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An ageing workforce in the digital era: older workers, technology and skills.

About This Document

This document was published in 2017, hence it uses our old branding. Despite its age, the document contains relevant and useful information. However, some specific links, case studies and statistics may be out of date.

Missing Link

An ageing workforce in the digital era:
older workers, technology and skills

A Business in the Community report,
supported by Tata Consultancy Services

At TCS, learning and development is an ongoing process and we support all our employees to continue to learn and gain new skills needed to succeed at work, whatever their age. This report shows the increasing importance of continued skills development for workers. Taking action now will mean businesses can continue to thrive in an increasingly competitive environment and support valued employees with the skills training they need to stay in rewarding work for longer.

Nupur Mallick
HR Director, TCS UK

Acknowledgements

Executive summary

The ageing population is altering the age demographics of the UK's workforce, with many employers seeing significant parts of their workforce moving into retirement, and struggling to recruit 'young talent'. At the same time, employers are transitioning into the digital era and seeking new skills to fulfil new jobs created by automation and technological advancement. The UK is already facing talent and skills gaps, and with fewer younger people set to enter the workforce, the recruitment, retention, and retraining of older workers is key.

Through a survey of 2,000 employees, 1,000 of whom were over 50[1], this report provides a unique insight into older workers' attitudes towards skills, training and automation in the digital era. Workers over 50 make up a significant and growing part of the future workforce, but most are not benefitting from the work opportunities that the digital revolution offers. Employers are not training them in the 'human' or technical skills that they need to succeed in the digital era – especially women and manual workers. Older workers are also less likely than younger workers to feel their employer informs them about the impact of automation and technology on their role. This is an opportunity for employers to challenge assumptions about older workers' ambition and capability, and upskill them *now*, to prevent skills shortages in the future.

Top line recommendations for business

- **Make training, development and work opportunities more accessible to older workers** – particularly those in lower skilled and lower paid work.

- **Create a company culture of lifelong learning**, making it fun, accessible and inclusive. Design and provide a wider range of training options, including a strong focus on continuous learning.

- **Understand your older workers' appetite for learning and development**. Seek to understand the personal and cultural barriers that may be preventing them from taking up opportunities.

- **Develop targeted training and reskilling support for specific groups** of older workers, such as women, older workers with health conditions or disabilities, and those in lower-skilled manual work.

- **Introduce mid-life career reviews** to encourage older employees to think through their options and provide space for broader conversations with managers about plans for the future.

- **Make recruitment more age-inclusive,** for example, open up apprenticeships, internships and development programmes to people of all ages, including those seeking career changes later in life.

- **Clearly communicate the impact of automation and technology on the business, and demystify key future skills**, particularly technology and digital skills.

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[1] See appendix for breakdown of questionnaire respondents

Contents

The importance of older workers in the digital era

The changing talent pool

The cause of population ageing is multifaceted: the birth rate has declined year on year since 2012 (Office for National Statistics); the baby boomers are moving towards retirement; and people are living longer, healthier and generally wealthier lives than any previous generation. This demographic change means that the talent pool of the future is older.

Population and workforce figures are a clear indication of an ageing workforce and demonstrate why it is crucial for employers to shift their focus to older workers:

- Mercer's 2017 analysis has found that from 2016 to 2017, growth in the 50+ age group in the workforce was more than four times as much as the under 35s. The number of over 50s in the overall workforce has increased by 230,000 in the last year, whilst the number of under 50s has barely changed – an increase of just 2,000.[1]

- The over 50 population will continue to grow, whilst the younger age group will decline: it is estimated that there will be an increase of 800,000 individuals aged 50-64 years old and a decline of 300,000 individuals aged 16-24 between 2017 and 2022.[2]

- People aged 50 years and over will make up 50% of the UK population by the mid-2030s.

Depending on the outcome of Brexit negotiations, government policy and the performance of the UK economy, it is possible that net migration will fall in the coming years, putting further pressure on UK employers to find the right skills.[3] For many decades, the UK has relied on millions of workers from overseas to fill skills gaps and workforce shortages across sectors and regions.[4] This has been particularly pronounced since 2004, with 1.6 million more EU migrants working in the UK.[5] Since 2013 specifically, the levels of EU and non-EU born immigration into the UK workforce has filled a gap left by the ageing of the nation's UK-born workforce which sees more in this group leave the workforce - through retirement, emigration or death - than enter it. Businesses need to make the most of the older workforce.

