

DIGITAL TRANSFORMATION

03 INNOVATING AND CREATING FROM HOME

12 FIVE WAYS TO STOP PHISHING IN ITS TRACKS

18 MAKING THE CASE FOR LIFELONG LEARNING



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DIGITAL TRANSFORMATION

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INNOVATION

Innovating in a remote environment

If remote working is to become the new norm, where does it leave innovation and the diversity of thought that drives it?

Alison Coleman

After months of enforced working from home during lockdown, when only a quarter of UK employees want to go back to the office full time, 55 per cent report higher levels of productivity.

The finding, by identity management firm Okta, reveals a major productivity benefit of remote work, which bodes well as a future model for businesses that embrace the necessary technology and digital transformation.

But in the absence of an office-based physical workspace and the spontaneous interactions that often spark new ideas, it leaves bosses with another challenge: how to innovate at work?

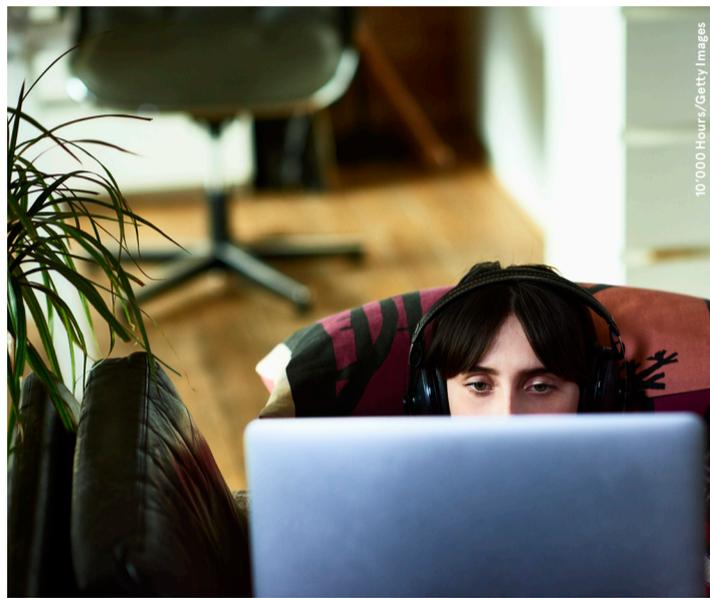
Home working can recapture the time lost to commuting and its flexibility is conducive to productivity, as well as home life. However, a number of the benefits of face-to-face working are lost, particularly the creation of social ties and reciprocal trust essential to innovation.

"Research from Massachusetts Institute of Technology has shown successful innovators build a foundation of trust around micro-interactions that occur in the workplace. And the Allen Curve shows that if you don't see someone face to face, you don't collaborate with them," says David Shrier, programme director at Oxford Cyber Futures.

"New technology can help bridge this gap, even to the extent of having an artificial intelligence, or AI, assistant that helps your team do a better job of working together. This technology exists, but it's down to the willingness of organisations to implement it."

A new report, *Innovation and communication media in virtual teams: an experimental study*, by the University of Cologne and Leibniz University Hannover, suggests employees working from home are unlikely to be less innovative. The report says video conferencing among team members can compensate potentially negative effects on innovation when employees work remotely from each other.

"Previous research has shown that creative performance is significantly lower when there is no face-to-face communication," says Professor Bernd Irlenbusch, who co-led the study. "However, the current lockdown has fostered the adoption of new technologies to conduct collaborative tasks when team members work from home.



10 000 Hours/Getty Images

Video conferencing can mitigate the gap in creative performance."

But is it possible to replicate the creative spark and harness the collective energy that drives innovation among a remote team? To try and recreate those spontaneous exchanges, global media agency Wavemaker is looking at how to innovate at work by encouraging everyone worldwide to call five people a week who they would normally bump in to in the office.

Global head of organisational effectiveness and chartered occupational psychologist Emma Brock says: "There's no agenda, no formal calendar invite, just a random call to say hello, see how they're doing and see if this sparks a good idea or new opportunity."

Nigel Davies, founder and chief executive of digital workplace Claromentis, believes the company has already solved the challenge of how to innovate at work when staff are apart.

Before the coronavirus pandemic, the team of 40 worked from home or the office, as they liked.

Productivity levels are maintained by replicating the innovative company culture in its digital workplace, prioritising good communication, using project management tools and encouraging online learning. Staff use their collective energy to innovate continuously, while individuals are encouraged to work on product or company innovation solutions of their own.

Davies says: "Three of our coders joined forces to create a more accessible build system for our codebase, and another team has been working on a new way to get relevant functionality to our customers without them having to upgrade, so we can deploy anything they need in these unusual times really quickly and simply. We've also developed a new process that makes it easier for smaller companies to try our software.

"How to innovate at work is to ensure innovation is truly ingrained in your culture and to remove any barriers to getting started. We have Slack channels dedicated to ideas and innovation, we encourage people to work on their own projects

without asking and we publicly celebrate initiative."

The company hosts an annual innovation week hackathon event when everyone briefly downs tools on client work and spends time away from the office together, working in small teams to build anything they think the business would benefit from. Last year's event saw bugs fixed and new processes written.

"There's no reason we can't replicate our hackathon virtually using our proprietary remote collaboration and project management tools," says Davies. "By dedicating a week to innovation and temporarily halting client work, our employees have the time and headspace to create and build. We'll still look to make the week as enjoyable as possible, with social events scheduled throughout the week on Zoom."

There are digital tools and apps for stimulating creative thinking and solving problems alone, such as brainsparker, an app that generates random prompt cards to overcome mental blocks and spark fresh thinking, and Coggle, an online tool for creating mind maps and flow charts.

"Innovation can occur and prosper in solitude, just as it does in team-oriented environments," says Dr Julia Jones, neuroscientist and founder of The Music Diet. "It can occur during deep, focused thinking, as well as spontaneously and instinctually. So remote working is just as likely to engender forward-thinking and 'eureka' moments, such as those that take place around the water cooler, when someone is walking their dog and their brain is in a default and uninhibited mind-wandering mode."

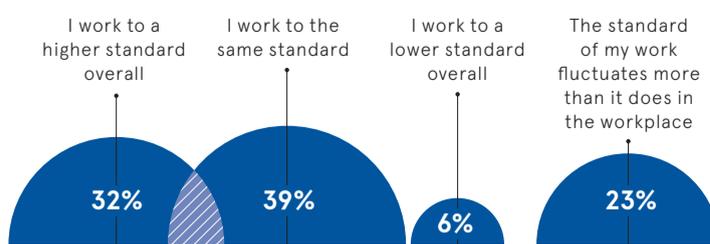
Given that diversity of thought and inclusivity are the building blocks of innovation, remote working could offer greater opportunities to enhance the diversity of the workforce as companies are no longer restricted by geographical boundaries when hiring.

The move to distributed working is also providing opportunities for different people to shine, says Bev White, chief executive at Harvey Nash Group. "Whereas in traditional office working it's usually the more extrovert and self-confident people who take the lead, the more remote working model changes that.

"Other qualities – independence, efficiency, self-organisation – become more important than before, and these attributes can provide a real boost to productivity and innovation." ●

CHANGING STANDARDS

Raconteur's readers, employees, journalists and social followers were asked if they worked to a higher or lower standard when home-working, irrespective of lockdown



Raconteur 2020



Boxing at Bristol City Academy; Sport England has sped up grant awards to manage the influx of applications amid the crisis

“

We quickly rolled out a digital process that enabled us to process applications far more quickly than would have been possible under a 'business as usual' scenario

Digital service for the vulnerable

Unitary authority Buckinghamshire Council only officially came into being during the pandemic, on April 1. An operational redesign for its creation connected IT, human resources and financial services via ServiceNow's cloud-based platform.

COVID-19 kickstarted public sector digital transformation to protect vulnerable citizens asked to shield and support them with new, critical services.

ServiceNow partner Unifi and Buckinghamshire's IT team integrated ServiceNow and the council's online customer service system, going from six data fields in a spreadsheet to 90-plus fields of essential information managed and updated in real time.

This solved real-world problems caused by the pandemic, such as co-ordinating food parcels, delivering medicines and providing practical support, including dog-walking and arranging friendship calls for those in isolation. The platform is used for everything from ordering personal protective equipment to checking whether a vulnerable person has enough food or a patient's prescription has been collected.

"We have an accurate, single source of truth for all the data we are collecting, with real-time dashboards, which means no vulnerable person should ever be overlooked," says Tony Ellis, service director of ICT at Buckinghamshire Council.

Employees take a digital transformation journey

By delivering in five days an IT project that should have taken eight weeks, HM Revenue & Customs (HMRC) pivoted from being largely office based to supporting upwards of 50,000 employees connected remotely. HMRC built a new remote access working platform able to handle much greater numbers. But as lockdown loomed it faced the challenge of rapidly packaging, testing and deploying software to more than 60,000 devices.

Once the software was released, it took less than 48 hours to get the majority of HMRC employees connected from home,

with IT partners also able to access the new platform. The result was a service that has run with almost no interruption. Without it, HMRC employees could not have worked from kitchen tables and spare bedrooms to deliver the Chancellor Rishi Sunak's COVID-19 relief packages.

"We worked round the clock and the team was incredibly focused on getting the job done, rewriting parts of our approach to deliver change as we went," says HMRC head of enterprise platform services Maurice Mattholie. "We've enabled new ways of working for our employees and are consolidating what we've learnt about how the organisation has adapted to change. It's a big opportunity to continue to improve our ways of working."

Assessing a wave of care innovation

The NHSX unit brings together teams from the Department of Health and Social Care, NHS England and NHS Improvement to drive the digital transformation of care. In response to the COVID-19 crisis, it launched Techforce19, a competition calling for innovations to support the elderly, vulnerable and self-isolating during the pandemic, offering government funding of up to £25,000 to put potential solutions to the test.

Between March 23 and April 3, the challenge received more than 1,600 applications. On April 24, NHSX announced it had whittled these down to 18 public sector digital transformation solutions to be assessed more thoroughly.

Among the solutions NHSX is looking at are Virti, which couples virtual and augmented reality with artificial intelligence to deliver training and patient education; Simply Do, a virtual community for self-isolating medical professionals, designed to harness their expertise as a think tank in the fight against COVID-19; Aparito, focused primarily on patients with rare diseases, which uses remote-monitoring technology to gather patient-generated data outside hospital via videos, wearable technology, photos and text; and Feebris, an app to help identify health risks and deterioration among the elderly. ●

PUBLIC SECTOR

Kickstarting change in the public sector

The public sector has been traditionally slow to adopt emerging technologies, but the coronavirus pandemic has forced a number of areas to adapt. Here are five recent examples of how COVID-19 has accelerated digital transformation efforts across the public sector

Rob Gray

Speeding up grant awards through process automation

Working with IT services company Atos, Sport England introduced a full bespoke digital process for managing emergency grant assessments. This public sector digital transformation solution meant it could manage the influx of applications from sports clubs in financial distress due to the coronavirus pandemic and become the first National Lottery-funded organisation to start distributing grants.

1 In just 37 days, Sport England processed 11,044 applications for money from its emergency fund, making 7,500 emergency

support awards to clubs and grassroots groups totalling £27.5 million.

"In response to the urgency of the situation, we quickly rolled out a digital process developed by Atos that enabled us to process applications far more quickly than would have been possible under a 'business as usual' scenario," says Mike Diaper, executive director at Sport England.

"COVID-19 has presented new challenges for all parts of the economy with swift mobilisation required to respond to the new conditions that we have all been operating under. This new digital approach allowed us to allocate grants to assessors and deploy automation for review of completed assessments and generation of awards."

Protecting medics and patients with mixed-reality headsets

COVID-driven public sector digital transformation can be seen in action on the NHS frontline. Staff at Imperial College Healthcare NHS Trust are wearing Microsoft HoloLens headsets while working in high-risk areas at some of London's busiest hospitals.

Using Microsoft Teams and remote assist technology, secure live video is fed to a computer screen in a nearby room so healthcare teams can see everything the doctor treating COVID-19 patients can see, while remaining at a safe distance. Imperial says HoloLens has delivered a fall of up to 83 per cent in the time staff spend in high-risk areas, while also significantly reducing the use of personal protective equipment.

2 Rather than putting users in a fully computer-generated world, like virtual reality, HoloLens allows them to place 3D digital models in the room alongside them and interact with them using gestures, gaze and voice. Doctors wearing the headsets can hold hands-free video calls with colleagues and experts anywhere in the world. Medical notes and X-rays can also be placed alongside the call in the wearer's field of view, all while interacting with patients.

