Deloitte.

The connected worker
Clocking in to the digital age
May 2017

About this research

The research featured in this report is based on a consumer survey carried out by an independent market research agency on behalf of Deloitte.

In this publication, references to Deloitte are references to Deloitte LLP, the UK member firm of DTTL.

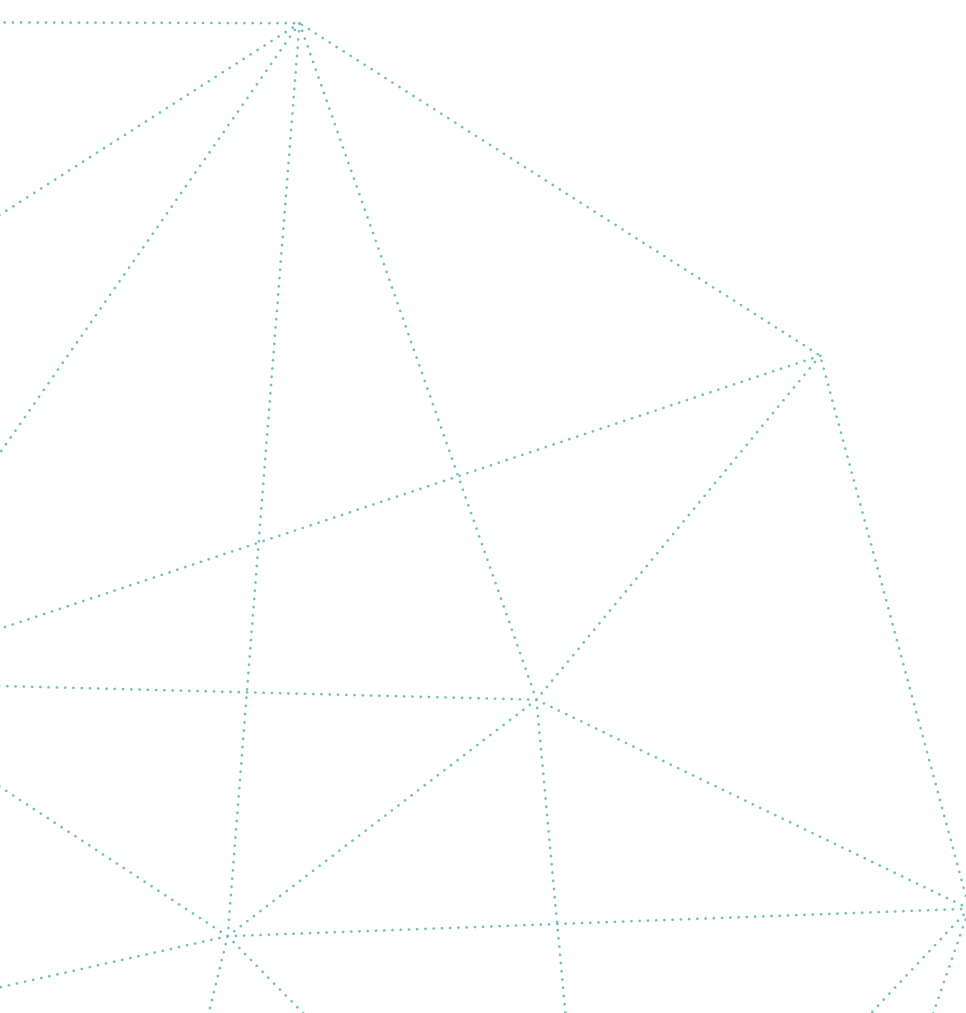Please visit http://www.deloitte.co.uk/connectedworker for additional content.

Methodology

To better understand employee experience, Deloitte commissioned an online consumer survey carried out by an independent market research agency. The survey was conducted with a UK nationally representative sample of 2,013 adults aged 18 and over.

Contents

Foreword

Digital disruption is changing every industry. In this report we consider the effects it will have on the services sector and make recommendations on how companies can respond.

Encompassing industries from law to facilities management and construction, the services industry is a broad one.

Yet, the industry is similar to others in that it is affected by changes in cultural working practices, technology platforms and consumer behaviour. To remain competitive in the future, services companies need to consider carefully what these changes mean for their business.

This report is called "The connected worker" because the services sector relies more heavily than most on people — it employs 13% of the UK's working population and for most services firms, it is their people who give them a competitive edge.
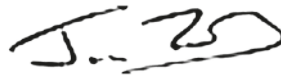
This makes it imperative that the industry considers how digital technology could impact its workforce — whether the aim is to cut costs, boost productivity, reduce attrition or find new growth opportunities. Companies that do not consider how these trends may affect them risk losing competitiveness.

For the purpose of this report, the definition of a connected worker is any person whose working life is changing, due to the development of digital and Internet of Things (IoT) technology.

These changes include improved networks or better connections with other people or with machines, the ability to make better decisions by using real-time information or data, or the removal of repetitive tasks.

As part of our research, we surveyed more than 2,000 UK workers to understand levels of technology use, and attitudes towards technology at work. We have split them into blue collar and white collar roles, which we use broadly to mean manual and office-based or professional work. This has enabled us to show how these trends are affecting different job roles and different parts of the services industry.

I hope you find this report of interest, and look forward to your feedback.

James Yearsley
Lead Partner, Services

For the purpose of this report, the definition of a connected worker is any person whose working life is changing, due to the development of digital and Internet of Things (IoT) technology.

At a glance

The focus of this report is the services industry, which includes the construction and infrastructure industry, facilities management, business process outsourcing, and professional services including the legal, consultancy and recruitment sectors.

The report refers to blue collar workers, which in this context means construction workers, facilities management staff including catering and cleaning staff, and maintenance staff. The term can refer to both skilled and unskilled manual work. The report also refers to white collar workers, which we use to mean predominantly staff who work in offices.

This report builds on consumer research to explore why services companies should be interested in digital transformation. Parts of the services industry are reaching an inflection point — technology prices are falling far enough to justify the investment, allowing services companies to explore new opportunities.

Digital transformation can improve margins significantly by making processes more efficient and by making workers' lives easier. At the same time, the report explores why it is important to re-imagine a company's business model, rather than simply using technology to make current processes more efficient.
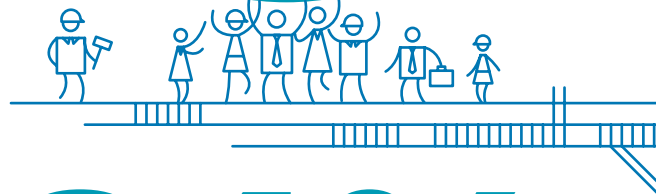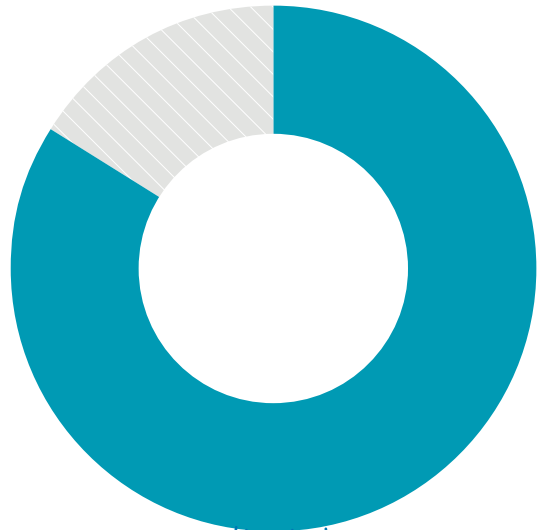
84%

of all workers think it's important for their companies to use the latest technology available to them.

51%
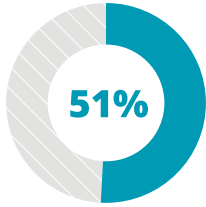
Blue collar workers are more disconnected than white collar, with **51%** of blue collar workers classing themselves as 'very light' users of technology in their workplace.