"Particularly with Brexit don't forget, which really complicates things, we have fewer people to pull from. So the older workforce is going to be a rich tapestry that you won't want to ignore. Or you ignore at your peril, if you don't support them and help them through their ageing journey, because they can help your business to grow. You won't be able to just go and recruit someone else who is 25 or 30 - there's going to be fewer people coming through." – Martin Jones, Managing Director, Home Instead Senior Care

New jobs and growing sectors

Technological advancement and automation is reshaping the economy and sectors and leading to new job and skills requirements. Automation may not lead to net job loss, because a wide range of new jobs and skills will be created. As in every industrial revolution, the nature of work changes but the economy grows and jobs follow. Manufacturing is shrinking, whereas education, health, care and business services are growing, in terms of the numbers of jobs.[6] However, there may be a lag between jobs lost and new jobs created, and those that are made redundant need to have the opportunity to retrain – at any age and stage of working life. Older workers in lower skilled work are particularly at risk, since many of the activities they do can be automated, they are more likely to be made redundant than their younger counterparts, and once out of work, they find it harder to get back into work.

Whilst the share of the workforce changes in different sectors, technology and automation are driving the need for new skills and jobs across all sectors. Employers are now seeking people with technical and digital skills, as well as the 'human' skills that automation has not yet been able to emulate – the skills which require cognitive and social abilities. There may also be a demand for 'cobotics', where employees work alongside machines, and the ability to understand how technology can be applied.[7]

"In the old days – well, two to three years ago - it was the businesses that were driving technology. We would have business requirements set by a client, and we would create software to meet those business requirements. The fundamental change is that it is technology which is now driving business. It is the capability you have in technology that makes business go in a certain direction now." – Sunil Chopra, Vice President and Global Head of Sales, TCS

Finding people with the necessary 'future skills' is becoming increasingly difficult. Within the next two decades, 90% of jobs will require some digital proficiency, yet 23% of adults lack basic digital skills.[8] The UK also has a shortage of high-skilled technicians below graduate level: only 10% of adults hold technical education as their highest qualification, placing the UK 16th out of the 20 OECD countries.[9] To adapt, employers must take action to retrain and upskill older workers, as well as younger people.

In this report, we refer to 'future skills'; skills that cannot yet be automated and are increasingly sought after in the transition to the digital era. We reviewed analyses of automatable activities by multiple organisations, and placed prominence on the OECD[10] and the Global McKinsey Institute[11] analyses. Future skills include:

- Influencing others
- Training others
- Presenting, public speaking
- People management and planning the activities of others
- Expertise for decision making
- Solving complex problems
- Communication or stakeholder engagement
- Customer service

- Reading professional publications and books
- Writing articles
- Programming and coding
- Using communication software
- Complex maths and statistics
- Using the internet for research
- Digital skills such as website or app design, graphic design, film and photo editing and production

"Increasingly I need people who understand, not necessarily how to code, but to think about technology and how technology might be deployed. And then I need people with empathy, and who are wise in life, who can help people. So, I need people who are the humans who can effectively connect people with technology." - Steven Cooper, CEO Barclaycard Business Solutions, Barclays

Making the most of older workers

The population is ageing during our transition to the digital era, therefore employers must ensure skills and talent strategies take into account older workers. At the moment, employment and training opportunities are not working for many people over 50. Our Missing Million research found a million people over 50 who are out of work, but would like to be working if the right opportunities were available. Of those over 50 who leave the workforce early, the most common reasons are: a lack of appropriate skills; redundancy[12] - particularly amongst the lower paid and lower-skilled;[13] being unable to balance work with caring responsibilities; and chronic health conditions.

In addition, age stereotypes, discrimination and bias is holding too many older workers back from continued learning and development. Those over 50 are no longer seen as dynamic, active contributors seeking new challenges.[14] Older workers feel they are less likely to be offered training as they age, and that organisations prioritise younger workers.[15] They also feel that organisations fail to distinguish between those still motivated to develop and those winding down to retirement.[16]

Older workers are a diverse group of people, with different employment histories, socio-economic status, and family context. They have experienced different barriers to work or progression. Yet social norms and age bias affects almost all older workers. With the population and workforce getting older, employers will need to tackle the everyday age-bias preventing older workers from thriving, and open up opportunities for development and progression to people of all ages and stages of their career. They will also need to adapt their hiring practices to make the most of the transferrable experience and skills of older workers – no longer will they be able to rely on younger workers to fill skills and workforce gaps.