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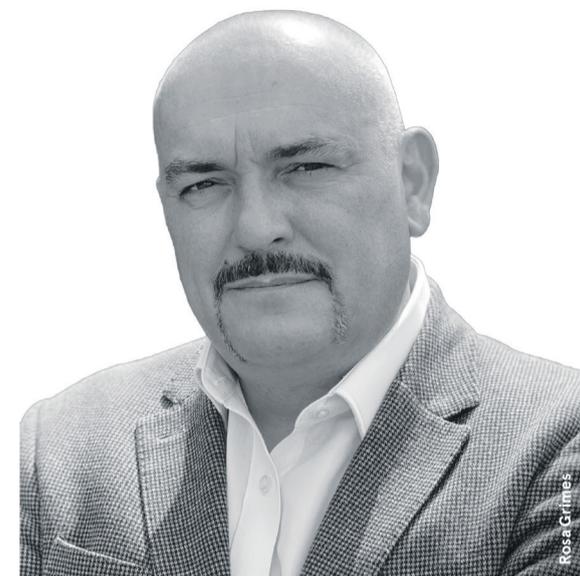
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Q&A

Digital transformation without the hurdles

Neil Roberts, head of public sector at Fortrus, shares his experiences of this momentous year so far and explains the Fortrus Framework



Q An interesting start to the year for us all, how has your business been impacted?

A Yes, it's definitely been an unusual year so far, but we've been busier than ever. In many respects it's been business as usual, but there has also been a significant increase in procurement activity channelling through the framework.

Q The Fortrus Framework sounds like an interesting proposition; for those who aren't familiar with it, can you provide a little background?

A In 2019 Fortrus was awarded a pan-public sector digital transformation framework, now operating as the Fortrus Framework. It acts as a pre-approved route to market for our customers; a pre-competed, OJEU (Official Journal of the European Union) compliant framework that can be used by any public sector body seeking to digitally transform their organisation. While it's solely operated by Fortrus, one of its unique benefits is that we operate it as a true multi-vendor framework. We proactively engage suppliers to enable them to work individually, or collaboratively with other suppliers, in delivering the outcomes our clients need and we can let contracts for up to ten years' duration.

It is not only the scalability of the framework that sets it apart, it is the fact that Fortrus was awarded the framework based upon our extensive subject matter expertise across the public sector, combined with our understanding of the commercial models and constraints public sector bodies operate within.

Q Which organisations can use the framework and is there a limit to the scale of project that would fit within it?

A The framework is completely versatile and allows any public sector body to transform itself digitally. That can range from commodity purchases, such as laptops and licences, in order to mobilise a workforce due to the coronavirus, for instance, or to

deliver a very complex programme, such as a cloud migration strategy for UK policing. Indeed, we actively collaborate with police forces directly, as well as providing £1 billion of capacity to policing in partnership with the Police ICT Company (PICTCo), which has been a very successful partnership for us and PICTCo due to our capability to deliver national public sector economies of scale.

Q Why do we need another framework?

A Traditional procurement routes can be protracted and lack agility. Agility lies at the heart of the Fortrus Framework, as does partnership. Most procurement exercises are adversarial; they deliberately force public bodies to choose between suppliers rather than working with them collaboratively to get the best outcome.

The Fortrus Framework enables public sector bodies to procure and deliver solutions that harness the best capabilities from tech startups through to large systems integrators, or a combination of them. The important thing is to understand the outcome being aimed for and to build a partnership that will deliver it. Our capacity to procure that outcome in the most cost-effective and timely manner is where we come in.

Q It almost sounds too good to be true?

A I hear that expression a lot and it's always a rewarding experience to prove just how effective the framework is, particularly the speed with which an organisation can procure. As I said before, this agility is crucial to delivering digital transformation.

Q Digital transformation is increasingly important in the provision of public services. What advice can you give public sector chief executives in procuring digital transformation solutions?

A My advice would be to think about digital transformation as a different beast to traditional purchases. Procurement strategies are typically based on delivering products and solutions that are either static,

such as stationery or hardware orders, or change relatively slowly, such as desktop applications. Digital transformation, by its very nature, is fluid and we cannot expect the same procurement practices to apply.

During lockdown the government relaxed procurement legislation. This was to stimulate the end-to-end supply chain to perform efficiently. We see that as a tacit acceptance of the fact that current procurement practices can stifle efficiency and innovation. A large part of our role, and our value, is to bring procurement advice within your organisation up to current capabilities. We meet a lot of procurement directors who privately admit they have a real trepidation in stepping away from their known routes, but at the same time they acknowledge procurement needs to transform too.

When embarking on a digital transformation, Fortrus will quickly understand what you're trying to achieve, clarify and develop the outcomes you're looking to deliver, and then work with more than 150 of our partners to shape a solution and achieve that outcome for you.

This can be as a procurement only, or procurement and delivery, through to a full ten-year managed service. This approach helps to manage risk too. You procure once, directly, with Fortrus as the prime, and have peace of mind that they will manage an ecosystem of vendors to deliver the transformation you are looking to achieve. And if one of the vendors in the chain fails to deliver, Fortrus can simply and quickly swap out that failing component without the need for reprocurement.

Q What three things can business leaders take away and do differently today, and what should they do differently with their next procurement?

A Firstly, ensure their procurement includes innovation. Digital transformation as an agenda can only be met by using innovative, new capabilities to throw off the shackles of legacy technical debt to deliver efficient, accessible and inclusive public services.

As an example, British small and medium-sized enterprises drive and stimulate much-needed innovation. Very often these businesses would be precluded at the pre-qualification questionnaire stage of any traditional procurement process. The Fortrus Framework provides a route to market for these transformative organisations that hitherto didn't exist.

Secondly, you should challenge reliance on traditional procurement routes. Spending public money to jump over the procurement hurdles unnecessarily is a thing of the past. Forcing vendors through expensive bid processes costs them money that they will always need to recoup in the cost of the transformation they deliver. Again, this negatively impacts the public purse. The time it takes to create a strategy, go to market, adhere to old-fashioned processes, award and then manage component vendors, and the risk of delivery, can be drastically reduced and mitigated.

Finally, look for the obvious economies of scale. Public services need to be seamlessly interoperable with those who consume them. When creating your transformation strategy, look to those other public bodies you interface with. Work collectively to identify opportunities to procure outcomes together. Fortrus can draw upon its knowledge of public services, vendor community capabilities and our stimulated innovations to deliver cross-vertical outcomes at pace and without risk.

Q What actionable options are there for someone part way through a traditional procurement?

A Stopping a public sector procurement is very rarely done. The protracted nature and the



The important thing is to understand the outcome being aimed for and to build a partnership that will deliver it

£75k

Cost savings experienced by our customers per major purchase

5 months

Time saved by our customers per major purchase

cost to organisations often means they continue even though what they are doing might not be the fit-test-for-purpose process.

The direct award nature of the Fortrus Framework, supported by subject-matter expertise, means organisations can, with confidence, review their current course of action and move very quickly to remediate. There is a better way to take public sector organisational requirements to market, to get the services the public needs efficiently and effectively.

Please visit us at fortrus.com



Traditional procurement routes can be protracted and lack agility. Agility lies at the heart of the Fortrus Framework



LEADERSHIP

Putting the customer front and centre

Why the chief customer officer is quickly becoming a key driver of digital transformation

Suchandrika Chakrabarti

Adoption and rollout of emerging technologies used to be the sole responsibility of the chief information officer or chief technology officer, but a new digital transformation champion is emerging in the C-suite: the chief customer officer (CCO).

CUSTOMER ENGAGEMENT HAPPENS IN REAL TIME

Survey of consumers and business buyers

56%

of customers expect to find whatever they need from a company in three clicks or less

45%

can generally find whatever they need from a company in three clicks or less

57%

won't buy from a company that can't ship quickly and cheaply

59%

will take their business to Amazon if a company can't match their shipping speed and cost

Salesforce 2019

And this comes as no surprise, since changing customer expectations drives 80 per cent of all digital transformation initiatives, according to a recent McKinsey & Company survey.

"This role should be thought of as the advocate in the company for the customer," says Rabia Qureshi, CCO at ecommerce agency GPMD. "The CCO is there to remind the business to factor in what the customer wants. Otherwise, money and time can be wasted in correcting mistakes and backtracking key decisions."

Rapid advancements in technology mean consumers now have the power to dictate the rules and control their relationships with brands. CCOs must ensure their companies are able to keep up with these expectations about quality and speed of service, as well as the data that arises from these behaviours.

"The task of the CCO is to ensure customer feedback is not only sought after and heard, but also actioned upon, to drive customer satisfaction and loyalty," says Conny Kalcher, CCO at Zurich Insurance.

Libby Duane Adams, CCO of desk-top-to-cloud platform Alteryx, adds: "Listening to customers and learning from what they tell you is vital for success in 2020." As a digital transformation leader, it is essential for the CCO to highlight to the rest of the company the range of tools that can give greater insight into customer needs. This includes using text analytics to review the sentiment of social media or survey responses and keeping up to date with the company's net promoter score, she says.

Furthermore, the understanding of these analytics should not be restricted to just one or two teams internally. "The everyday data worker who is usually equipped

with little more than a spreadsheet should also be able to use these data analytics tools," she adds. Caring about customer experience should be woven into every department.

"The ultimate ambition should be to create a seamless experience that allows the customer to choose when, where and how to engage with us," says Kalcher, pointing to the recent Zurich website revamp in collaboration with Sitecore, an expert in digital experience management. The idea of "putting the customer journey at the heart and building the whole website around it" was central to the project, she says, adding that it is important "to delight customers" to stand out from the crowd and build brand loyalty.

GPMD's Qureshi says: "During the coronavirus pandemic, firms that didn't have a strong online business to start with had to quickly ramp up their offering or go bust. The virtual touch needed to become the personal touch and fast. Not knowing how to leverage social and email channels to drive sales, not providing an optimised mobile experience and not having a fast-performing website in place all became severe roadblocks," as consumer behaviour changed rapidly and in unpredictable ways.

Sue Goble, chief customer success officer at Sage, says her role as a digital transformation leader enabled her to advise the company to invest in "the end-to-end customer experience, through new ways of working, more efficient processes and improved technology".

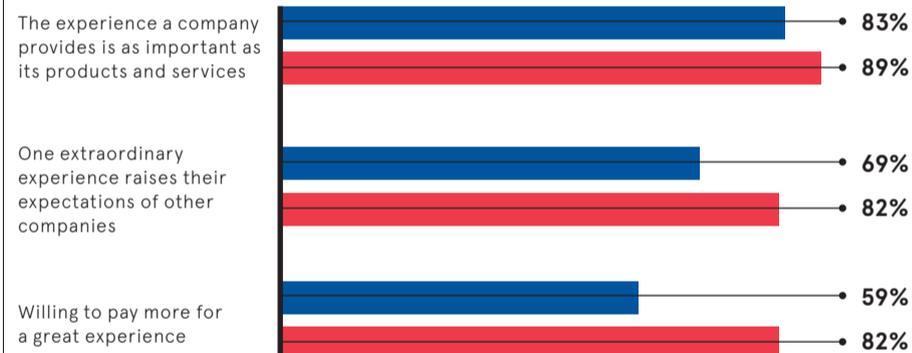
When the pandemic started to change offline life in March, the business could react quickly. "We launched a digital coronavirus hub, full of straightforward advice on a range of subjects, including the Job Retention Scheme and government funding," she says. "Almost 500,000 customers attended COVID-19 webinars in March, April and May."



Bim/Getty Images

GLOBAL SURVEY OF CONSUMERS AND BUSINESS BUYERS

● Consumers ● Business buyers



Salesforce 2019

With more than two million customers in 23 countries around the world, the webinars were valuable in strengthening the relationship with almost a quarter of the firm's clients, by providing advice and a sense of community during an unprecedented time.

But change doesn't happen overnight and leaders should view the transition to a customer-led culture as a journey rather than a quick fix, according to Kalcher.

As a digital transformation leader, the CCO has to get buy-in from the rest of the business to centre the customer experience at the heart of company change. "It is important to

involve the internal teams in defining the future vision, while at the same time create systems, platforms and ways of working that facilitate the transformation and help us get closer to customers," says Kalcher.

The CCO is asking colleagues to work in a new way and that can be disconcerting. "I've seen it more times than I care to admit to; resistance evolves into fear, which prevents innovation and cannibalises experience. The cycle continues," says Duane Adams at Alteryx. "The trick is to not be afraid of analytics. Amid uncertainty, many organisations will shy away from making changes and seizing opportunities for growth, but there is no better time to embrace data and analytics."