47%

Yet, **47%** of blue collar workers use their smartphones more than 5 times a day outside of work. Only **13%** do the same at work.
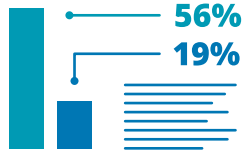
56%
19%

Senior white collar workers are keen on the idea of giving up job security in order to work more flexibly. **56%** of this category value flexibility over security, compared to just **19%** of skilled manual workers.

63% of white collar workers are looking forward to working more flexibly compared to **43%** of blue collar workers.

Digital transformation can improve margins significantly by making processes more efficient and by making workers' lives easier.

A new environment

People are the key asset of the services industry, and cultural and technological shifts are having a major impact on employee behaviour.

- The business-to-business services industry relies heavily on its people, making it crucial for the sector to understand how digital trends are affecting the workforce.

- However, blue collar workers in particular are disconnected — 51% report "very light use" of technology in their working lives.

- In this section, we outline the key social, cultural and economic changes that are likely to affect the services industry.

Adapting to new employee behaviour

Workers are more connected than ever before. In their personal lives they now shop, bank, book holidays and socialise on their smartphones, anywhere and at any time of day. But the changes taking place in the consumer economy are yet to penetrate fully the working world.

This is particularly true for manual workers in services industries, where the nature of the work means technology is taking longer to have an impact. While office-based workers are more likely to be heavier users of technology at work, more than half (51%) of blue collar workers class themselves as 'very light users' of technology in their work.

Figure 1. Technology usage by profession
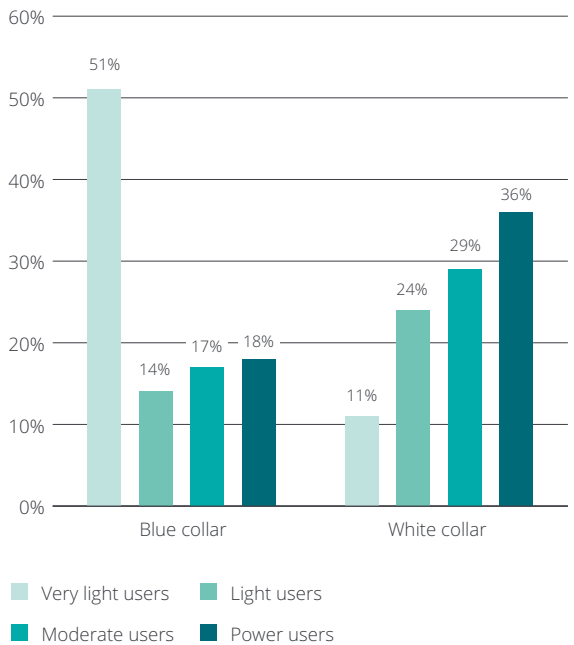
- "Very light users" use technology infrequently as part of their jobs; "light users" use one or two pieces frequently; "moderate users" use a range of technologies regularly, with one used more than five times a day; while "power users" use a range of technologies more than five times a day.

- Workers use technologies frequently in their personal lives but less frequently as part of their work.

- Blue collar workers are less connected than white collar workers.

However, people's behaviour at work is likely to change in the coming years, following a similar pattern to behavioural changes in their personal lives. Several trends, including the growth of the gig economy and a greater demand for flexible working have focused the discussion around digital transformation more acutely on working life and how it might evolve. In addition, changes such as the living wage and Brexit are also helping to focus attention on labour costs and recruitment. Businesses are already concerned about finding staff for some roles without easy access to an EU workforce.[1] Companies may need to rethink their employee experience to make sure they are attracting enough UK workers to fill the roles, or consider how they could use technology to change how the work gets done.

Some of the new technologies, such as process automation, have immediate potential for all kinds of businesses, while the case for others — such as natural language processing, may not emerge for a while.

Companies are coming under increasing pressure to boost productivity as labour market changes take place. Increasing the use of technology could enable services businesses to better manage such changes.

Workers themselves recognise the power of new technologies and many are keen for the businesses they work for to take advantage of them. In our survey, 84% of workers said it is important that their business uses the latest technology. However, the disconnection of manual workers is again evident with nearly a quarter thinking technology is not at all important.

Organisations, however, are unsure about managing the more advanced technologies that will soon start to have an effect on daily working lives. For instance, only 17% of global executives say they are ready to manage a workforce with people, robots, and AI working side by side.[2]

Figure 2. Importance of the latest technology

Legend: White collar, Blue collar
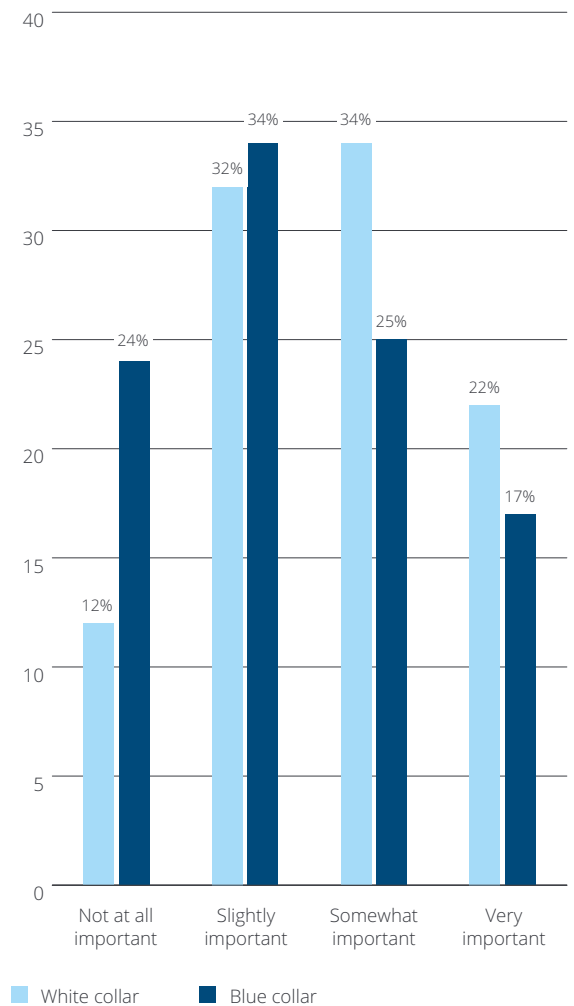
- 88% of white collar workers and 76% of blue collar workers think it is at least slightly important for their company to use the latest technologies.

- Blue collar workers are more likely to think technology is not important, with nearly a quarter saying it is not important at all.

Wider trends

New technologies such as robotics, IoT and AI can provide new opportunities for reducing costs, improving productivity and retaining talent. These technologies can help companies reskill their workforce, prepare them for working side by side with robots and automation software. Embracing the new way of thinking required by technology will allow a business to remain competitive in the future.

Some of the changes set to happen within the services sector will be driven by changes in the consumer economy. Consumers now demand services that are quick, convenient and often accessed via smartphones. The need to keep up with consumer demand will put pressure on many services businesses to invest in the infrastructure needed to satisfy changing consumer behaviour. For instance, facilities management companies that run company canteens may, in the future, come under pressure to compete with a Deliveroo-style lunchtime service that brings food ordered on a smartphone to employees' desks.[3] If a company wants to compete in the consumer economy, it will need to empower its employees by providing them with the necessary technology, as well as creating a culture that allows change to occur.

Most parts of the services industry have tight margins, making the investment case for digital transformation a challenge. But services businesses are reliant on people and any company so dependent on one type of resource must consider how to respond to the trends affecting it.

In the next section, we will consider the reasons why services businesses should think carefully about digital transformation in the workplace.

Blue collar workers are less convinced of the benefits of technology, with **24%** thinking that technology is not important in the workplace vs. **12%** of white collar workers.