"We're learning that experience disappears if we're not careful. People with experience, and who have made mistakes in the past, are very helpful to learn from. Technology has changed but the issues are the same." - Shaun Crawford, Global Insurance Leader, EY

Research findings

Do older workers have the necessary future skills and are they being trained?

Less likely to use key 'future skills' in their jobs
Older workers are less likely to say they're using future skills than their younger counterparts, including technological and digital skills, skills related to 'knowledge work', and 'human skills'.

|	
Technical and digital	Only 5% of those in their 60s and 10% in their 50s say they use programming language 'often' or 'constantly', compared to 23% aged 18-30 and 28% in their 30s. 12% of workers in their 50s say they never use communication software in their current job, such as sending emails or instant messaging - a larger proportion than in any other age group.
Knowledge	Older workers are also less likely to say they use skills related to knowledge work in their current job, including reading professional publications and books, writing articles and reports, and complex maths or statistics. The only activity in which there is no age-related trend is using the internet for work-related research.
Human	The likelihood of saying they carry out the 'human' activities as part of their current role also declines with age. Older workers are less likely to say they train others, present, plan the activities of others, influence others, or solve complex problems.

Unsurprisingly, older workers in lower skilled, manual work are less likely to be using the skills required in the digital era than those in professional, managerial or technical work. Yet even within each occupational level, from directors through to manual workers, older workers are less likely than their younger counterparts to say they use the future skills.

Older female workers are even less likely than older male workers to say they use future skills. For example, 25% of men in their 50s and 26% in their 60s say they 'never' do complex maths or statistics, but this increases to 35% of women in their 50s and 49% of women in their 60s. This trend is apparent across all future skills, and the gap is particularly large amongst those in their 60s. Whether this is perception or reality is unclear, but the significant difference is concerning. The findings could be influenced by the fact that older female respondents are significantly less likely to be working in senior manager, professional or technical roles compared to their male counterparts, and more likely to work in semi or unskilled manual labour, such as retail assistants.

Less likely to receive training they need to succeed in the future workplace

Many older workers are not being trained in key future skills, particularly those in lower-skilled work. Computer skills are the most common future skills that older workers have been trained in, yet the numbers are still fairly low: only 38% of respondents in their 50s and 36% in their 60s. The proportion of older workers being trained in other future skills falls even further, and they are less likely than younger respondents to have had training in them. Overall, older female respondents are less likely to have been trained in these skills than their male peers, with the exceptions of customer service and computer skills.

Figure 2: The skills that older male and female respondents have received training for in their current role
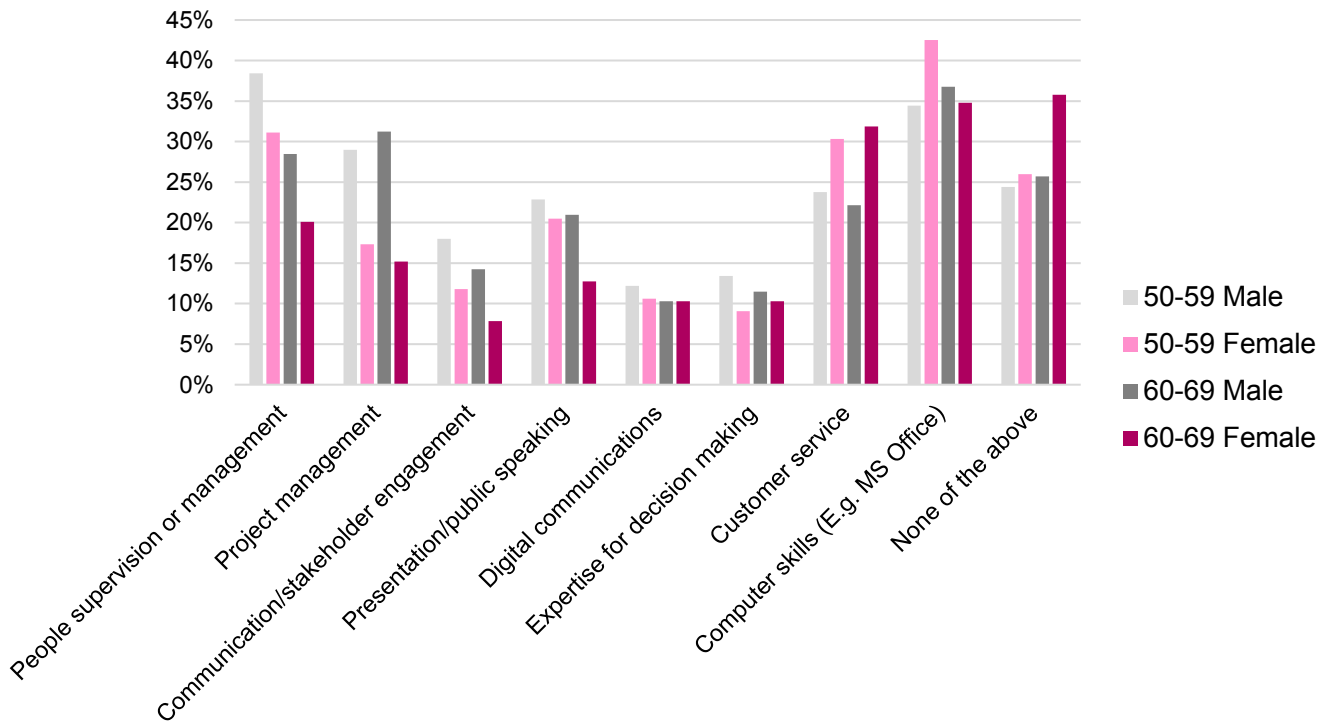