Data is at the heart of a solid digital transformation; insights arising from tracking customer needs and behaviour are essential information for a business adapting to the digital age. Perspicacious use of this vital knowledge fuels the rise of the CCO role, which is now clearly emerging as a key digital transformation leader in the C-suite. ●

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The task of the CCO is to ensure customer feedback is not only sought after and heard, but also actioned upon

‘Despite the ubiquity of IT and digital tech, the industry is not representative of society as a whole’

As the chartered institute responsible for professional standards in IT, BCS has a responsibility to drive the continuous process of professionalisation and it is time to renew our focus on standards and accreditation. We are committed to creating workforce cultures and practices fit for industries of the future.

There are further challenges to career progression around race and ethnicity that the industry often fails to understand and acknowledge. Only 8.5 per cent of senior tech leaders were from an ethnic minority background, according to a 2018 report by Inclusive Boards. The 2020 Parker Review found that 59 per cent of firms still had an all-white board.

We must address these shortcomings when looking to improve ethnic diversity within the industry. This needs to start with our pipeline: the new entrants. The Equality and Human Rights Commission’s (EHRC) 2019 inquiry into racial harassment at British universities revealed that 24 per cent of ethnic minority students experience racial harassment on campus. Yet two-thirds had not reported the incident.

Also the Higher Education Statistics Agency reported less than 1 per cent of the professors employed at UK universities are black and few British universities employ more than one or two black professors.

Steps are being taken to address this. Former universities minister Chris Skidmore underlined the important role of strategic leadership in his letter to the Committee of University Chairs, encouraging them to take proactive steps to work with university leaders to tackle the issues outlined in the EHRC report.

As an industry we must seek out opportunities to remove harassment and discrimination from professional practice, for the benefit of our own workplace culture and for everyone who depends on world-class IT services led by diverse teams.

This is particularly the case in areas such as artificial intelligence where we know that bias and lack of diversity within the teams creating machine learning can have real consequences. Non-diverse teams may be more likely to follow practices that inadvertently hard-wire bias into new products or services.

In its 2012 review of professionalism in healthcare, the Health and

Care Professions Council (HCPC) pointed to the importance of regulations and codes of conduct, while noting professionalism is a fluid construct, informed by the experience and role modelling of those involved; rules are made, used, reviewed and remade over time.

Despite the ubiquity of IT and digital technology, the industry is not representative of society as a whole, and so many people’s expertise and experiences are failing to influence the development of professional standards and the future of the industry.

Definitions and standards of professionalism need continuous work to match the realities of our complex and evolving society.

The HCPC’s report claims: “Professions which are newly ‘professionalised’ may find it harder to gain support and recognition than more established ones.” This is the case for many areas in IT, however I see the evolving nature of our industry as one of our strengths; we can build inclusion, ethical inquiry and impact assessment into the evolving standards of IT professionalism as we develop. Professionalism is human centred, context specific and driven by dynamic and sound judgment as well as a technical skillset.

As BCS president, I am keen to make a positive impact on the institution as well as the wider world of IT and computing, and fully support our renewed focus on promoting professionalism throughout the IT industry. This will ensure inclusive practices, ethical inquiry and impact assessment are effectively built into our accreditation and standards. ●



Rebecca George
President
BCS, The Chartered Institute for IT



Driving transformation in the telco sector

Faced with disruption from numerous angles, telcos are under great pressure to transform, but with most change programmes failing, they need to approach transformation the right way

The telecoms industry is in a period of significant transition. Disrupted by digital native companies from across the media, internet and communications sphere, telecoms firms’ voice, data and messaging services are under threat. Also they must transform their operations and business models to keep up with fast-changing customer expectations.

Challenges facing the industry have driven consolidation and convergence of services, but when mobile telcos scoop up fixed telecoms operators or vice versa, it only adds to the silos and complexities in their legacy IT systems that inhibit them from innovating at speed.

The business side of telcos is eager to create a more seamless customer experience, but this requires a firm strategy for transforming not just all IT applications, but also people, processes and ways of working.

Transformation, however, is not easy. It’s something that by definition must involve most of the company’s workforce, which in a telco means impacting the day-to-day work of thousands of people over several years.

Some companies take a piecemeal approach, upgrading bit by bit over a

longer journey, while others do a full replacement of all the core IT and customer-facing systems in a shorter, but more disruptive, time period. Either way, the odds are against any transformation programme from the beginning.

“Doing any big BSS [business support system], OSS [operations support system] or digital transformation is incredibly hard,” says Peter McMenemy, managing partner at Analysys Mason Germany and formerly managing director of Alolio&Konrad, a telecoms consultancy recently acquired by Analysys Mason.

“The vast majority of them go wrong, significantly over budget, take years longer than initially envisaged and most don’t even deliver the benefits expected. Thankfully, there is also a lot you can do to really help these programmes along and get them back on track.”

Analysys Mason has been working with telecoms companies since 1985, supporting them through every phase of innovation. In the last decade, it has supported many of its telco customers to define the right strategy for their transformation, before assisting them to set themselves up to run a successful programme from the outset.

Crucially, Analysys Mason helps its customers negotiate outcomes-based contracts with the large external software vendors and system integration partners, rather than allowing them to bill based on a traditional time and materials and software licensing basis, which often leaves them all pulling in different directions.

Software vendors, naturally, want to sell as much software and development days as possible, while systems integrators aren’t motivated to get the job done on time when they are getting paid by the day.

“Guiding customers through the journey of working with software vendors and systems integrators is what

we have proven to be very successful at,” says McMenemy. “Because we’ve been supporting transformation programmes for so long, we see where the mistakes are made and we understand the levers the telco operators have to pull to make this successful. When going into any transformation of this complexity, cost and duration, you really need to line up everyone behind the same outcome.”

Once everybody is aligned and pushing in the same direction, it’s then important to ensure people are at the heart of the transformation. Replacing IT systems in itself does not transform a business and overlooking the people element is a common error. Another familiar mistake that Analysys Mason often finds is the habit of constantly building new applications, albeit of great value to the business, but failing to simplify.

“Sometimes we see operators with 1,000 applications in their daily business-as-usual operations. That’s a phenomenal number,” says McMenemy. “We’ll often ask how many applications have you taken out? And the answer is normally zero.”

“It’s important we get telcos to think about their simplification agenda. Imagine the capacity you can free up to focus on innovation when you only have to support 100, rather than 1,000, applications. Simplification allows you to go faster. Speed of execution and time to market are critical to telcos, and simplification is key to driving those goals.”

For more information please visit [analysismason.com](https://www.analysismason.com)



“Telcos require a firm strategy for transforming not just all IT applications, but also people, processes and ways of working”

Q&A

Successful digital transformation requires a growth mindset

Frances van Spijkeren, Europe, Middle East and Africa head of customer success at getAbstract, outlines how a growth mindset and learning culture will be central to excelling in the digital age



Q Where does learning and development come into digital transformation?

A The human side of digital transformation is crucial. All change management starts with people and the skills needed to evolve. It's not just about equipping organisations to deal with digital transformation, but also about taking advantage of the huge opportunities it presents. That's why companies often involve us in programmes to help fuel a growth mindset and support human learning and skills, so people can embrace digital transformation rather than be frightened or intimidated by it. One major consultancy company we have worked with, for example, built a very strong campaign around equipping their whole organisation for a digital environment. The company realised that not all employees had to become digital experts or specialists, but everyone needed a basic understanding of digital tools to benefit from them. We were able to support this campaign to ensure all employees felt equipped. Developing the necessary soft skills together helped create a universal level of digital competence.

Q How have organisations with a growth mindset benefited during the coronavirus pandemic lockdown environments they were forced into?

A Those companies that had invested in learning programmes around digital transformation and growth mindset were better prepared for the sudden shift to remote working in response to the pandemic. They are seeing huge uptake for these programmes now because there is a specific need for them. Organisations that didn't ramp up their efforts in this area are now racing to develop something quickly. They're at a disadvantage compared to those that saw the opportunity sooner and will continue to be at a disadvantage until they catch up. This is a long-term shift. A survey we conducted recently found nearly half of employees want to work from home more frequently after offices reopen.

Q How can companies build the right culture to accelerate digital transformation?

A In a business landscape increasingly shaped by technology, the



Company culture has to be ready to change, ready to seize new opportunities and ready to adapt quickly

way we work is constantly changing. Organisations need to build a culture where they retain all the values that make them unique, while also evolving the business to serve customers in the digital age. Culture has to be ready to change, ready to seize new opportunities and ready to adapt quickly, based on a solid foundation of knowledge and insight. Agility and fast decision-making is so important in this environment, but they're only possible if you have access to the right information.

Q What is your advice to business leaders on how they can implement such a set-up?

A Leadership plays a massive role in organisational culture,

by creating a trickle-down effect for change. Culture can start and develop in many places, but ultimately you need a shared understanding and vision within an organisation. Business leaders should be the communication catalysts for how the company views change and embraces a growth mindset. We know the skills that are important in organisations today will not be the skills needed in ten years, possibly even in one year. That means it no longer makes sense to recruit for specific skills. Instead, companies need to find people who have a growth mindset and work with current employees to encourage that mindset. It falls to the leadership, whether that's top-level executives or mid-level management, to create time and space for employees to develop new skills alongside their day-to-day job and in the flow of work.

Q What are the topics people are most interested in learning about?

A Looking at our most-read content, as well as requests from key learning and development professionals, the topics that are really gaining traction are those in the areas of agility and resilience. It's less about hard management skills and more about what everyone can do to change their own mindset. The trickle-down effect from management is crucial, but it's not something that can be implemented as a programme. If you have equipped your employees with a growth mindset, they can take charge of their own learning and identify opportunities to develop themselves. Creating a culture in which leaders give employees the trust, responsibility and authority to act on the learning opportunities they identify will create the agility to accelerate their decision-making.

Q How does getAbstract help organisations to create this kind of culture?

A To be agile, you need to take decisions quickly. To take quick decisions, you need to understand

the issue. You're never going to be able to have access to everything, but the more information you have to base your decision on, and the faster you can access that information, the quicker you're going to be able to move forward. getAbstract provides that rapid access to relevant information and insights. With business book summaries you can read in less than ten minutes, you can very quickly gain a solid understanding of the issues that are currently important to you and your business. getAbstract is a tool that powers the growth mindset.

Q What is the future of learning and its role in enabling successful digital transformation?

A Given the rapid pace of change, how can an organisation know what the most important topics will be in their future? Rather than trying to anticipate the topics they need their employees to learn about, it's far more effective for organisations to encourage curiosity and self-discovery. Creating a culture of curiosity will help to equip employees to deal with any challenges in the best possible way. And because digital transformation is ongoing, learning needs to be consistently available to everyone. It is important to recognise that face-to-face learning will continue to play a role. Training courses for high-potential candidates, which require registration six months in advance, should not be the only available option. It's far more impactful to have learning tools available in the flow of work, in an accessible, easily digestible and immediately applicable format.