More than

HALF

of blue collar workers are

"very light users" of technology

compared to **11%**

in white collar

professions

However,

47%

of blue collar workers use their smartphones in some way more than five times a day outside of work.
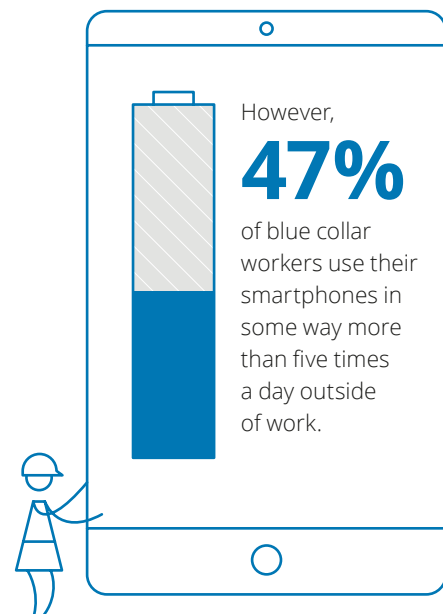
Blue collar

White collar

Very light users	Light users	Moderate users	Power users		Very light users	Light users	Moderate users	Power users
51%	14%	17%	18%		11%	24%	29%	36%
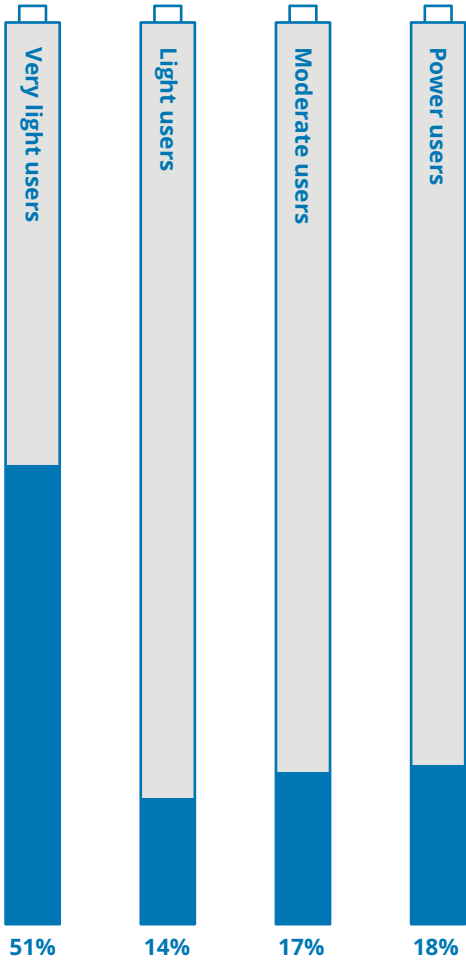
Blue collar workers are less connected at work than white collar workers, despite high use of technology in their personal lives.

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The forces of change

The main forces driving digital transformation come from three areas: within the business, employees and the external market.
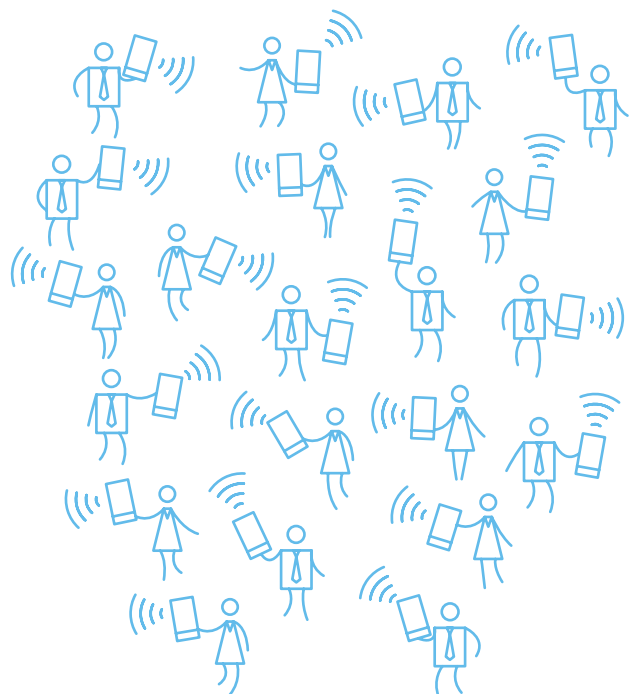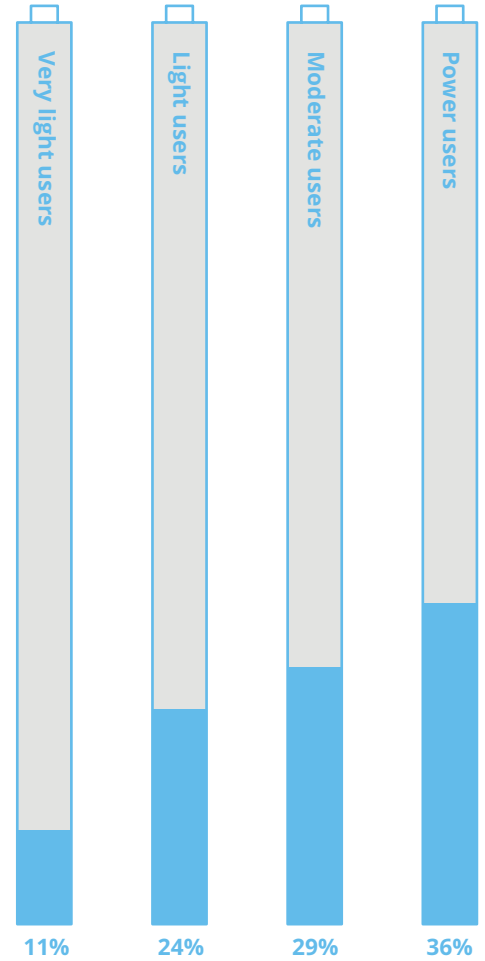
Why the connected worker matters

- Some companies embark on digital transformation projects to cut costs and boost productivity.

- Workers are keen to use technology to make their day-to-day lives easier.

- New competitors are entering the services industry, making it necessary for established businesses to respond.

Services businesses will come under pressure to consider digital transformation in the coming few years. This pressure will come from within the business itself, from its employees and from the external environment.

Business driver: Cost

The living wage and the apprentice levy have increased the focus on costs for companies employing large numbers of workers on the minimum wage. As a result, many companies are looking for ways to ease the cost pressure and improve the productivity of their workforce.

Robotic process automation is one tool that could help improve the efficiency of basic repetitive tasks. It is already being used in some industries — notably financial services, to speed up transactional processes in finance and human resources.

For businesses with a high proportion of blue collar workers, the living wage means costs are rising. Other companies, meanwhile, are concerned that they will not be able to fill certain types of roles without easy access to an EU workforce. The use of robotics could help to reduce the pressure on businesses. Robots can complete a wide range of tasks, such as bricklaying or serving drinks, and could help to ease the pressure on companies that are finding recruitment or labour costs a challenge.

The living wage and the apprentice levy have increased the focus on costs for companies employing large numbers of workers on the minimum wage.

Connecting workers could also save costs by cutting the amount of time it takes to complete certain processes. For example, if the agreement of and sign-off for change orders between builder and client can be sent in real time, via a central invoicing system, this could save both parties time and money.

For other businesses with more white collar staff, real estate costs are more significant. Increasing the agility of the workforce by enabling them to work remotely breaks the traditional link between headcount and space requirements. This can create a virtuous circle of real estate savings which can fund investment in the technology needed to increase agility further.

Cost pressures, combined with a cultural shift towards more agile working and greater use of technology in people's day-to-day lives, mean offices are increasingly being designed to encourage collaboration and make it easy to meet colleagues. Firms are also putting pressure on landlords to allow them to sign shorter rental contracts so that they can change their working environment more frequently.