Employers need to present training opportunities in a way that engages older workers

Older workers are less likely to feel their employer encourages them to take up learning and development opportunities. The likelihood declines with age: 44% of those aged 18-29 and 30-39 and 32% of those aged 40-49 feel their employer encourages them, compared to only 25% of those aged 50-59 and 22% of those aged 60-69. Lifelong learning and continued upskilling is increasingly important as the nature of work changes and new skills are needed in the digital era. This presents an opportunity for employers to engage their older employees on their development, ensuring that employees at all levels and ages are offered a range of opportunities and support.

Currently, older respondents do not necessarily see the value in training for these skills, particularly if they are not a core part of their current role. Older manual workers are significantly less likely to say they want their employer to offer this training than their counterparts in managerial, professional and technical work, as well as younger workers.

Figure 3: The skills that respondents want to receive training in, all age groups
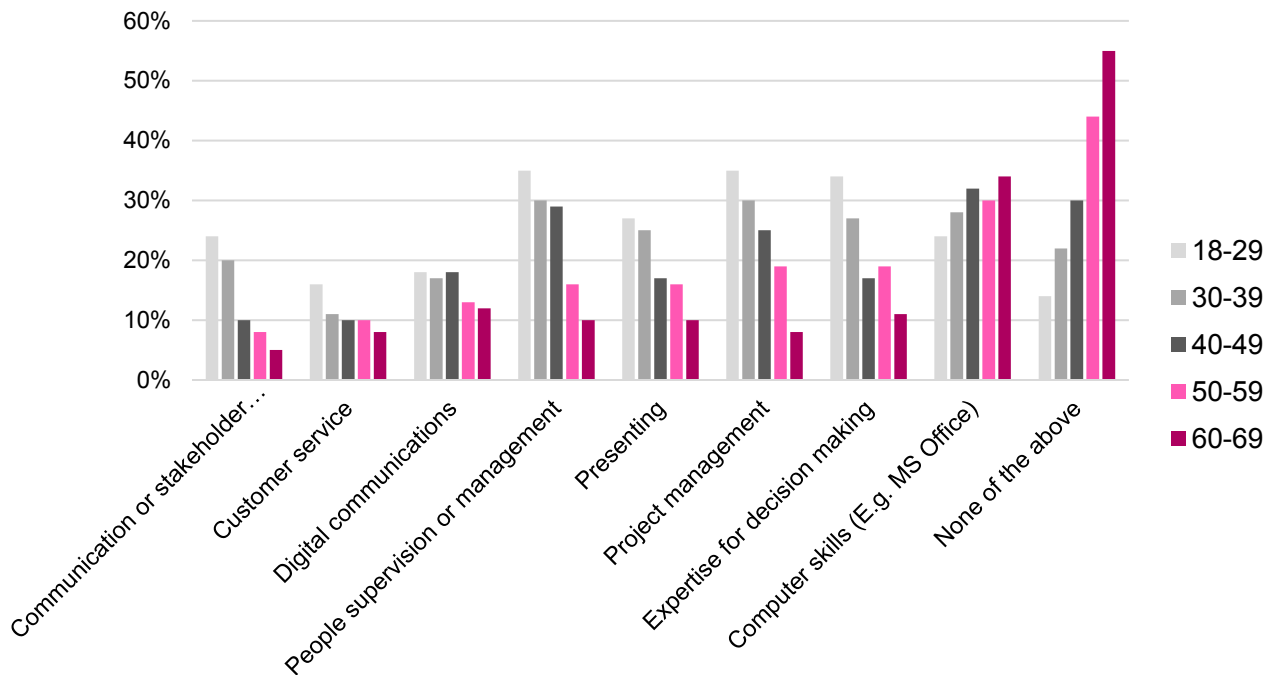
In terms of digital and technology skills, the most sought-after training for older workers is for data analysis, report creation and writing, data organisation and storage - yet those respondents are still in the minority (fewer than 1 in 4). Older workers are less likely than younger workers to state they'd like their employer to offer training in digital skills, but this does not reflect a lack of confidence: over two thirds of older workers are confident in their ability to learn new digital skills. With that said, an age confidence gap exists; younger workers are more likely to feel confident in learning new digital skills.