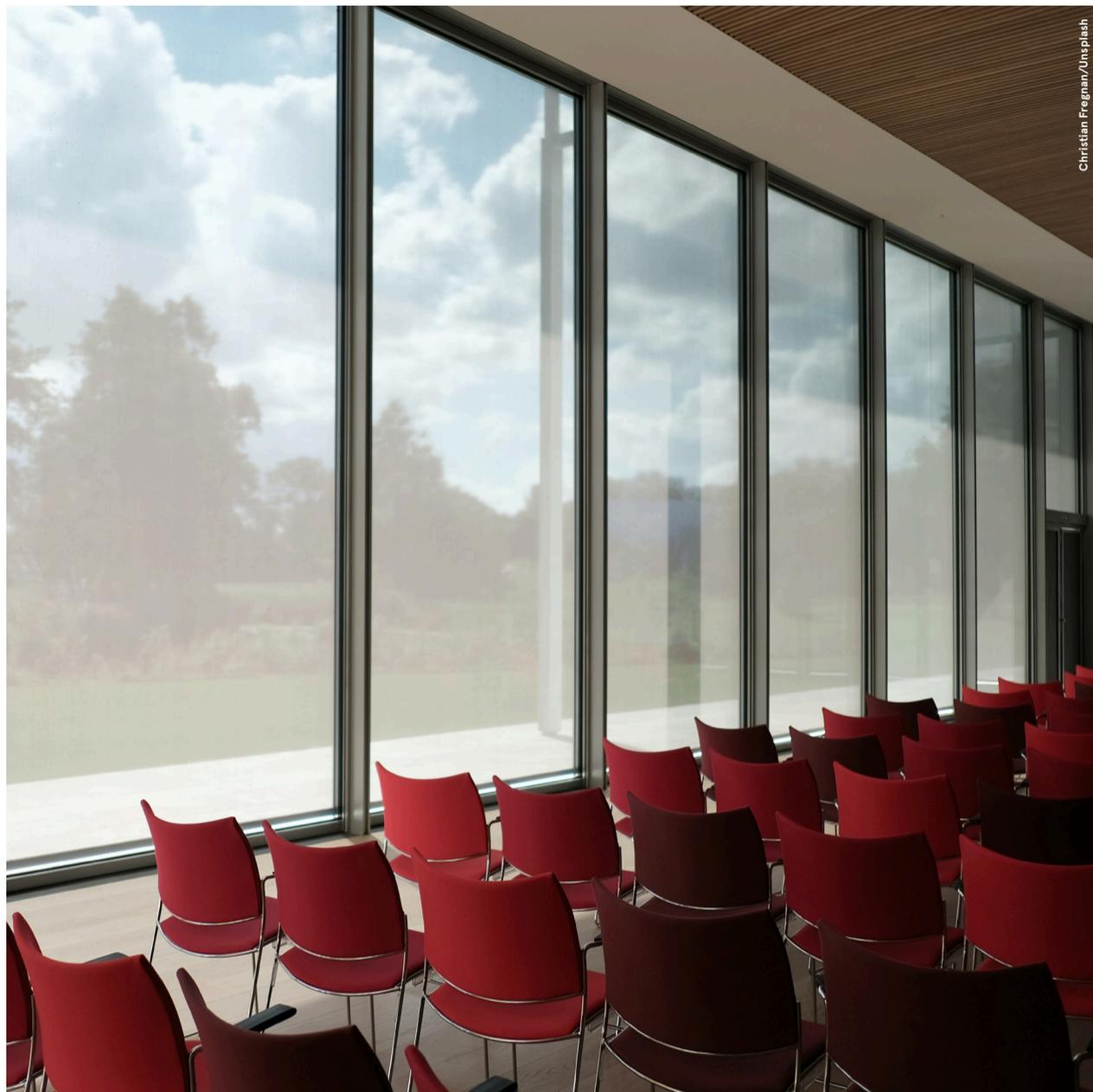
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04	Work Together Anywhere	Lisette Sutherland and Kirsten Janene-Nelson	John Wiley & Sons, Inc.
05	Manage Your Day-to-Day	Jocelyn K. Glei and Scott Belsky	Amazon Publishing
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10	Leading Lean	Jean Dahl	O'Reilly Media

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Christian Fregnan/Unsplash

and TV shows to life through immersive experiences.

“We have gone from being a rapidly growing revenue company, to being a no-revenue company. The term still gives me whiplash,” says chief executive Max Alexander.

The company’s lockdown solution has been Secret Sofa, turning cult films like *Romeo and Juliet* and *Ghostbusters* into a Zoom/House Party-type experience complete with costumes, interactive comments, suggested food, drink and dance moves, plus an after-party.

The initiative so far has been marvelous, says Alexander, even if it has not solved the company’s COVID-19-induced revenue issues.

“We sell hundreds and thousands of tickets to our live shows costing up to £100 each. We don’t have a show on now so we aren’t selling any tickets and we don’t know when we’ll be able to put a show on again,” he says.

“To make money now, we would have to attract millions of people to our Zoom parties, which are priced at up to £10 a ticket. We haven’t made any money, but it was worth doing. They are not economic substitutes.”

Revenue models have been a painpoint for companies getting to grips with digital transformation and virtual events, says Jon Strutt, content marketing strategist at virtual networking startup Brella, which has fast become a source of expert advice.

For all their challenges, virtual events can offer many benefits and be lucrative, he believes, but require a huge mindset shift.

“In physical events, there are a lot of costs, like catering, security and venue hire, which is why ticket prices are so high. For a big conference, you might need to sell 100 or more sponsorships just to generate some profit,” he explains.

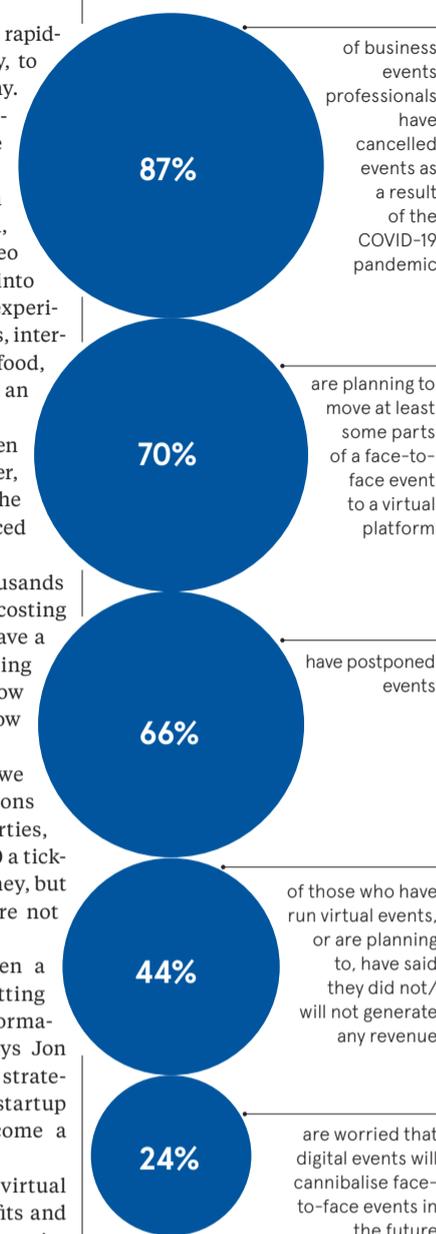
“For virtual events, you could sell a quarter of that at a lower price and make more profit because your costs are far lower.”

Brella actually allows event organisers to monetise networking by incorporating it into their sponsorship packages. The digital nature of virtual events also offers greater detail and transparency regarding return on sponsor investment.

“In a virtual event, you know how many people attended your ‘booth’, how many people watched the livestream and you can track clicks to your website, which is all value information,” says Strutt.

Maintaining audience engagement is something both Scheckner and Alexander call out as another challenge of online events. However, it’s what Brella aims to solve, with an algorithm that matches attendees based on topic interests and intent, to enable more organised and meaningful networking among thousands of attendees. “Having that audience interaction is the thing you need to make a virtual event,” says Strutt.

Virtual events startups like Brella have been on the rise as they are uniquely positioned to capitalise on



PCMA 2020

EVENTS

Why virtual events struggle with monetisation and engagement

Due to the coronavirus, the events industry was forced to adopt a virtual model basically overnight. While some companies have taken the shift in their stride, what the future holds for the sector remains uncertain

MaryLou Costa

The popular word you hear everywhere is “pivot”, says Matt Scheckner, chief executive of Advertising Week. And pivot he and his team have, after just staging their third annual Japan and Asia-Pacific conference completely as a virtual event.

Stillwell Partners, the event’s holding company, is one of a countless number of organisations that have had digital transformation thrust upon them, with the coronavirus outbreak rendering in-person events impossible for now.

With the UK events industry forecast to lose up to £58 billion in 2020, according to VisitBritain, shifting business models towards virtual events has been a necessity.

Yet for companies like Stillwell, early moves to diversify customer experience digitally have not only cushioned the blow, but paved the way for a virtual model.

“We actually started to pivot our business years ago,” says Scheckner. “That doesn’t mean we are happy about what’s going on. But it has moved some things that were on the back burner and put them on the front burner.”

Scheckner is referring to the digital tools that complement Stillwell’s core events business, such as its AWLearn professional development platform, AW360 thought leadership content portal and Great Minds podcast, which he felt very strongly about developing prior to the pandemic.

“Our goals of entertaining, educating and enlightening people all stay the same even if the medium is different,” he notes. “And that’s how we’re measured, on whether we create stuff that people want to engage with.”

Translating those goals from physical to virtual events is challenging creatively, technically and financially. Monetising virtual events has been a conundrum for Secret Cinema, which has built its brand on bringing famous films

the digital transformation unfolding within the sector and to work with traditional events companies on adapting as the trend continues.

Strutt, Scheckner and Alexander are unanimous that standalone virtual events are a COVID-19 by-product and physical events will return, albeit with distancing-friendly formats and parallel online components.

“There’s no way in which virtual events are going to be a substitute for Secret Cinema’s congregational storytelling. But I do see us running more virtual events in parallel,” says Alexander.

“Our hope is that in three years from now, we look upon this as a time when the Google of immersive theatre was being born. With the right title and audience, you could really set fire to a production. But we’re nowhere near there yet.”

The new role of digital platforms in our lives means a virtual component will be a must-have in the new events landscape, even with a renewed desire to connect physically.

“I do think hybrid events will be the next thing to help event organisers reach new audiences. A virtual component to a live event, which previously was thought of as new and hip, will now be essential to compete,” Brella’s Strutt concludes. ●

A CATALYST FOR CHANGE

The COVID-19 pandemic has rattled digital strategies and accelerated a transition to remote working and collaboration for the majority of companies around the world. But, as organisations change tech spending – or pause it altogether – what is the long-term impact on digital transformation? Is the crisis simply forcing companies to make a short-term IT fix, or actually kickstarting longer-term transformation initiatives?

URGENT NEED FOR CHANGE

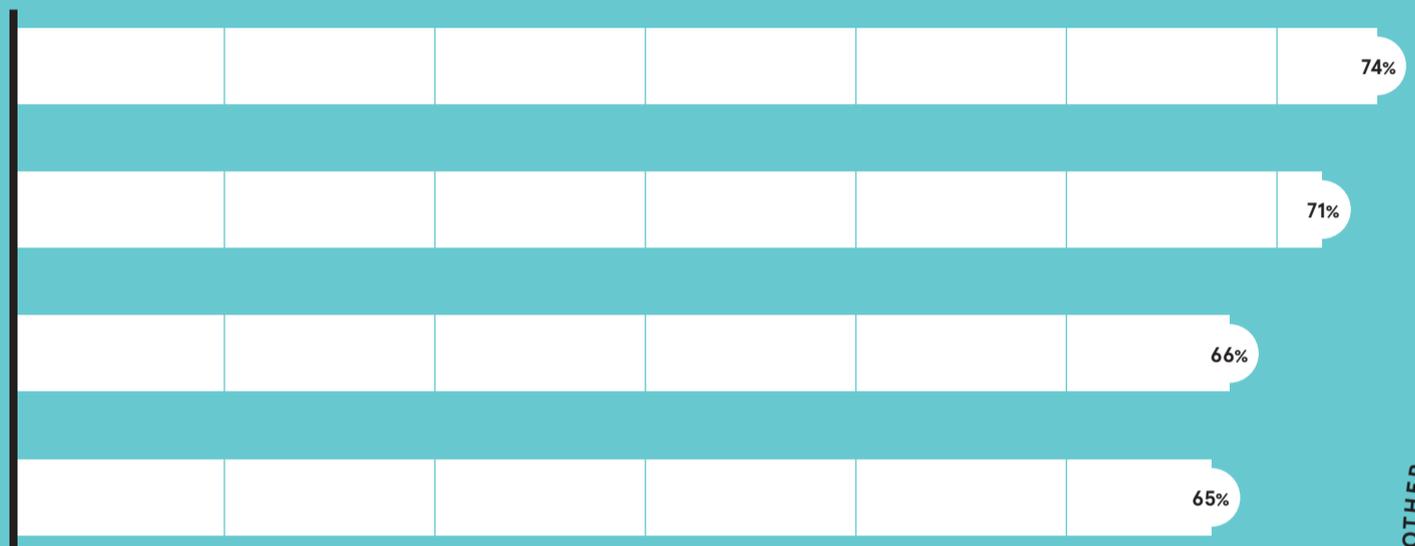
Global survey of IT professionals

Digital transformation projects, that would typically take more than a year to be approved, have been signed off in a matter of weeks

Digital transformation projects have been implemented within weeks rather than the months or years it would have taken before the pandemic

The pandemic has exposed weaknesses in digital strategy, driving an urgent need to push through initiatives which were once a part of multi-year digital transformation programme

We have already implemented digital transformation projects during the pandemic that were previously dismissed as unnecessary



AppDynamics 2020

81%

of IT professionals believe COVID-19 has created the biggest technology pressure for their organisation that they have ever experienced