Business driver: Changing skills requirements

All businesses will need new skills in the coming years. This may be as straightforward as needing people with digital and technical skills, or it may be related to a company's need for more 'human' skills as its use of AI and robotics grows — workers will need problem solving, critical thinking and negotiation skills in the future.[4] But other skills shortages may also prompt the need to plan staff requirements for the future.

For instance, many of the engineers who work on maintaining the UK's rail infrastructure are nearing retirement. As a result, maintenance companies need to improve their workforce planning to understand where the gaps are. Other businesses are relocating to areas where certain skills are easier to come by — moving to London, for instance, to improve their access to people with digital skills.

Regardless of motive, businesses will need to think strategically about the skills they will require and value in the workplace of the future. Using data analytics techniques to help measure and map people's skills could enable a company to do this more effectively.

Employee driver: Improving the employee experience

Employee engagement is high on the agenda for many HR leaders and can take many forms, whether the aim is to attract senior talent or reduce attrition among the workforce overall. Modernising the employee experience has become an important part of the HR strategy.

Services businesses are starting to recognise this, and some are rethinking the employee experience in the same way that retailers have started to rethink the customer journey in store. Employees are now used to mobile and chat technologies, and increasingly expect their workplaces to provide the same.

Digital technology is already being used to improve employees' lives. In some councils, for instance, the process of reporting and cleaning graffiti has been improved using smartphones. Instead of requiring staff to visit the site multiple times to assess the problem and check on the quality of a contractor's work, everything is now confirmed using smartphone pictures taken by the contractor. This is easier for employees, and cheaper for the council.

All businesses will need new skills in the coming years. This may be as straightforward as needing people with digital and technical skills, or it may be related to a company's need for more 'human' skills as its use of AI and robotics grows.

Employee driver: Cultural changes

Staff increasingly expect to be able to work in different ways, whether this means working remotely or being able to access company systems — such as claiming expenses or booking a holiday, on their mobile phones. Workers also expect their employer to invest in learning and provide continuous feedback. They often want an increased focus on well-being, as well as greater autonomy in how, when and where they work.[5]

Some companies will need to update their workplaces to continue attracting the best staff, while others may find that staff simply start to work around company systems and use their own technology — by using Whatsapp groups to collaborate, for instance.[6] Understanding how this behavioural response to technology differs between people is particularly relevant to services organisations, because they employ so many manual workers.

Blue collar workers are used to using technology: 47% use their smartphone in some way more than five times a day outside of work. But just 13% use it this much for work. More than a quarter (27%) use their phones to check personal emails more than five times a day, but only 15% do so at work.

Businesses employing large numbers of blue collar workers should tap into this use of smartphones. Smartphone ownership is high even among minimum wage workers — 81 per cent of UK adults now own one.[7] Instead of businesses investing in expensive systems, specialist apps could provide people with access to work systems or ways to communicate with colleagues.

Blue collar workers have historically been difficult to communicate with. Smartphone apps could improve employee-employer communication, and could also be used to track attendance or shift swapping. They could also be used to solve problems collaboratively with colleagues who work across different sites. Questions and issues could be posted on a platform and answered by anyone with access, similar to how a social network operates.

Some companies will need to update their workplaces to continue attracting the best staff, while others may find that staff simply start to work around company systems and use their own technology.

Figure 3. Professional vs personal use by technology, blue collar

Average personal use ■ Average use at work
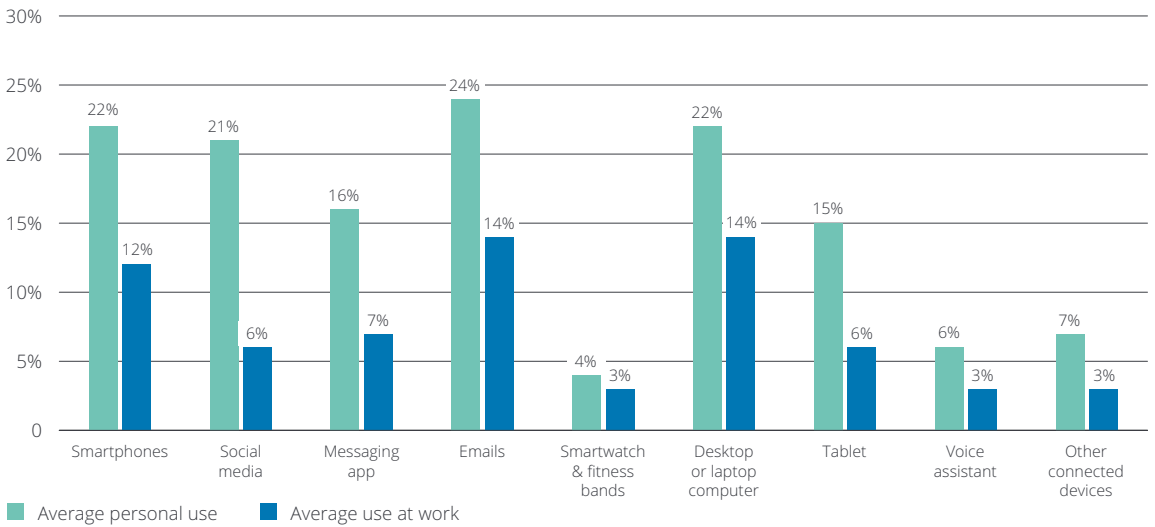
Figure 4. Professional vs personal use by technology, white collar

Average personal use ■ Average use at work
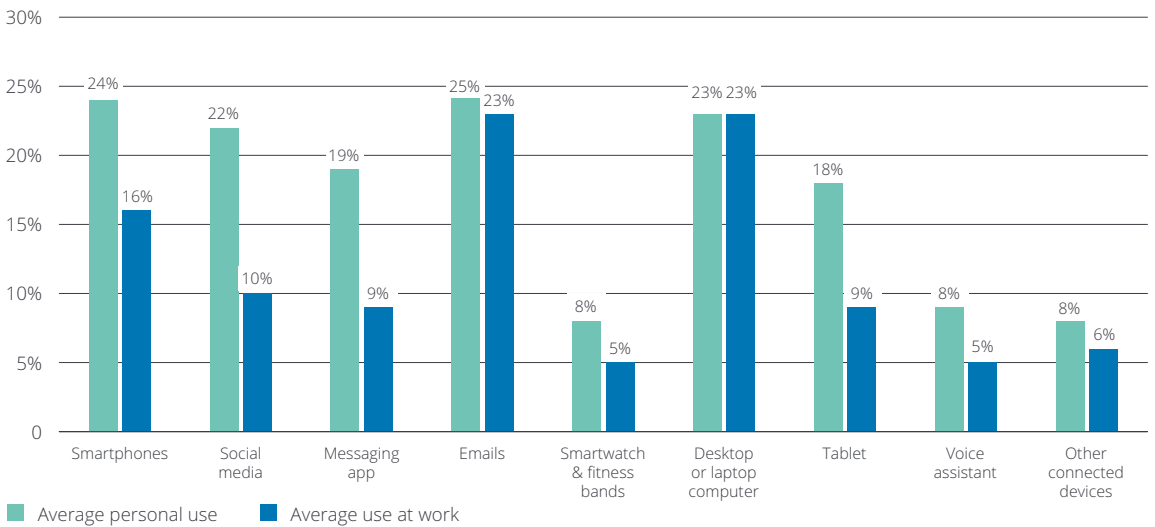
There is less of a gap between professional and personal technology use for white collar workers, particularly for email and computers. However, personal use of technology is still higher than professional use in most categories.

When asked to rank their preferred impact of technology, the most popular answer for both blue and white collar workers was "to make my job easier". This is particularly the case for blue collar workers. One third of blue collar workers would like to see this happen, compared to one quarter of white collar workers.