Understanding what motivates older workers to take up training is key
Many older workers are seeking opportunities to learn and develop, but they do not find all types of workplace training effective. Previous research found that older workers are not less motivated to learn and work, but prefer informal training which is directly relevant, and utilises their current abilities.[17] Employers must ensure that they actively encourage those who are less confident, and offer a range of training opportunities so that older workers can choose their preferred type of training.

Our survey found that the type of training older workers find most effective for their personal development or career progression is **continued on-the-job learning** (82% of workers in their 50s, and 81% in their 60s, find this effective). They are more likely than the younger workers to believe on-the-job training is better than structured training programmes and they are less concerned that their training offers qualifications.

"Re-training is a priority. We need to have training in place to ensure older workers are ready and able to bring experience to bear - especially older workers." – Andy Briggs, CEO, Aviva UK Insurance

"We have a very different methodology and mindset to a lot of other organisations. Whenever we're going to do a new job, it's absolutely accepted that to do that job, you'll probably have to do some training […] We have worked hard to remove or mitigate any bias in our processes, which

means for me, I can look at a training course photograph and there might be somebody who's 52 on the course and somebody that's 22." - Sarah Maskell, Wing Commander, RAF

Do older workers feel informed about the changing nature of work?

Less likely to feel they are being informed about automation

Whilst most older respondents recognise that technology is impacting their workplace in some way, very few refer to automation causing redundancies in their organisation or affecting their own job. Older workers are less likely than younger workers to believe automation will affect their job and were the least likely to believe their role could ever be fully automated.

When asked whether they thought technology or automation would affect their role at all within the next 10 years, 33% of those in their 60s – the highest of all age groups - and 25% in their 50s say that technology and automation would have zero impact on their job. When asked why, the majority of those in their 50s and 60s (53% and 56% respectively) selected "you cannot automate what I do". The next most common answer for those in their 50s and 60s was "my job requires technical skills that only humans can do." (45% and 46% respectively).

"Advancing technology will change the way we receive and store information, but the scrutiny it requires will still need human interaction." – Survey respondent, 54

"I don't think our customers would like it. We need to talk to our customers to find out their orders and give advice on their problems. Also, they like to have a chat in general - like we British do about the weather!" – Survey respondent, 58

"I am employed as a delivery driver of food products and until self-driving vehicles for delivery purposes are invented, my type of job is fairly safe. However, for the backroom staff that prepare my deliveries, I would imagine that some kind of automation could be made effective." – Survey respondent, 61

Despite this, older respondents were less likely than younger respondents to say that they use future skills as part of their current job. They were also more likely be employed in manual work, such as retail assistants, which has a higher chance of automation. They were less likely to be employed in managerial, professional and technical roles than the younger respondents - roles which are becoming increasingly important in the digital era.

While most respondents of all ages do not feel they are kept informed about the impact of automation and technology on their job or workplace, older respondents are the most likely to feel this. Clear communication about automation is especially important for those more likely to be affected, such as lower skilled manual workers, yet very few older manual workers feel their employers communicates to them.

"It's not so much the 'what' you do, it's the 'how' you do it. How you make it happen, how you get colleagues and customers to feel engaged in that process, and learning from that process as you go." - Steven Cooper, CEO Barclaycard Business Solutions, Barclays, on managing automation

Is there an age confidence gap?