AppDynamics 2020

59%

admit that they are firefighting and introducing short-term fixes to technology problems

76%

express concern about the longer-term impact of digital transformation initiatives they have had to rush through during the COVID-19 crisis

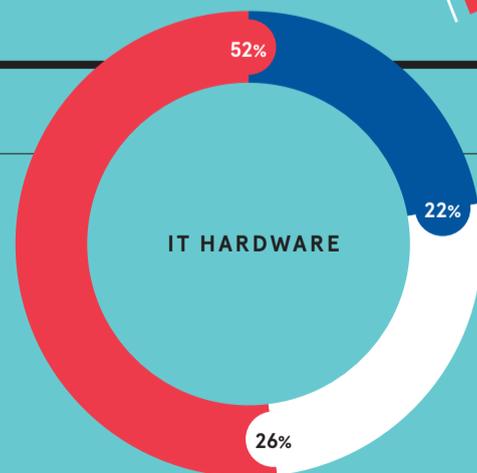
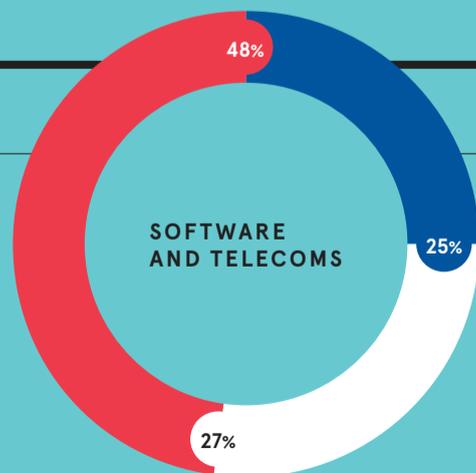


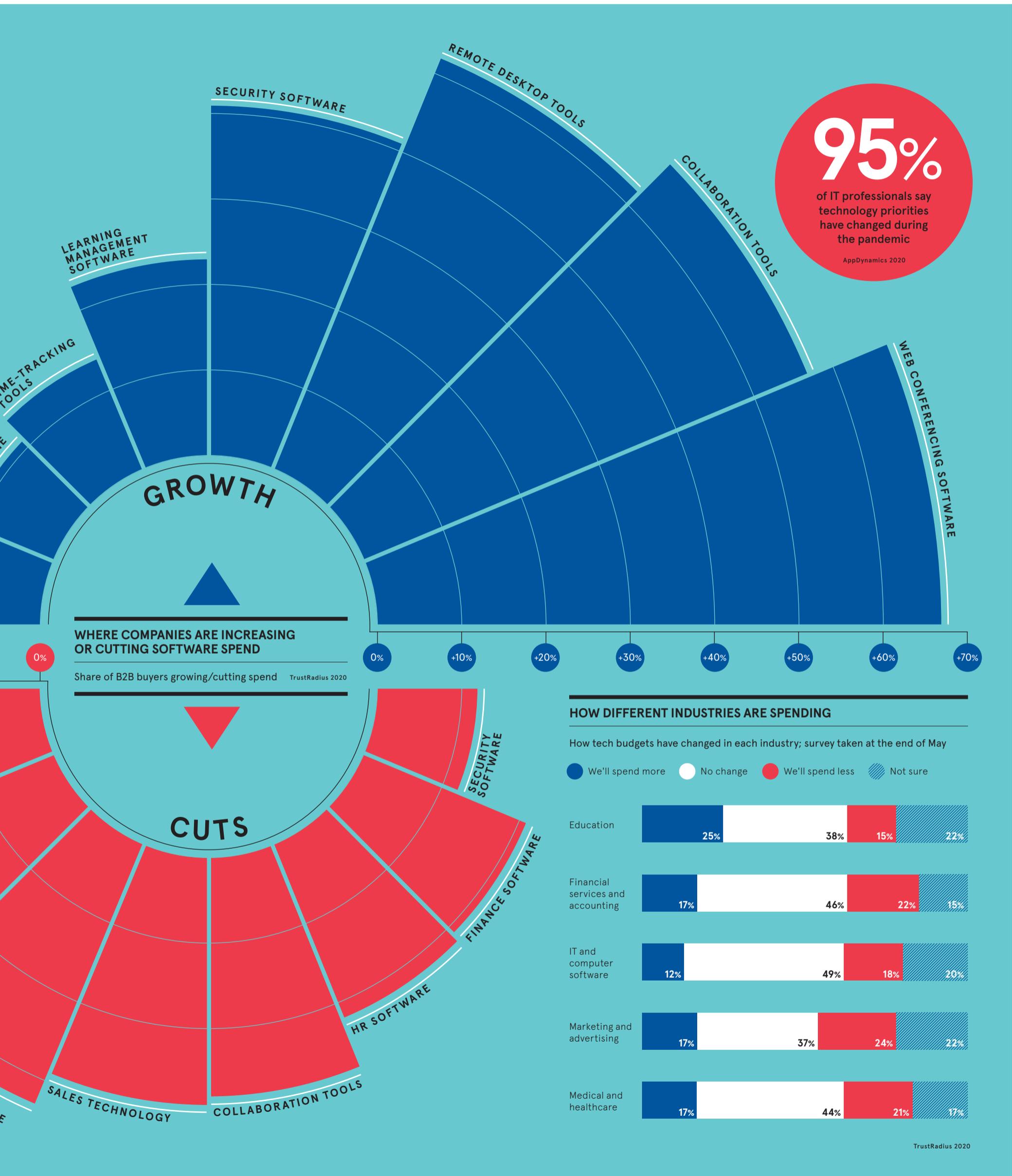
TECHNOLOGY BUDGET CHANGES AS A RESULT OF COVID-19

Percentage of global B2B decision-makers surveyed in late-April who have already made the following changes

- Increased
- No change
- Decreased

McKinsey 2020





95%
of IT professionals say technology priorities have changed during the pandemic
AppDynamics 2020

GROWTH

WHERE COMPANIES ARE INCREASING OR CUTTING SOFTWARE SPEND

Share of B2B buyers growing/cutting spend TrustRadius 2020

CUTS

HOW DIFFERENT INDUSTRIES ARE SPENDING

How tech budgets have changed in each industry; survey taken at the end of May

● We'll spend more ● No change ● We'll spend less ● Not sure

Industry	We'll spend more	No change	We'll spend less	Not sure
Education	25%	38%	15%	22%
Financial services and accounting	17%	46%	22%	15%
IT and computer software	12%	49%	18%	20%
Marketing and advertising	17%	37%	24%	22%
Medical and healthcare	17%	44%	21%	17%

CYBERSECURITY

Five ways to stop phishing in its tracks



Nelen/Shutterstock

With rapid remote-working rollouts being implemented across industries, enterprises have never been so susceptible to cyberattacks, with phishing among the most common threats. Here are five ways organisations can keep themselves safe in the coronavirus era

Kate O'Flaherty

1 Keep up to date with changing risks

The coronavirus crisis has resulted in many office employees working from home and with this has come a surge in phishing attacks. As remote working became the norm in April, Google's Gmail blocked 18 million COVID-19-related malware and phishing emails every day.

With phishing attacks on the rise, it's important businesses are up to date with the threats they face. Recent phishing attempts are often COVID-19 themed, with threat actors impersonating government

organisations such as the World Health Organization to solicit fraudulent donations or distribute malware.

One type of phishing, called spear phishing, sees attackers target users via an email from a trusted sender to lure them in. This type of phishing attack often targets remote workers, with hackers impersonating an organisation's admin or human resources team to encourage users to click on a malicious link or transfer money.

"To help prevent these kinds of attacks, organisations need to set up email authentication policies as a de facto security measure for their domain," says Andy Kennedy, engineer at Google Cloud.

2 Train remote workers to spot phishing attempts

Employees are a firm's first line of defence from phishing attacks. They need to understand why phishing is a threat, why they specifically might be targeted, what a phishing attempt looks like and what to do if they see or click on a suspicious link, says Amanda Finch, chief executive of the Chartered Institute of Information Security

This requires training. "The more comprehensive the better," says Finch. For instance, instead of simply emailing advice, organisations should share examples of phishing emails that show employees what to look for and stage mock attacks to demonstrate how easy it is to be fooled.

Cybersecurity training is essential, agrees Professor Kevin Curran, Institute of Electrical and Electronics Engineers senior member and professor of cybersecurity at Ulster University. "There has recently been a new movement where security teams send phishing emails containing fake malware to their employees, which when activated simply leads users to a site highlighting their mistake and educating them on the dangers," he says.

3 Use two-factor authentication and strong passwords

Cybercriminals often make phishing attempts to steal users' credentials and access sensitive company data. It's therefore a good idea to implement two-factor authentication as an extra layer of protection, says Carl Wearn, head of e-crime at Mimecast. "This should be considered by every security leader."

A solid extra layer of protection is provided by security keys, such as the Yubico YubiKey, which are proven to prevent phishing, says Andrew Shikar, executive director of the FIDO (Fast IDentity Online) Alliance. He cites the example of software giant Google, whose 85,000

employees use security keys to access online services. "Not one has been successfully phished," he says.

In addition, good password hygiene is integral to help stop phishing attacks. "Ensure employees don't mix personal and work credentials, and use a good password manager to generate sufficiently complex passwords," says Harman Singh, managing consultant at Defendza.

At the same time, users should be discouraged from using the same password across multiple services. If one password is revealed in a data breach, this will allow an attacker to gain access to multiple accounts.

4 Assess and improve technology controls

While training employees is crucial, technology can help to stop remote workers falling victim to phishing attacks. This is especially important when one mistake could lead to the compromise of entire business systems and expose sensitive information. "If technological controls are weak, an employee clicking on a legitimate-looking email could

lead to a compromise of the underlying system," says Defendza's Singh. Therefore, as well as examining admin rights,

securing systems and implementing network segmentation, Singh recommends enhancing email security with technical controls. "These can work together in a layered structure to ensure senders' legitimacy and make sure email isn't spoofed," he says.

In addition, keep anti-virus and anti-malware software up to date, says Ulster University's Curran. "Some phishing emails can be detected by anti-virus tools," he says. "However, it is important teams inform management or the IT department when they receive a suspicious email. This allows IT teams to identify how an email managed to get through their system and consider updating their software."

5 Create the right culture

It's true that employees are a firm's first line of defence, but at the same time it's important not to blame users if a phishing attack does get through. "Provide users with an easy way of reporting these attacks," says Kevin Breen, director of cyberthreat research at Immersive Labs.

Javvad Malik, security awareness advocate at KnowBe4, agrees. "It is vital employees are given easy and convenient ways to report issues," he says. This could be as simple as a button to allow employees to

easily and quickly report a suspected phishing email.

But if remote workers are tricked into opening a malicious email, firms should be careful not to create a culture where they do not report it for fear of reprisal. "If employees can spot and report phishing attempts, it can actually help you when you might have missed something otherwise," says Breen. "It's not all about the technical. While people can be a weakness, they can also be your strongest asset."

The State of Email Security 2020

Download our report to gain valuable insight from global IT decision makers underscored by Mimecast Threat Center research.

mimecast.com/state-of-email-security

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OPINION

‘Looking back at past results to predict future outcomes is no longer going to work’

Talking to many leaders over the recent months of lockdown, I realise that this extraordinary situation has taken many on a digital transformation crash course. However, it can't just mean we have all mastered Zoom or Microsoft Teams, or have carved out a space in our homes we now call the office, or that in the absence of anywhere to go out in the evening our work-life “balance” has become constant work.

No, these things will change, but digital leaders understand that change, uncertainty and pivoting businesses are the new normal for everyone, and three-year plans and looking back at past results to predict future outcomes are no longer going to work.

To use the analogy of a car journey, it's about less time looking in the rear-view mirror to understand where we have been and more time cleaning the windscreen and looking forward to the next bend, knowing the road behind is no predictor of the future and the future is uncertain.

Now this new uncertainty we all face is not a comfortable condition to be running a business in, but it is not a new, digital-era phenomenon. Three centuries ago, French Enlightenment philosopher Voltaire said: “Doubt is not a pleasant condition, but certainty is absurd.”

So how do digital leaders deal with this new normal? I think there are three things to think about.

Firstly, we must reinvigorate the people side of business. In a digital age, people are your greatest asset and the largest overhead in many businesses. Internally, rethink your hiring strategy to give yourself the ability to spin up your team and turn it back down fast, and to vary its skills set. Think more about collaboration with others to deliver innovation; something we have seen happening extensively in the fight against the coronavirus.