Figure 5. Preferred impact of technology

White collar ⬛ Blue collar
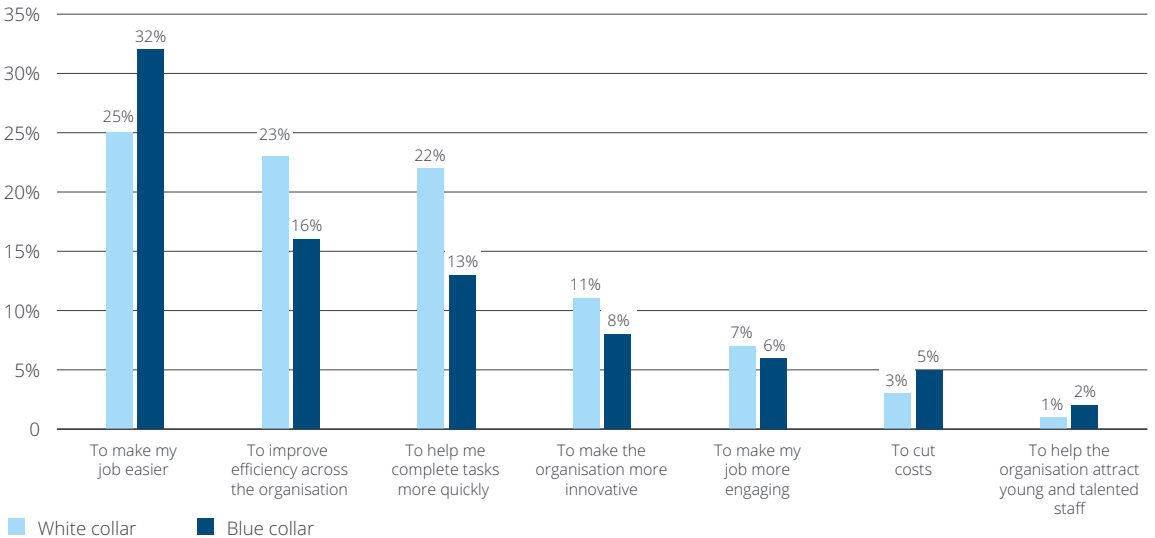
External driver: New competitors
Digital technology can lower barriers to entry in a market, making it easier for new companies to compete.

Start-ups do not have to be direct competitors to established businesses to have an effect on how a company is run. For instance, Deliveroo and UberEats are helping to change customers' expectations of how they get around or order food. Instead of visiting on-site canteens or cafes run by facilities management companies, consumers may expect to order food on their smartphones for collection or delivery to their desks. Brands across the food service industry are changing the way people expect to be able to purchase food, having introduced in-store kiosks, mobile payment and click and collect ordering.

Both blue and white collar workers say they would like to see technology being used to make their jobs easier.

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Services innovators: Legal start-ups

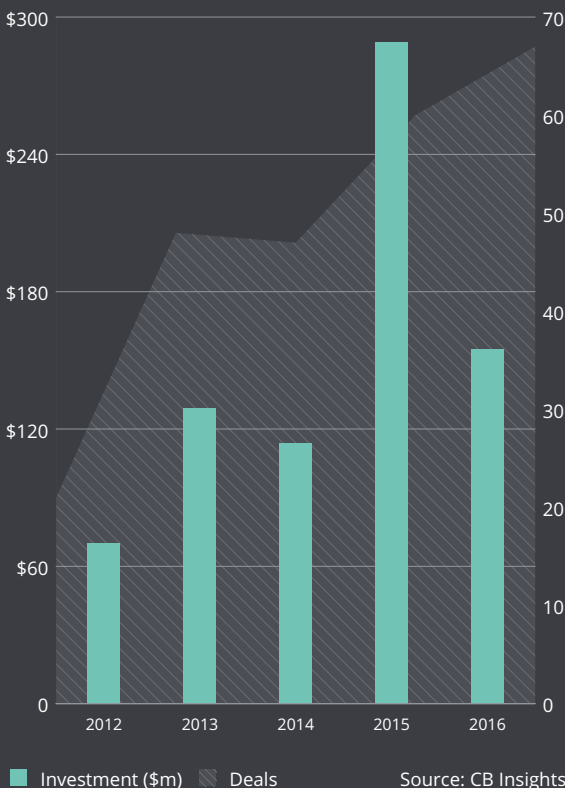Innovative activity has increased in the legal sector over the past five years.

Data from research firm CB Insights shows that globally, start-ups in the industry generated a record number of deals in 2016, with $155m invested over 67 deals.

Two UK examples of newer, innovative tech firms include Axiom Law, which is using technology to provide legal services by using AI technology in due diligence and other labour intensive parts of the legal process. Although not a direct competitor to traditional firms, it is contributing to a wider shift in expectations of how the legal sector operates, and to an increase in innovation across the sector.

Another, Riverview Law — based in north-west England, is launching what it calls "virtual assistants". Corporate in-house lawyers will be able to use these systems to identify, on a digital "dashboard", the units where problems have occurred, the risk profile of any case, who is working on it and how long they take.

Some established names in the services industry are also helping to introduce new technologies. DPD in the logistics industry is an example of an established business that has put increased effort and investment into using digital technologies to improve its services.

Services innovators: DPD
DPD has invested in a range of technology to enable its drivers to deliver parcels quicker.

Its 'Your DPD' app, launched in 2016, allows customers to track deliveries, as well as specify certain times of the day for the driver to avoid, such as the school run. The app can also alert the driver when a customer returns home, meaning the driver can return with the parcel if it was not possible to deliver it earlier in the day.

DPD drivers also use handheld scanners to speed up the time it takes them to process deliveries. The scanners provide drivers with information as they work, and have helped the company improve its service over the last five years.

Annual global legal tech financing trend

Investment ($m)   Deals   Source: CB Insights

External driver: Customer pressure

Customers in most industries are starting to put pressure on services companies, asking how they are using digital technology to provide the best possible service. Prospective clients are starting to ask law firms, for instance, whether they are using technology to enable the execution of legal matters in the quickest, most accurate and low-cost way.

Businesses that use technology to reduce their costs can improve their competitiveness by passing the savings on to the customer. Those who fail to do this will struggle to compete on price.

