable than technical skills which will become obsolete faster than ever before. For an engineer, their ability to diagnose and work through a problem will be far more valuable than their understanding of a particular router or cable. And when it comes to customer experience, new tools and data can massively improve customer service, but it's knowing how to use and respond to that data and really understand someone's problem that creates excellent customer service.

The World Economic Forum predicts that 65% of children entering primary school today will ultimately end up working in completely new job types that don't currently exist. Given this, it makes sense to channel effort into preparing people to keep up with the pace of change by developing core soft skills that are more likely to remain relevant and retaining a natural curiosity for exploring and understanding new ideas and approaches.

A coding school in Paris, called '42', is a good example of how a focus on softer skills or capabilities over hard skills leads to better results. The school is designed for people of all ages and capabilities. You don't need any prior qualifications and there are no fees or teachers. Instead, students learn using a software system called 'intra', which evaluates and leads them through projects by encouraging them to find the answers on their own, or work with their peers. The focus isn't on learning how to code, as coding language changes so quickly, but instead it teaches them how to learn how to learn.

Skills to survive

But while this type of approach is a vital part of preparing for the future, it's important to remember the reality of the shortages of hard skills currently faced by many businesses in the UK. Having access to the right skills is imperative for businesses seeking to accelerate their growth. Skills are a form of currency and are providing new competitive advantage by which organisations can measure their success.

Research by the Royal Society has found that demand for new types of skills is rising - for example, businesses seeking workers with specialist data skills like data engineers and data scientists has more than tripled over the past five years (up by 231%). Similarly, jobs board Indeed has found that demand for AI skills has almost tripled over the past five years.

Getting access to the right skills - whether bought, borrowed or built - is one of the most important decisions facing organisations today. In fact, recent Capita research has revealed that 88% of business leaders believe that upskilling employees in new and emerging areas is essential.



Key takeaways

In the face of rapid change, the way that we think about learning and professional development must change. Rather than being restricted to traditional qualifications that quickly become outdated, people need to be able to build transferable skill sets that can be taken with them along their career journey.

Mapping skills, capabilities and behaviours for the future is a key tool for both employees and organisations to identify a roadmap for the future and highlight the hard and soft skills that will be critical to ongoing success.



Conclusion

We are living at a time of unprecedented change. The OECD estimates that 1.1 billion jobs are liable to be radically transformed by technology in the next decade. This is particularly true for telecoms, which is already experiencing a period of significant digital transformation, thanks to the arrival of tech like 5G, big data and the IoT as consumer demand for increased connectivity capacity continues to increase.

Analysis by the World Economic Forum predicts an overall net positive between job growth and decline, but also suggests that skills instability with all jobs will mean that nearly half of core skills are set to change by 2022 alone.

If this trend continues, as it's widely expected to do, the outdated approach that many currently take to learning will further exacerbate the skills mismatch in the future. But while technology is a key factor contributing to the seismic shifts currently happening, it also has massive potential to unlock huge benefits in making learning more dynamic, to fuel the skills that we need for the future.

The reskilling revolution is critical if organisations, individuals and UK PLC is to thrive in this new decade, and beyond.



Appendix

This whitepaper is based on a roundtable event held in January 2020 at Burlington House, London, with the following participants:

Matthew Gwyther	Moderator
Ismail Amla	Chief Growth Officer, Capita
Mel Christopher	Head of People, Culture and Change, Capita
Dan Ferrandino	Director, Capita Learning Services
Dr Oli Freestone	Head of Institute, Capita
Desmond Bermingham	Chief Executive, Australian Council for Education Research (ACER) UK
Kameel Khan	Visiting Scholar of Law at Stanford University and Social Entrepreneur
Richard Clayton	Head of Group Learning at Lloyds Banking Group
Pinda Dhillon	Director of Learning and Development at Centrica
Max McLellen	Head of Learning Operations at BT