Secondly, bring data into the heart of your decision-making. Try and use data from your business and from the internet to give you insight. There are countless tools out there that will help you visualise these numbers into dashboards

and once mastered, with a little trial and error, they will help you reduce the anecdotes and increase the data which currently informs your decision-making.

Finally, find your empathy. As we have peered into each other's homes through our laptop screens over the past three months, we have realised that the homogeneity of the office environment masks our colleagues' very varied personal lives and circumstances outside work. Let's use that insight to help understand our teams' diversity and unique experiences.

For example, I would hope most leaders by now no longer hold the view that home working is tantamount to a day off. I can report many leaders who track this data, report seeing absence from work is down and productivity in their workforce is up in this new normal.

I think this all means less control and command from the centre and a bigger focus on communication. We will see the decentralisation of decision-making and the promotion of localised initiative of the “ask forgiveness, not permission” variety. As leaders we must embrace this new culture and reward it with trust.

So good luck. None of this is easy, but if you can focus all your observation forward, rely much less on the past for guidance, and create a culture of experimentation and progress through iteration, you may be better placed to embrace the uncertainty, because as Voltaire said some 300 years ago, to be certain is absurd. ●



Robin Knowles
Founder and chief executive
Digital Leaders

Tech leaders will take all in the age of serverless

Companies claiming a position of tech leadership in their respective sector will dominate their competitors in the next decade and beyond, powered by serverless platforms

Perpetrators of digital disruption thus far mostly share the markings of Silicon Valley tech startups that have boldly revolutionised entire industries. Amazon is now synonymous with retail. Spotify has transformed the music industry, Netflix the entertainment space. Google and Facebook have upended the media and advertising sectors. This first phase of digital transformation thoroughly shook the business world.

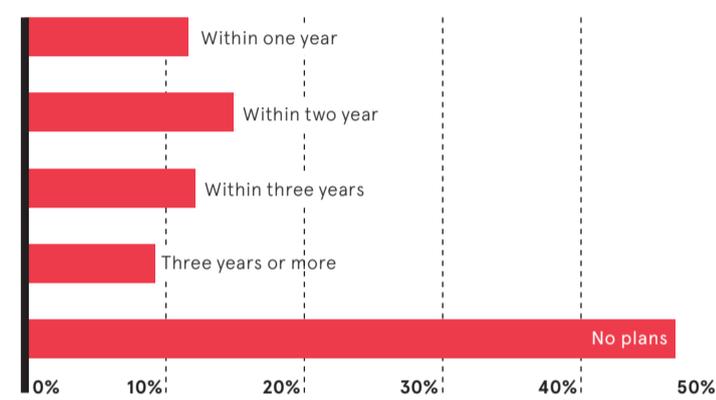
While companies in regulated industries with higher barriers to entry have emerged from this period relatively unscathed – the major banks still dominate the market, for example – the second stage of digital transformation has them firmly in its sights. In this phase, disruption will come less from startups and more from established brands.

“State-of-the-art digital technologies and agile methodologies are no longer exclusive to tech startups, which means the industries that were better guarded from outside disruption will soon discover one of their peers is leading digital disruption in their market,” says Fabrice Bernhard, co-founder and group chief technology officer of Theodo, a developer of web, mobile and software applications. “Software is going to be the differentiator everywhere and there will be a few players in each sector that master the whole thing.

“Phase one was completely new players, leveraging their different culture to disrupt industries where it was reasonably easy to get in. Phase two will see established companies, which have

“**The leapfrogging capabilities provided by serverless, offering the building blocks of the best tech platforms as a service, make it faster, cheaper and easier for teams to create scalable applications**”

WHEN DO YOU EXPECT YOUR ORGANISATION WILL ADOPT SERVERLESS?



O'Reilly serverless survey 2019

learnt to act like startups with the same agility and culture, disrupt competitors. That'll be bloody because with software it is mostly winner takes all.”

BlackRock is a prime example. Merely one in a crowd of asset managers in 2000, it is now the world's largest money manager. This position of leadership has been reached through investment in technology, whereby even its competitors are queuing up to use its Aladdin platform. Goldman Sachs, meanwhile, has been building a new transaction banking platform to not just enter but redefine the \$250-billion cash management industry.

“They plan to use a cloud-native strategy to build it in two years, compared to the ten years it took competitors to build the clunky outdated incumbents,” says Bernhard. “If I were the CEO of a bank, that is what would scare me the most.

“As highlighted in the study by Michael E. Raynor and Mumtaz Ahmed, companies that outperform in the long term put better before cheaper and revenue before costs. In the digital age this will require better customer experiences through digital products. Technology leadership should be a priority for every ambitious company.”

Achieving that, however, is easier said than done. Building the high-quality, scalable digital products customers have come to expect has traditionally required large teams of very strong engineers. The talent capable and willing to take on the challenge of steering a large organisation towards technology leadership is still rare. And legacy is a major inhibitor, not only in the tech infrastructure of incumbents, but also in their mindsets.

Fortunately, powerful technology is becoming a lot more accessible thanks to the latest cloud-native innovation: serverless platforms from the likes of Amazon, Microsoft and Google. The leapfrogging capabilities provided by serverless, offering the building blocks of the best tech platforms as a service, make it faster, cheaper and easier for teams to create scalable applications.

“For the last ten years, Theodo has been leveraging the best of startups' tech and methodology to deliver applications for our clients in weeks, not months,” says Bernhard. “Serverless accelerates this trend and will be as game-changing in the next decade as cloud was in the one just gone. Our full-stack developers and agile experts have jumped on this opportunity and been among the first to deliver serverless projects at large organisations.

“To help our clients win the tech race, we not only offer companies the expertise to build great applications, but we also inject the culture needed for them to attract and retain tech talent. With this talent and serverless platforms, any business can now build what only the best-funded startups could afford to build just a few years ago.”

For more information please visit theodo.co.uk



Digital transformation starts with changing how you sell

Restructuring how you understand and respond to customer needs creates business growth and alignment, says **Geoff Webb**, vice president of strategy at PROS

What is the secret to successful digital transformation? It begins with changing how you sell. That's the only way to evolve your organisation so it drives meaningful, positive change quickly enough.

Transforming your sales process so more products are accessible through digital channels is where you will gain the most value. In fact, that's what your customers are now expecting.

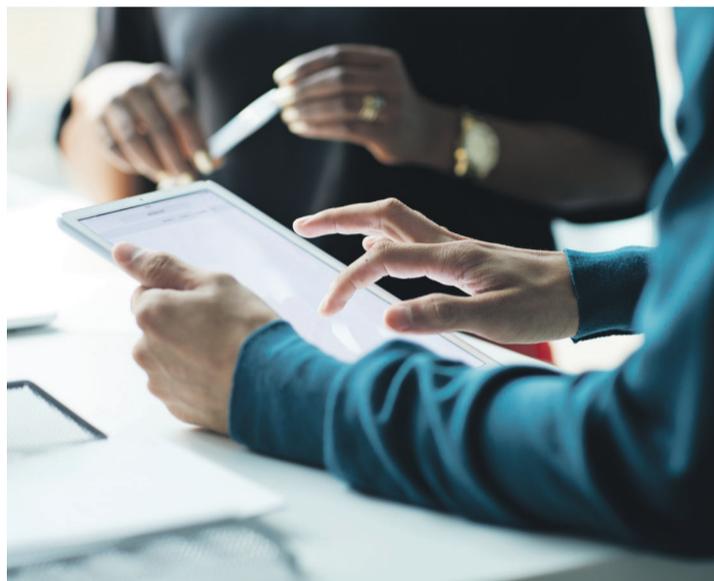
The coronavirus pandemic has skyrocketed the trend of buying goods and services online, since face-to-face interaction is limited. And there is no coming back. Businesses have no other option but to embrace the world of ecommerce and digital selling if they want to retain their customers.

The trend has sped up because neither the buyer nor the seller has a choice. You ignore your customers' behaviours at your peril. And what customers want and expect from vendors has changed, sometimes in unpredictable ways.

At the start of the lockdown, some big companies were worried that without their sales teams on the road productivity would dwindle. But the opposite has happened and that's thanks to technology, which supports this shift to online, digital selling. Those who have gone all in on tech are reaping the most significant rewards.

In recent years countless digital transformation projects have failed because brands have targeted the supposed 'easy stuff', bolting on tech to existing infrastructure, for instance. That minimal tinkering with tech doesn't generate a great deal of business value if it's not fully integrated. Ultimately, digital transformation has the most positive impact when you can meet your customers and provide them with a seamless buying experience.

“COVID-19 has unshackled businesses to commit wholeheartedly to digital transformation with a sales focus



Technology helps businesses operate faster and in a more agile and responsive way. Those who put that effort into the sales end of the organisation, where the rubber meets the road with the customer, facilitates faster transformation.

It's a virtuous circle. Customers are happier, the business grows and it achieves more effective alignment within the organisation, not least because it's easy to attract company-wide buy-in and support when it's all about making customers happier and increasing sales.

If you start with the sales end of digital transformation, you achieve organisational cohesion, as the C-suite understands that selling more and improving the bottom line marries with their strategy. They think: "That sales guy who used to be a pain seems a lot smarter because he now has answers at his fingertips."

If you apply the tech in the right way, every interaction with a customer feeds your ability to understand them better, which means you can do a better job of selling. When you begin to focus on your customers across every channel – encompassing ecommerce and your traditional sales channels, as well as via partners and resellers, and other digital selling means – there's a lot of data to process and understand. It is here that artificial intelligence (AI) is most effective and where it can deliver measurable results.

Successful businesses will excel in three areas. Firstly, the use of analytics and AI will extract insight from the

market, including customer behaviours. Secondly, those insights enable businesses to shape and personalise the right product offerings at the perfect price for an individual customer's needs. Finally, this process provides the ability to reach and engage with the customer wherever they are and whichever way they want to buy, which is now far more heavily via ecommerce and digital channels.

The most effective organisations will continue to interrogate the data and continuously refine their sales process, not merely bolt it on. Such a lack of integration tends to trigger channel conflict and mixed messages, and erodes the trust that is paramount for buyers.

COVID-19 has broken barriers and shone a light on the path ahead. It has unshackled businesses to commit wholeheartedly to digital transformation with a sales focus. Thankfully, it doesn't need to be complicated. There are straightforward incremental steps to move through this process to become a better-aligned business and ensure a prosperous future, a lot faster.

Learn more about transforming your sales process for the digital world, visit [PROS.com](https://www.pros.com)



AUTOMATION

Reputation: a key obstacle in AI deployment

Adoption levels of artificial intelligence and automation tools could be hindered by organisations' fears about reputational damage in the event of a scandal

Cath Everett

Although opinion is divided on whether the coronavirus crisis will hasten a move towards more automation, interested employers have a number of issues and challenges to address concerning artificial intelligence (AI) if they are to avoid possibly damaging their company's reputation.

On the one hand, says Jen Rodvold, head of digital ethics and tech for good at digital transformation consultancy Sopra Steria, there has already been serious acceleration in the adoption of all kinds of digital technology to enable businesses to operate during lockdown.

"As the economic picture sharpens, there'll be a continued focus on

cost-cutting measures and AI could well be part of that," she says.

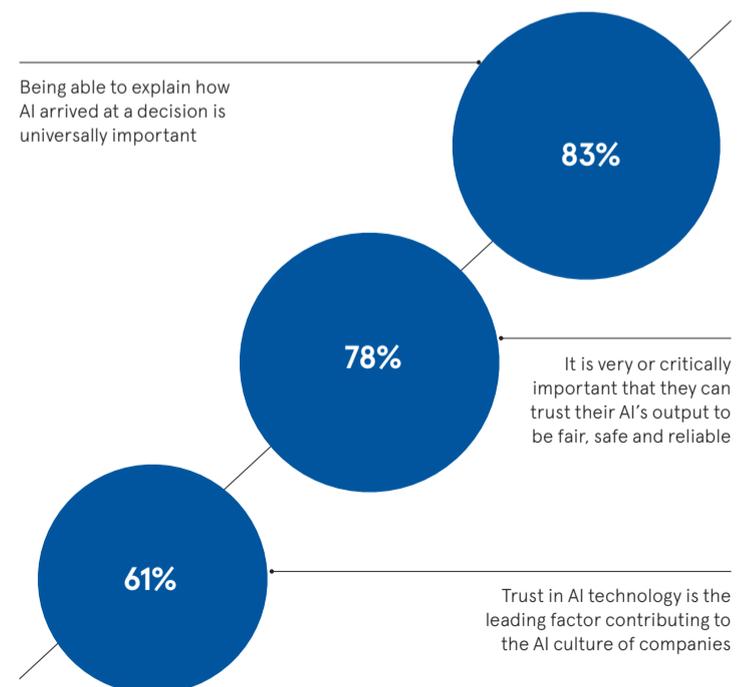
Brian Kropp, chief of human resources research at market research company Gartner, on the other hand, believes that while the crisis will not necessarily alter pre-COVID-19 adoption rates, it will change the reasons behind adoption.