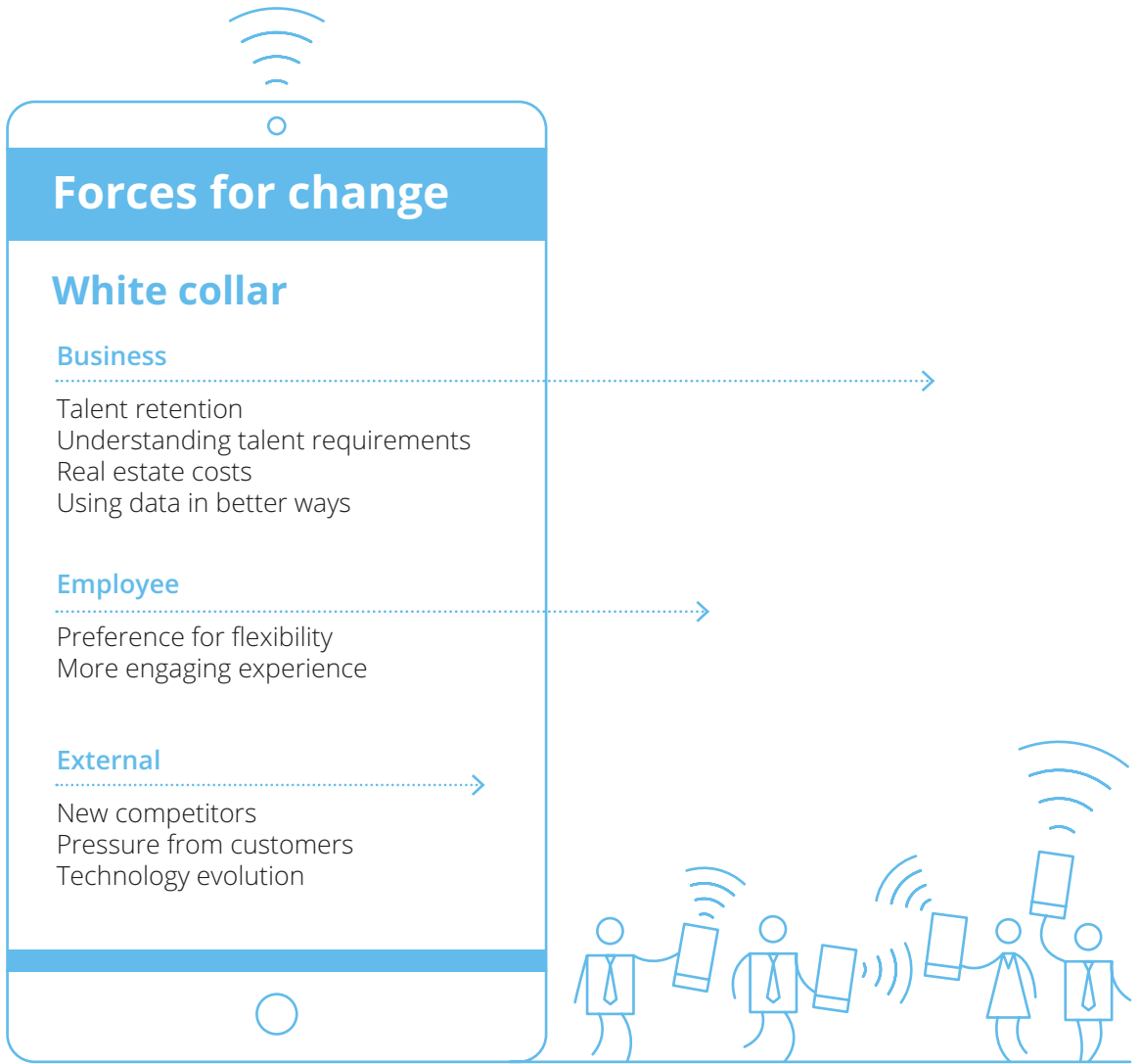### External driver: Evolution of basic workplace technologies

Digital transformation in services companies won't only be driven by much discussed new technologies such as robotics or AI. Core office technologies such as word processing platforms, email and telephone are also evolving to provide additional scope for connected and collaborative working. Leading platforms from Microsoft and Google, for example, allow users to edit a document together at the same time from a range of devices, both in and outside traditional working environments. The technology is enabling organisations to move away from complex and costly teleconferencing arrangements — users can connect themselves, external organisations and meeting spaces in seconds.

With only 13% of enterprises having moved to modern cloud-based workplace technology, the remainder need to do so in the next three to four years as the product life of existing systems comes to an end.[8]

For many this technology change represents a significant investment. However, it should be viewed as an opportunity that could produce a range of benefits, rather than a 'technology replacement' project.

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Forces for change

Blue collar

Business

Alleviate margin pressure
Boost productivity
Reduce cost
Understand labour requirements

Employee

Opportunity to update skills
Make working lives easier
Changing consumer behaviours towards technology

External

New competitors
Pressure from customers
Technology evolution

Forces for change

White collar

Business

Talent retention
Understanding talent requirements
Real estate costs
Using data in better ways

Employee

Preference for flexibility
More engaging experience

External

New competitors
Pressure from customers
Technology evolution

Why should services companies be considering a connected workforce?

New tools at your disposal

From data analytics to artificial intelligence, there is a world of opportunity available to services businesses.

- The various tools now available to businesses have the potential to make employees' lives easier and companies more efficient.

- There is a range of new tools and trends that have emerged in recent years which most services companies have yet to consider.

The gig economy
Under the gig economy model, workers are not permanent employees of the company but instead can choose to accept individual jobs or shifts the minute they are offered. Workers and customers both use applications on their mobile phones that are updated in real time as jobs come in. Despite the high-profile growth of this model in recent years, only 9% of organisations consider themselves capable of managing workers from the gig economy.[9]

Services companies should consider adapting the philosophy behind the gig economy to their own operating models — for example, by offering workers last minute extra shifts via an app. The construction industry may be particularly well suited to the gig economy, as large construction projects often need multiple small companies or individuals to work together. Using an app, businesses or individuals could accept or bid for jobs as they are advertised.

Deloitte research on the gig economy suggests workers are interested in the idea of trading flexibility for security. Sixty three per cent of white collar workers say they are looking forward to the greater flexibility technology is likely to bring them.

Blue collar workers are less sure about the trend, with 46% saying they neither agree nor disagree with the concept of greater flexibility.

Deloitte research on the gig economy suggests workers are interested in the idea of trading flexibility for security. Sixty three per cent of white collar workers say they are looking forward to the greater flexibility technology is likely to bring them.

Figure 6. Looking forward to flexible working
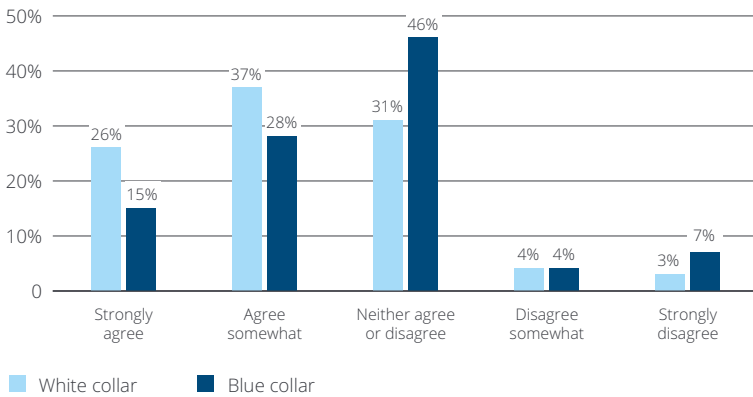
- 63% of white collar workers are looking forward to working more flexibly

- Blue collar workers are unsure about the idea with nearly half neither agreeing nor disagreeing

White collar   Blue collar

Figure 7. Prefer flexibility to security
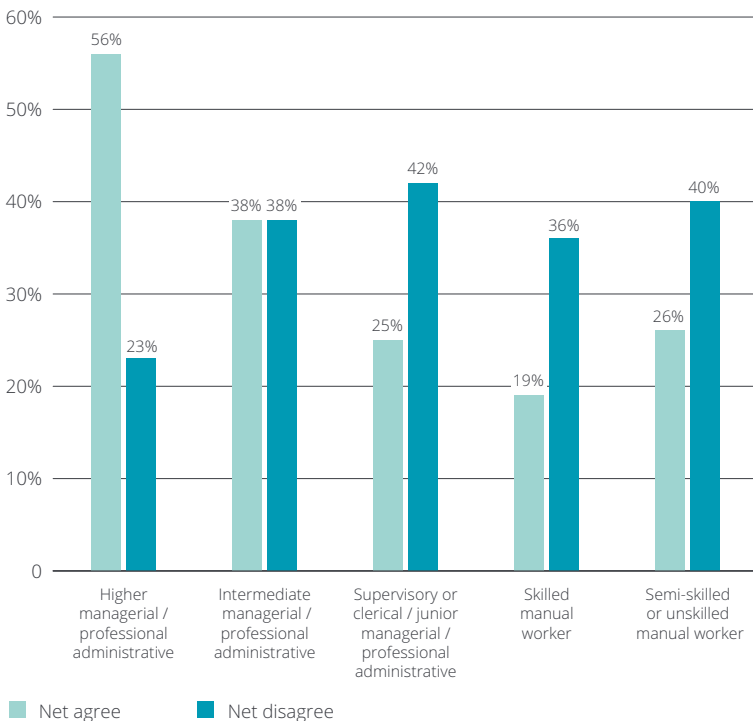
- 56% of professionals would be willing to trade job security for more flexibility

- Manual workers are less keen to lose job security

Net agree   Net disagree

Overall, workers become less sure about flexibility when asked to give up some form of job security in return. However, this is not the case for higher paid roles. Fifty six per cent of those in senior white collar roles say they would be willing to give up security to work more flexibly. For white collar roles as a whole, a third agree they would like to work more flexibly in return for less job security.