Older employees are not necessarily planning career changes before they retire, so being aware of changes to their role in advance can help them prepare, emotionally and practically, for learning new skills - or even moving to a different sector. This is particularly important for lower skilled workers who may bear the brunt of the adjustment to digitisation.

Confidence in one's ability to find a job in a different sector within three months declines with age. Only 34% of people in their 60s and 42% of people in their 50s are confident in this, compared to 60% of those aged 18-29, 55% of those in their 30s and 46% in their 40s. Older women are less likely than older men to feel confident they could secure employment within three months. 38% of women and 46% of men in their 50s are confident. For those in their 60s, only 26% of women feel confident, compared to 40% of men. A combination of age and gender-based discrimination and bias in the employment market could be causing the gender confidence gap.

There are multiple reasons why older workers feel less confident in their ability to secure a new job: they may lack confidence that the recruitment process is bias-proof, and could be concerned that ageism will hold them back. Lower levels of confidence could also be internalised. Older workers are less likely than younger workers to have changed companies recently. Almost 1 in 4 older respondents changed companies over 20 years ago. 1 in 10 respondents in their 50s have never changed companies.

A combination of these factors may be why older workers are less likely to be planning career changes within the next five years, compared to their younger counterparts.

- Only 15% of respondents in their 50s and 7% in their 60s plan to be promoted to a more senior level in their current organisation or sector within the next five years.

- Only 19% of people in their 50s and 6% in their 60s plan to move into a different type of role (not necessarily a more senior level) within the next five years.

- Only 18% of those in their 50s and 8% in their 60s are planning to move to a different sector or industry in the next five years.

- Older manual workers are less likely to be planning a change in the next five years, either to a different type of role or promotion; the large majority plan to stay in their current role.

Our youth-focussed culture determines that once over 50, employees should be winding down for retirement. Indeed, many older workers may be planning for their retirement and may not want to change jobs or be promoted. But many older workers are not. Employers need to be able to distinguish between them, and offer tailored approaches to career conversations. Furthermore, rather than targeting younger employees, employers should encourage and promote learning and development across all age groups. This change in organisational culture will a give older workers greater confidence in the employment market and applying for progression opportunities.

Recommendations for action

- **Make training, development and work opportunities more accessible to older workers** – particularly those in lower skilled and lower paid work. Design and provide a wider range of training options, including a strong focus on continuous learning. Reverse mentoring can be a form of skills transfer between older and younger employees – or early and later stage career employees. Allow extra time for learning, not only are older people trying to learn about the topic but they are also trying to learn how to use the actual fabric of the learning delivery format – particularly if it is digital.

- **Create a company culture of lifelong learning**, making it fun, accessible and inclusive. It may be difficult to predict what skills your organisation will need in the next five years, so employers need to create a culture of learning that is responsive and adaptable, and enables all employees to be adept at learning, with particular support for older workers.

- **Understand your older workers' appetite for learning and development.** If older workers are less likely to take up training opportunities, seek feedback and explore the personal and external barriers that may be in their way. Take action to remove these barriers and actively encourage older employees, or those further into their career, to take up opportunities.

- **Develop targeted training and reskilling support for specific groups** of older workers, such as women, older workers with health conditions or disabilities, and those in lower-skilled manual work. Create programmes for people who have been out of work for some time, focussing on how to learn new skills, apply transferable skills, and prepare for new types of work.

- **Introduce mid-life career reviews** to encourage older employees to think through their options and provide space for broader conversations with managers about plans for the future.

- **Make recruitment more age-inclusive:** open up apprenticeships, internships and development programmes to people of all ages, including those seeking career changes later in life. Include different recruitment channels to attract older workers, such as face to face recruitment in the community. Start with the expectation that all new recruits will need training, not only young people.

- **Broaden the range of career pathways within your organisation**, to introduce more opportunities for career development for older workers. Recognise that older workers may not have the same level of qualifications as younger people, value their experience and transferable skills, and assume they will be equally as capable at learning new skills as younger people.

- **Clearly communicate the impact of automation and technology on the busienss, and demystify key future skills**, particularly technology and digital skills. Better recognise the 'human' skills, particularly customer service, and how they complement digital skills.

- **Use vehicles of communication that all older people feel comfortable with**. Consider various types of delivery, newsletters, posters, the written letter and direct phone calls when communicating to employees about training, learning and development, and the changing nature of work.