"Until this year, investments were largely driven by the tight labour market and the number of qualified employees available," he says. "However, AI and automation strategies are now shifting towards reducing operational risk and improving long-term business resilience."

Use-cases include replacing employees in areas of potentially high-infection risk or in situations

TRUST AND AI ADOPTION

Global survey of technology decision-makers





where illness would result in disruption to production processes.

But there is also the danger that such technology could introduce risks of its own, particularly in terms of company reputation. As Kropp indicates: "Even before the coronavirus pandemic, Gartner predicted that the number of automation-related scandals would grow over the course of 2020 as adoption increases and deployments take place in a range of new areas."

The problem is that, although AI can be a powerful tool to support decision-making, "in cases where AI systems base assumptions on patterns of historical data, there is a danger of bias", he says.

An example of this situation was US health services provider Optum's healthcare allocation algorithm. Although subsequently amended with the help of researchers at the University of California in Berkeley, black patients initially received lower standards of care than their white counterparts as they were assigned lower risk scores.

The issue was that the system apportioned these scores based on predicted healthcare fees, but as black patients are less likely to receive targeted interventions, their care cost on average was \$1,800 less a year. While the developers had excluded race data from their algorithm in a bid to make it "racially blind", societal discrimination had not been taken into account.

In other words, even if processes are put in place to check for bias in the data in which algorithms have

been taught to look for patterns, organisations still need to be "cautious of the secondary ripple effects" that might not be immediately obvious, warns Kropp.

In addition, as AI becomes embedded in more and more interlinked decision-making processes, it will become increasingly difficult to pinpoint where the real problems actually lie or to anticipate possible consequences.

“
Using AI for decision support is less risky. It's when algorithms start making judgments that the trouble can set in

Andrew Liles, chief technology officer at interactive marketing agency Tribal Worldwide London, believes that the highest risk of experiencing AI issues occurs when organisations shift the focus away from using the software as a decision-support tool towards allowing it to make decisions without human intervention. This is particularly true of business processes that require high levels of cognitive ability and significant human interaction, such as interviewing candidates for jobs.

"If you use AI for decision support, it's about speeding up the process and making it more efficient, which is less risky. It's when algorithms start making judgments that the trouble can set in," he says.

The problem is that getting this situation wrong can have serious implications for company reputation and brand. Although awareness of such potential AI issues and challenges may be starting to grow, AI ethics is still not widely discussed or well understood among the C-suite. This means too few companies have established a common set of rules and standards upfront that employees need to apply when using such technology for decision-making.

To ensure AI is applied safely and responsibly, "it's important to take a more systematic approach to analysing the technology's up and downsides, and how it links to business strategy, objectives, culture and people", says Rodvold. "So it's not about dealing with technology in isolation; it's about anticipating and examining its possible consequences in the round and putting the right strategy and policy in place to deal with them."

Important topics to think about in this context include the impact of AI on employees, customers and wider society. Other central considerations comprise its implications in terms of equality, diversity, privacy, transparency and environmental sustainability.

But a key problem that stops many organisations from taking action, Rodvold acknowledges, is a fear that

the software is too complex to get to grips with, which leads to many senior executives simply "putting their head in the sand".

A lack of government regulation or legislation anywhere in the world in important areas, such as the transparency and so-called explainability of the assumptions on which algorithms have been built, also does not help.

But Danilo McGarry, thought leader and head of automation at investment fund and corporate services provider Alter Domus, recommends two documents as a useful starting point to help leaders understand some of the AI issues they face and how they might deal with them. These are the European Union's *Ethics Guidelines for Trustworthy AI* advisory document and the

European Commission's *White Paper on Artificial Intelligence: A European Approach to Excellence and Trust*.

"They're not enforceable, but they're also not technical and are written for C-level executives," he says. "So they're useful as a basis for writing your own policies on how to use AI in an ethical way."

Ultimately, says Rodvold, taking an ethical stance is not just about protecting company reputation from harm. It is also about "value creation".

"Establishing principles of fairness, trust and inclusiveness all create better companies and puts them in good stead for the long term. So it's about doing what's right for the organisation and its culture to sustain value," she concludes. ●

Risky recruitment

Amazon hit the headlines for all the wrong reasons in October 2018 following revelations that the artificial intelligence-based recruitment tool it had been developing secretly demonstrated bias against women.

The project had been intended to automate the sifting of job applicants' CVs by assigning them a score ranging from one to five stars. But by 2015, a year after the initiative was first launched, the Amazon team realised that candidates for technical roles were not being handled in a gender-neutral way.

The problem was the data being fed into the system, which comprised ten years' worth of CVs, reflected the tech industry's male dominance. As a result, the software taught itself to prefer male job seekers and to give women lower scores.

Although Amazon initially tried to edit the algorithm to make it respond neutrally to female-oriented terms, such as "women's" as in "women's chess club champion", there was no way to guarantee gender discrimination would not be introduced in other ways. As a result, the initiative was scrapped in early-2017. Amazon insisted the system had never been used in anger by its hiring team and so no candidates had been discriminated against in the real world.

People-centred, data-driven change in a digital world

With the need for digital transformation only accelerating during the coronavirus pandemic, it's more important than ever that companies put customer centricity at the heart of their business

Transformation has become a permanent state for businesses in the digital era, yet the sheer volume of emerging technologies and new ways of working have created confusion and disillusion in many large organisations. Baking agility into core operations enables the innovation required to remain relevant amid digital disruption, but a recent *State of Agile Report* found the biggest challenge to adopting and scaling agile programmes relates to organisational culture and persistent resistance to change.

Organisations were under pressure to transform and make use of digital long before the coronavirus outbreak, but the pandemic has accelerated demand for such services further, driven by customer expectations which continue to evolve at pace. Those who hadn't embraced remote working in the past have realised their employees can work productively from home, interact well with their colleagues and drive customer value.

Whereas transformation previously focused on cost reduction through reducing technical debt and modernising IT infrastructure, increasingly it's more about leveraging insights from data, which is achieved by making sure employees have access to it on demand and at the right time, thus improving the customer experience.

Business and IT have traditionally operated in a "build it and they will come" mode, but a historical lack of adoption and poor employee and customer experience compounded a lack of trust between them. Such a mindset has also left people behind, as trust issues coupled with constant requests to change how we work have fuelled change fatigue.

"It doesn't matter how well you build something, or how well you deploy technology, it is still people using it

and interacting with each other, albeit through ever-increasing digital channels, be that intradepartmental or with customers," says Konstantinos Ressopoulos, director of transformation at Automation Logic, a professional services consultancy helping organisations transform with cloud, automation and DevOps solutions.

"When people don't buy into the change or see reason to adapt their behaviours, it doesn't matter how good technology is or how well you automate processes. People should be at the heart of transformation, not just because they ultimately use and benefit from the technology, but also because of the peace of mind that needs to be offered to customers and employees so they can enjoy more valuable interactions. We must, therefore, design and implement a people-centric transformation experience."

To deliver meaningful outcomes through digital transformation, organisations need to invest in people and skills. Too many companies race to adopt new technologies without designing and investing in their teams to adapt to new ways of working. When adopting any new technologies, organisations should take a human-centred, data-driven approach.

Automation Logic advocates a DevOps operating model that places the customer at its core and encompasses culture, technology, processes, organisational change management and product-centric structure. Its own people-oriented culture delivers user-centred digital services for its clients. Focusing on the people and culture elements of change, underpinned by a technical DNA to support transformation, enables Automation Logic's customers and partners to build value-realising digital services.

The AL DevOps Academy helps to bridge the digital skills gap by recruiting STEM (science, technology, engineering and maths) graduates and running specialist training programmes, not just in technology but in new ways of working, enabling Automation Logic's clients to access people with the right attributes to drive their transformation. The company helps clients design and implement new digital services, but also build and embed sustainable digital capability.

Customer centricity requires every part of the business working in harmony to design and deliver a great customer experience. This means there can no longer be a divide between lines of business and tech.



A 2019 Automation Logic DevOps Academy cohort



To deliver meaningful outcomes through digital transformation, organisations need to invest in people and skills

The IT department must lead the effort and be a true partner to the other departments, such as sales, marketing and operations, delivering measurable, meaningful business outcomes together. The IT function is a value-adding enabler, reducing time to market by deploying more features faster, more frequently and with fewer errors.

"If you don't put people at the heart of digital services, it will become really difficult to scale and roll out to everyone," says Ressopoulos. "And if the digital services aren't fit for purpose then they won't get the adoption needed to deliver the expected outcomes. Placing the end-user at the centre of everything is essential. Laggards to this view are standing in the way of adding value to their business."

There are a huge number of companies that still treat IT work as a cost

centre, focusing all effort on driving efficiencies and missing out on the opportunity to unlock value through innovation, further burdening their employees with change fatigue of the worst kind. This needs to change. Companies that haven't created a strong handshake between lines of business and IT are suffering. The true believers in the relationship between business and IT, meanwhile, are delivering value fast, and that relationship and the resulting agility are fuelling their competitive advantage.

When companies put customer needs at the core of product and service design, value becomes the focal point. The medium through which they communicate to deliver it, digital or face to face, becomes irrelevant, as the shared focus is value realisation.

Businesses that adopt new, product-oriented ways of operating are better positioned to sustain change. They should organise teams around their product or service, avoid siloed projects and develop iteratively, not monolithically.

With that shift, it is important to realise that process automation is crucial to digital transformation, not just driving cost efficiencies but also enabling more intelligent decision-making. However, automating an already flawed process will not deliver value.

Organisations need to identify how to tackle and reduce waste, prioritise where to automate and visualise workflow to collaborate better across different functions and eliminate departmental silos that restrain communication and therefore hinder innovation. A culture of measuring is therefore important. Most organisations measure outputs and report on vanity metrics, but only by measuring the right KPIs and connecting them to outcomes can they support continuous improvement through prioritising value-generating work that delivers business impact.

"At Automation Logic, we realised it doesn't matter how good we make technology work for our customers, in the end it's all about empowering them, sharing knowledge and driving sustainable change so they don't need us anymore," says Ressopoulos. "By blending the tech focus with people centricity, our DevOps operating model, we help our customers change their culture and ultimately translate that into new ways of working. Putting customer centricity at the core ensures a good experience for everyone."

For more information please visit automationlogic.com



15%

of organisations employing more than 1,000 people rated their efforts at culture change as 'highly' or 'very highly' successful

CULTURE

Team bonding in the WFH era

How companies around the world are attempting remotely to recreate the social and emotional support that comes from working in a physical office

Celia Jones

In May, Twitter chief executive Jack Dorsey told his 4,000-plus global employees they had the option to work from home “forever”. It followed statements from fellow technology giants Google and Facebook that their international staff could work remotely until the end of 2020.

The Californian trendsetters aren't alone. In a recent Institute of Directors (IoD) survey, four out of ten British business leaders said their organisation had made adjustments they intend to keep post-coronavirus lockdown.

Tej Parikh, chief economist at IoD, says: “Increased working from home is the most common action directors report they will maintain for the long run, followed by a greater use of digital platforms, both for operations and services.”

But what happens to the usual efforts to boost employee morale, from office snacks to drop-in massage sessions, now that millions of people are working from home? Can they expect virtual pints and a quiz overload or should leaders invest in ensuring company culture isn't lost over patchy video calls?

It's a challenge Sir Cary Cooper, professor of organisational psychology and health at Manchester Business School, believes business leaders need to consider seriously. He says: “Group activities for bonding work groups are really important. You learn about other people and deal with them on a personal level, rather than just their roles. It's difficult to maintain this in a lockdown scenario.”

The national trauma of COVID-19 may lead to some valuable shake-ups within traditional office structures. Zoom fatigue, whereby people are drained after a day of seeing their face on screen, is real.

However, introduction to people's home environments, through the keyhole of a laptop camera, may be having a positive impact. Sir Cary says: “We're getting to know our colleagues better. We know more about

their outside roles and what's happening personally.”