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Next-generation productivity and collaboration tools

Cloud-based workplace technologies can enable more efficient collaboration. For example employees can always access the latest information in a shared workspace, work in real time on the same document as a colleague and video conference instantly from the device and location of their choice. This has been taken one step further in the construction industry, where every time building plans are updated, cloud-based intelligent software can readjust accordingly to inform users of the amount of materials that will be needed for the new plans.

In other blue collar roles, collaboration software can be used on smartphones to enable staff who are not desk-based to communicate easily, sharing helpful information to support swapping shifts or answering difficult questions. By adding an app such as Workplace by Facebook to their phone, staff can communicate in a way that they are used to. The workplace-focused app means it is done in a faster, better controlled, more secure and scalable environment than if they were using a consumer-facing app.
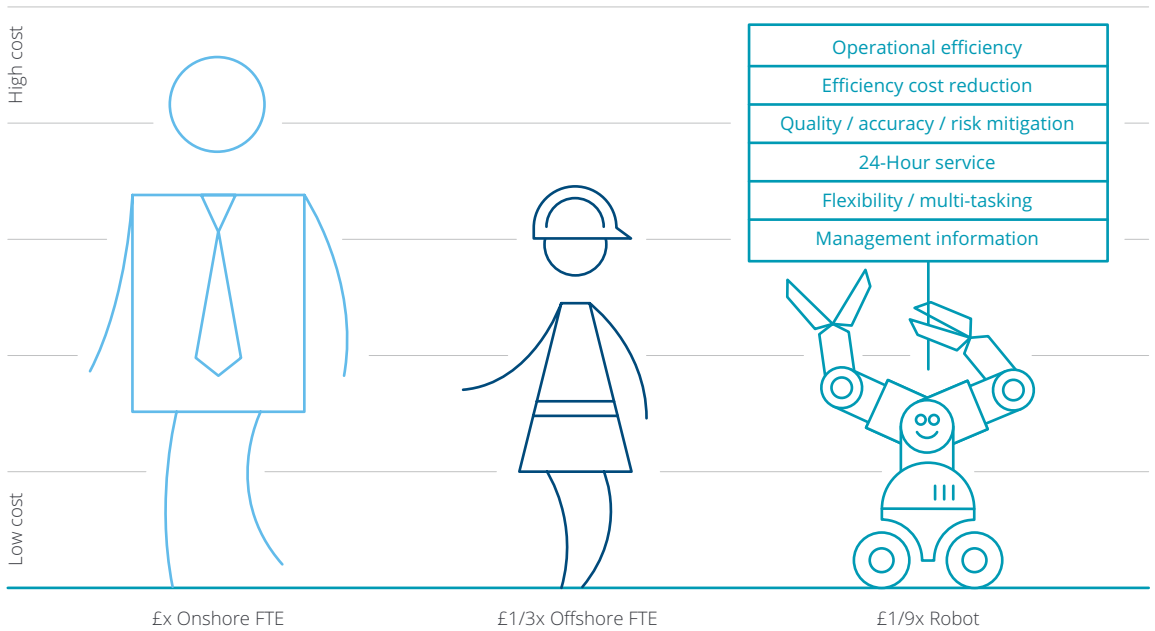
Facebook is already being used by some retailers to allow store staff — who rarely use desktop computers, to swap shifts, or make themselves available for more work. It can also be used to improve two-way communication and engagement between workers and senior management, by live-streaming town hall meetings or by enabling workers to vote on particular issues using poll buttons across the whole firm. Live-streaming and other Facebook features can also be used by geographically disparate teams who want to share key knowledge, such as new processes or product insights, or to seamlessly hand-off a customer as they move between workers at one physical site and another.

Collaboration is just one area where new IT platforms can improve working life. Technology start-ups and established IT firms are starting to release a range of new tools and systems. For instance, some workplace applications can be used to incentivise certain behaviour through a reward system; others can be used to personalise reward packages, allowing people to choose extra holiday time over a pay rise. Training and learning at work are also changing. Instead of always requiring staff to leave the office for a day or more to attend training courses, HR teams are moving towards curating collections of content, such as short online lectures which can be watched at the employee's convenience.

The buildings in which people work are also changing. For example, employees could use WiFi to identify and locate their colleagues, or enabling project teams to come together.

Collaboration is just one area where new IT platforms can improve working life. Technology start-ups and established IT firms are starting to release a range of new tools and systems.

Figure 8. Cost of automation versus full time employees

High cost

Low cost

| Operational efficiency |
| Efficiency cost reduction |
| Quality / accuracy / risk mitigation |
| 24-Hour service |
| Flexibility / multi-tasking |
| Management information |

£x Onshore FTE   £1/3x Offshore FTE   £1/9x Robot

Source: Deloitte analysis

Automation

Artificial intelligence and robotic process automation are two technologies having a significant impact on how work is done. In construction, for instance, a robot bricklayer is able to lay several times as many bricks in a day as a human construction worker. The technology is in its early stages — the machines currently need to be heavily supervised, and cannot complete more complex tasks. But the technology is likely to evolve further, although it is unlikely to completely remove the human element of the work. There will therefore be a need to consider how humans and machines work together.

It is important for services companies to consider the effect of automation technologies on employment. While it is rare that software itself fully replaces a human worker, other humans who are able to use the new technology often take the role of the old worker. For this reason, companies need to give workers the opportunity to learn and upskill — this will be the best way to ensure they have the skills required as their use of technology increases.

Automation technologies are already helping to improve the way many people work. Deep learning software, for instance, is being used by highly trained oncologists to improve cancer detection rates.[10] The work that is likely to be automated in the future will be routine work — it doesn't matter if this is white collar work or manual work.

Artificial intelligence and robotic process automation are two technologies having a significant impact on how work is done.

The Internet of Things

The Internet of Things holds significant potential for services companies, especially for people working in manual, blue collar roles.

Canadian postal company Snaile provides one interesting example of how IoT technology can improve a worker's productivity. It uses automated lockers that have sensors embedded in them, which tell both customers and postal workers when the locker has something in it. Canadian customers — 73% of whom use community mailboxes, only need to visit the mailbox when something has been delivered. It also means the postal worker can limit his or her collections to the lockers that are full, without having to check every one, thereby making their life much easier.

Internet-connected sensors have the potential to change how asset maintenance is managed by alerting managers to problems early on, before something breaks.

Health and safety is another area where the IoT can assist. Some construction companies, for instance, are using internet-connected wearable devices to track how their construction workers move. The devices can tell whether they are lifting heavy loads correctly, or whether they are putting themselves at risk of injury.

Using data to measure employee value

Connecting workers is not just about giving them new devices to use. A company whose workers are connected also generates more data, which can be used to improve its workers' lives further. Below is one example of how data can be used to improve a company's decision-making as well as the employee experience.

- Deloitte's Employee Value Index (EVI) tool allows organisations to use data to measure the value of an individual employee. This will not only help businesses make better decisions regarding their people, it will also empower employees to show the value they contribute.[11]

- Using the tool prompts companies to think about how they value people, and what really matters to the business. It also means that employees who might not have been traditionally valued as much as they should have been — perhaps because they don't directly bring in revenue, are better recognised for what they do bring to the company.

- The tool uses data including an employee's targets and performance management scores, their length of tenure, previous experience and level of engagement. It also uses environmental data. For example, the value a technical worker contributes could be weighted towards the scarcity of that skill in the market.

- Over time, the EVI tool will be able to predict potential problems and offer appropriate solutions, such as if and when an employee is over-worked and has not taken leave for a considerable amount of time.

- After several years' worth of data have been collected, the tool can be used to profile new employees and predict the sort of work they might respond well to. It can also help companies to get a clear idea of the skills within their business, and where the skill gaps might be. This could be particularly helpful for blue collar businesses as labour requirements change.

- People's attitudes to the use of their data are becoming more accepting. In our survey, 42% of workers said they found it acceptable for employers to collect data on them to measure their value, compared to 27% who said they found it unacceptable.

New tools at your disposal

Internet of Things (IoT)
Using internet connectivity to improve processes or decision making.

Wearables
Can be used to monitor workers' health and safety.

Automation
Can free up time spent on logical, routine tasks for more value-adding activities.

Drones
Can assist with infrastructure projects by surveying and monitoring vast areas safely and quickly.

Workplace tools
New platforms to assist with collaboration, productivity or training in the workplace.

Augmented/ Virtual Reality
Allows physical projects to be visualised before work begins.

Gig economy
Reduce workforce costs and introduce flexible working.
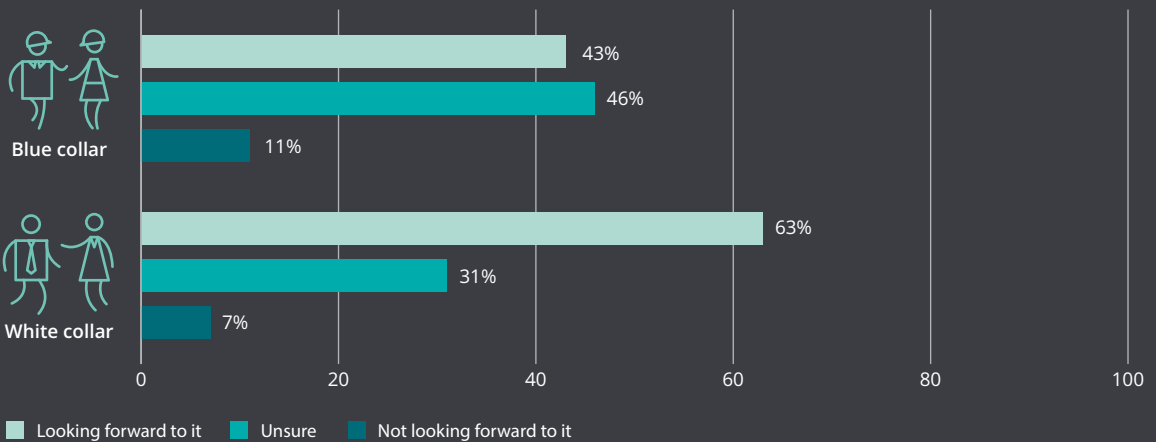
Artificial Intelligence (AI)
Can assist in a wide range of tasks such as image and voice recognition and natural language processing.

Data Analytics
Using data to help improve decision-making.

Looking forward to flexible working

Blue collar
- 43%
- 46%
- 11%

White collar
- 63%
- 31%
- 7%

0   20   40   60   80   100

■ Looking forward to it ■ Unsure ■ Not looking forward to it

63%

of white collar workers are looking forward to working more flexibly. **43%** of blue collar workers surveyed feel the same.

Senior white collar workers are keen on the idea of giving up job security in order to work more flexibly. **56%** of this category value flexibility over security, compared to just **19%** of skilled manual workers.

The challenge of transformation

The concept of the connected worker forces companies to assess their traditional business models. How should services companies react?

The forces of digital transformation should prompt services companies to step back and carefully consider their core purpose. This in turn may prompt a fundamental reassessment of a company's business model and the work the company does. With its core work reimagined, the company should then address a number of key questions:

• What is the optimal combination of talent and technology to deliver the company's work?

• What is the optimal mix of employees and external talent?

• Where should the work be done?

• How does the company's culture need to change?

• What skills will the workforce need, and how can they be developed?

Combination of talent and technology
Services companies need to explore how the technical tools available today can augment the human workforce. As explored in the last chapter, these tools include collaboration tools, robotics, and cognitive technologies such as artificial intelligence, the IoT, and virtual reality. Businesses can use the power of machines to accomplish more tasks in a more efficient way. Companies should then re-design the remaining work to focus on the value that humans can add.

Where should the work be delivered?
The new collaboration tools available mean some companies have more options regarding where work is delivered. For instance, a law firm may question whether lawyers and paralegals need to be in the office to complete their work. If workers are able to work effectively outside the office, this poses important questions for what is left of the 'core' working environment. Where should it be located? How much space does it require? And what should that space look like? Spaces that enable collaboration and social interaction among the workforce could become far more valuable.

What is the optimal mix of employees and external talent?
A relevant question for a blue collar company might be whether the principles of the gig economy could be applied to their business model. For example, does a maintenance company need to employ service engineers, or could it be more efficient to use a gig economy model where workers pick up jobs via an app each morning?

How does the company's culture need to change?

Services companies will need to focus a large part of their efforts on their culture: the system of values, beliefs, and behaviours that shape how work gets done. Culture is a strategic concern that is likely to influence key decisions as to how far and fast new technology and workplace tools are adopted.

What skills will the future workforce need?

New business models and new technologies will drive a need for new skills in the workforce. Services companies will need to think strategically about their future skills requirements. For most of the workforce, the most important skills will be problem solving, creativity, project management, listening, judgement and decision-making skills. The transformation journey will involve a comprehensive set of recruitment and reskilling initiatives to build the future workforce.

Transforming a services company for a digital future will require close collaboration between different parts of the business. This will help ensure that new skills, technologies and workplace tools are implemented in a strategic and coordinated way.

The forces of digital transformation should prompt services companies to step back and carefully consider their core purpose.

The importance of culture

- Culture is hugely important to businesses: 82% of the respondents to the Deloitte 2016 Global Human Capital Trends survey said they believe culture is a potential competitive advantage.[12]

- Nearly nine in ten (87%) of survey respondents said that culture is important, and 54% rated it as very important, nine percentage points more than in 2015.

- While culture is widely viewed as important, it is still largely not well understood — many organisations find it difficult to measure and even more difficult to manage. Only 28% of survey respondents said they understood their culture well, while only 19% said they have the "right culture."

- Culture can determine success or failure during times of change: mergers, acquisitions, growth and product cycles can either succeed or fail depending on the alignment of culture with the business's direction.

- Culture brings together the implicit and explicit reward systems that define how an organisation works in practice, no matter what an organisational chart or corporate mission statement may say. A staggering number of companies — over 50% in 2016's survey, are currently attempting to change their culture in response to shifting talent markets and increased competition.

Looking forward

The transition towards the fully connected worker is going to accelerate in the coming years. This process will bring benefits for businesses and the individuals who work for them. There is an opportunity to improve a company's competitiveness, while also improving the lives of its employees.

While companies that employ a large number of white collar workers are generally at a more advanced stage of this transformation, companies employing mostly blue collar workers are very much at the start of this process. Deloitte's Connected Employee proposition aims to bring to life the topics discussed in this report, providing visitors with a chance to follow staff through their working day as they use and interact with different technologies, and enabling businesses to better understand the benefit of connecting workers.

Doing the necessary work to connect workers and reassess the business model will be crucial for services businesses who want to remain relevant in the future. Those who do invest are likely to find the opportunities for growth, differentiation and margin improvement significant.

Doing the necessary work to connect workers and reassess the business model will be crucial for services businesses who want to remain relevant in the future.

Endnotes

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