Will this mean we'll have more empathy and compassion for each other? It's something Sir Cary will be keeping a close eye on. He believes the trend towards more remote and flexible working is positive, but teams still need face-to-face contact; the future of the office is a central location that supports employees' social needs. “We can Zoom, Skype or chat using social platforms, but it's not the same as speaking eyeball to eyeball or doing things jointly,” he says.

Globally, there's been a boom in recreating the after-work social experience. In Japan, at-home video boozing sessions are on the rise. Japandemic Co, a brewery in Matsuyama, western Japan, has organised digital drinking parties with great success. In the UK, The Wine List founder Josh Lachkovic has experienced a spike in demand for at-home wine tastings. Interest from startups and corporates means the company has a packed weekly schedule and Lachkovic has had to hire a team of remote tasters to accommodate all the bookings.

He says it's a fantastic way of breaking the ice. The Wine List team only knows the role of the person who books the session, so “everyone is equal”. He enjoys busting wine myths, including “Aren't screwtops all bad?” (answer: no), as people tend to get very animated.



You learn about other people and deal with them on a personal level, rather than just their roles



All In Good Time, a musical workshop that pre-COVID-19 would go into offices armed with ukuleles and microphones, has also successfully transitioned its model online and experienced a surge in interest. Founder Jason Tebble and facilitator Fred Claridge, both session musicians, run hour-long online choir exercises.

The aim, Tebble says, is to create a psychologically safe environment, encourage risks by getting participants to sing solos and solidify the team bond. He adds: “There is a lot we take for granted working in the same space in terms of feeling connected. It's a real challenge to recreate when we're all in our own homes.”

Grace McGeehan, founder of Graceful Mind and Body, who normally travels to clients' offices for group or individual sessions, has been giving yoga classes and therapy sessions via Skype or Zoom. Clients have told her they really appreciate employers investing in their wellness, especially during these testing times.

Sir Cary is concerned about a new-generation workforce who may struggle to feel integrated. He is hopeful that easements in lockdown may permit away days, albeit with strict social distancing, to help foster a sense of belonging and membership of a team.

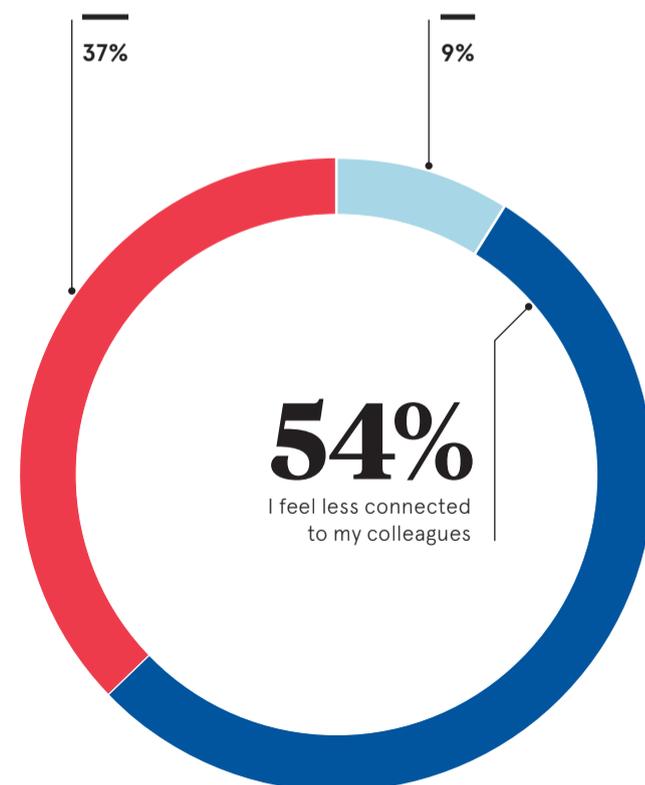
The challenge of introducing new starters to company culture is something Hamish Grierson, co-founder and chief executive of healthtech startup Thriva, isn't taking lightly. Since lockdown started in mid-March, the company has hired five new employees. Grierson has come up with a series of initiatives to ensure there's a support structure in place that goes some way to recreate the forced togetherness of being in the same physical space.

Thriva has welcomed new colleagues with a takeaway breakfast of their choice, alongside a delivery of the technology they've requested to turn their home into the best remote-working environment. The company runs a weekly automated scheme that pairs up each of the 50 employees with someone else across the business for a digital coffee. There are regular meditation sessions that people can drop into, but also no expectation to attend if someone doesn't want to spend more time looking at screens.

COVID-19 may have highlighted the sheer number of jobs that can be decentralised from offices, but the psychological impact remains to be seen. People may relish the absence of a commute, but work often offers a social and emotional support structure that cannot be replicated at home. If you want to safeguard the happiness and emotional welfare of your employees, it may be time to consider team-building and bonding exercises within lockdown parameters. ●

WORKING RELATIONSHIPS

Raconteur's readers, employees, journalists and social followers were asked if full-time remote working has impacted their relationship with colleagues



Making the case for lifelong learning

Rapid adoption of artificial intelligence, automation and advanced technologies means businesses have to invest time and money in reskilling and upskilling employees, before it's too late



ruben-rodriguez/Unsplash

Oliver Pickup

Nationwide lockdowns, enforced to limit the deadly spread of the coronavirus, sparked an explosion in digital transformation and home-working trends across the globe. Digital transformation, though, is not deployed once; it's an ongoing strategic campaign.

Technology and people are the two drivers powering successful digital transformation. Yet myopic business leaders, bedazzled by tech, risk forgetting the people power. Investing in staff training is critical. Moreover, it's a win-win situation.

"The only thing worse than training your employees and having them leave is not training them and having them stay." Henry Ford, the founder of the eponymous automotive giant and architect of the assembly-line technique of mass production, died 73 years ago, but his words live on with matured meaning.

Encouraging employees to reskill or upskill emphasises a level of care

and commitment towards them, at this time of acute vulnerability. If left unchecked, automation advancements and COVID-19's long shadow are enough to disable anyone's career. While investment in staff training boosts morale and in turn productivity, it also helps better future-proof an organisation and narrows the sometimes chasmal skills gap.

The World Economic Forum's *Future of Jobs Report 2018* laid bare the need to learn new talents to thrive in tomorrow's workplace. Analytical thinking and innovation will be most desired in the 2022 skills outlook; manual dexterity, endurance and precision could be the first shown the door.

Further, the researchers calculated that on average employees

“**Businesses must retain and retrain their workforce to keep up with, and take advantage of, a constant stream of innovations**

will require 101 days' retraining and upskilling from 2018 to 2022 as "emerging skills gaps, both among individual workers and among companies' senior leadership, may significantly obstruct transformation management".

"On the one hand, businesses must retain and retrain their workforce to keep up with, as well as take advantage of, a constant stream of innovations," says Anthony Tattersall, head of Europe, Middle East and Africa (EMEA), for online learning platform Coursera, which has generated more than 25 million enrolments since mid-March, a 520 per cent rise from the same period last year. "On the other hand, individuals must keep pace with a constant stream of innovations that hybridise and alter jobs."

Last year the Office for National Statistics predicted 1.5 million jobs in England are at "high risk of being automated in the future". Tattersall continues: "Many jobs will slip away, but increased productivity will mean many more new jobs will replace them, across all industries. These jobs are at risk of going unfilled if we don't adapt to a new way of thinking about education and learning new skills throughout a lifetime."

There are manifold benefits of investing in employee training, he adds. Funded learning improves staff engagement and

IN-DEMAND SKILLS

Comparing the top ten skills that were in demand in 2018 and predicted demand in 2022

Rank	2018	2022	Declining skills
01	Analytical thinking and innovation	➤ Analytical thinking and innovation	Manual dexterity, endurance and precision
02	Complex problem-solving	⬆ Active learning and learning strategies	Memory, verbal, auditory and spatial abilities
03	Critical thinking and analysis	⬆ Creativity, originality and initiative	Management of financial, material resources
04	Active learning and learning strategies	⬆ Technology design and programming	Technology installation and maintenance
05	Creativity, originality and initiative	❌ Critical thinking and analysis	Reading, writing, math and active listening
06	Attention to detail, trustworthiness	❌ Complex problem-solving	Management of personnel
07	Emotional intelligence	⬆ Leadership and social influence	Quality control and safety awareness
08	Reasoning, problem-solving and ideation	❌ Emotional intelligence	Coordination and time management
09	Leadership and social influence	❌ Reasoning, problem-solving and ideation	Visual, auditory and speech abilities
10	Coordination and time management	⬆ Systems analysis and evaluation	Technology use, monitoring and control

empowerment, and helps facilitate the transition to remote working. It also enhances the emotional wellbeing of employees. “The act of learning helps cope with stress,” says Tattersall, noting the average age of a learner on the Coursera enterprise platform globally is 29.

But with business leaders struggling to cope with the onslaught of disruption wrought by COVID-19, is enough being done to protect future careers?

D2L published research in June that showed almost three quarters (74 per cent) of learning and development (L&D) professionals believe the rise of automation and artificial intelligence is having a serious effect on their workforce. While 59 per cent have subsequently evolved their L&D programmes, the same percentage of employees don’t believe these challenges can be met with the current offering.

“There is not only a mismatch between employees’ and L&D leaders’ views on the skills crisis,” says Alan Hiddleston, D2L’s director of corporate learning, EMEA, “but it would seem many organisations do not offer engaging learning opportunities that actively encourage personal development and ‘enable’ their workforce to continue to test themselves.

“To deliver effective L&D solutions, there needs to be greater collaboration among departments. Establishing a continuous learning culture is key.”

LinkedIn’s *Leading with Learning* report, also launched in June, presents a more positive conclusion. Some 76 per cent of L&D professionals in the UK say more chief executives are now actively championing the development of their workforce since the COVID-19 outbreak, up from 28 per cent in a comparable study conducted in October.

“The coronavirus pandemic has forced many companies to pause hiring,” says Namrata Murlidhar Anand, director at LinkedIn Learning, “and instead focus on helping their existing employees adapt to the ‘new normal’ and develop skills that will be crucial to future growth.”

Platforms for so-called MOOCs (massive open online courses), including Tattersall’s Coursera and Udemy, have stepped up. “The online learning world is now overflowing with courses on pretty much any topic from a professional or personal standpoint,” says Amanda Rosewarne, business psychologist, co-founder and chief executive of the Professional Development Consortium, which accredits online courses.

“Cost-effective online training is disrupting the world of education. Prior to COVID-19, it was estimated that the e-learning industry would be worth \$325 billion by 2025. This is likely to have quadrupled since lockdown.”

Rosewarne urges caution when selecting online courses, as many are scams, but says: “With barriers to entry being low, millions of people across the globe are beginning to share their knowledge with the world. The online learning boom shows people are thirsty for knowledge.”

“

If you could time-port a university professor from the 19th century to today they would think few things have changed

Martin Raymond, co-founder of strategic foresight consultancy The Future Laboratory, argues that learning was due a shake-up. “If you could time-port a university professor from the 19th century to today they would think few things have changed,” he says, referencing the youth of students and hierarchical system. “Prior to COVID-19, this was changing, especially for those in their 50s and 60s, millennials and members of Generation Z.

“We understand new skills, disciplines and insights are needed to accommodate this multifaceted life-journey we are on. And since universities are still trying to accommodate the single career path, many organisations – recognising their employees will stay with them our research shows for 2.3 years maximum, unless there is a wider prize to be won – are becoming educators in their own right.”

Raymond celebrates the surge of blended learning, part digital, part remote, part face to face, and traces the trend for lifelong learning back to 2008 and the global financial crash, when jobs became more precarious.

It’s a time Lord Jim Knight, chief education and external officer at Tes Global, remembers well. “I was employment minister in the aftermath of the 2008 crash and was part of preventing the scarring effect on young people of long-term unemployment,” he says. “Right now, we are in a deeper economic crisis than anything in my lifetime. I hope a similar focus can help this time, but individuals also have a responsibility.”

Can organisations survive if they fail to invest in their staff? “Frankly no, not in the longer term,” says Lord Knight. “Technological change and globalisation are redefining work and the wider economy constantly. The only answer is more individual and corporate agility; that is only possible through a deep-rooted, lifelong-learning culture.”

Hackathons, so-called brown-bag informal sharing sessions and coffee roulette on Slack have been embraced to improve the learning culture within Tes, and break down silos, he says. “People need to feel active and valued, even when isolated,” Lord Knight concludes. “Investing in them through learning and in making it easier to work remotely is just non-negotiable.”

It’s imperative business leaders heed these lessons and invest in their employees. ●

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