"We've got our Bolder Apprenticeship programme where we specifically look for people above 50, and particularly those who have been out of work for a period of time. That last bit isn't the defining criteria; people who are older than 50 is the defining criteria."
– Steven Cooper, CEO Barclaycard Business Solutions, Barclays

"When you join Mercer today you'll get experience in lots of different areas through a formal rotation programme. For more experienced staff, there is also an explicit programme to get exposure and work experience across different areas of our business."
– Fiona Dunsire, UK CEO, Mercer

"I think we need to start looking at flexibility, and not having this hard line that when someone gets to 65 then that's it for them. Well actually, it's not, and we should be treating them as though they were 35/45 and having a career review, and asking well where do you want to go next?"
– Martin Jones, Managing Director, Home Instead Senior care

"A lot of older people aren't necessarily looking for work – they're not unemployed, they're underemployed. They want something more rewarding, they want something that's going to give them some income and be part of the community. That's why we go out into the community to recruit."
– Martin Jones, Managing Director, Home Instead Senior care

"We've now extended our service for quite a lot of people to age 60. It might only seem five years, but for our people, that's a huge difference. And our number of people that are staying now over 55 is going up every year – in fact every quarter that I'm monitoring it."
– Sarah Maskell, Wing Commander, RAF

"I have seen examples where an employee assumes that if they want to change the way they work, they need to retire, but you don't need to go from 100% to zero. More flexibility around retirement can be dovetailed with more effective future workforce planning to ensure we keep positive talent in the organisation, supporting both colleagues and clients."
– Fiona Dunsire, UK CEO, Mercer

"We need to retain older people, even if it's on a contract which allows them to start the transition to retirement. We find a lot of retired people come back for 2 or 3 days a week, because they still have a lot they can contribute."
– Shaun Crawford, Global Insurance Leader, EY

"Older people will have a perspective that is different to younger people – why wouldn't you have a blend of that in terms of just input into your business, whatever your business is?"
– Steven Cooper, CEO Barclaycard Business Solutions, Barclays

Research methodology

This was a UK-focussed research project taking place during the summer of 2017. The research involved a comprehensive questionnaire for employees and semi-structured interviews with employers from the Age at Work leadership team and Sunil Chopra, Vice President and Global Head of Sales, TCS.

The questionnaire was informed by a review of relevant and recent literature and research. 1,877 employees took part and 56% of respondents were over 50 years old. This provided a representative group of older workers, as well as the opportunity to compare the views of older and younger respondents.

Appendix

Age	
18 to 29	7%
30 to 39	18%
40 to 49	18%
50 to 59	31%
60 to 69	24%
Over 70	1%

Gender	
Female	52%
Male	48%

Long standing illness or disability	
Yes	15%
No	83%
Prefer not to say	2%

Employment status	
Employed full time	76%
Employed part time	24%

Ethnicity	
White: English, Welsh, Northern Irish, Scottish, British	87%
White: Irish	2%
White: Gypsy or Irish Traveller	0%
White: Other White	5%
Mixed/multiple ethnic groups: White and Black Caribbean	0%
Mixed/multiple ethnic groups: White and Black Africa	0%
Mixed/multiple ethnic groups: White and Asian	0%
Mixed/multiple ethnic groups: other mixed	0%
Asian/Asian British: Indian	1%
Asian/Asian British: Pakistani	1%
Asian/Asian British: Bangladeshi	0%
Asian/Asian British: Chinese	1%
Asian/Asian British: other Asian	1%
Black/African/Caribbean/Black British: African	1%
Black/African/Caribbean/Black British: Caribbean	1%
Black/African/Caribbean/Black British: other Black	0%
Other ethnic group: Arab	0%
Other ethnic group: any other ethnic group	0%
Prefer not to say	1%

Sector	
Agriculture, Forestry and Fishing	1%
Mining and quarrying	0%
Electricity, Gas, Steam and Air Conditioning supply	1%
Water supply, Sewerage, and waste management	1%
Construction	5%
Wholesale & retail, repair of motor vehicles	6%
Transport & storage	5%
Accommodation and food services	2%
Information and communication	7%
Financial and insurance	8%
Real estate	1%
Professional, scientific & technical service activities	6%
Public administration and defence	1%
Education	14%
Human health and social work	11%
Arts, entertainment and recreation	2%
Other service activities	6%
Other (please specify)	19%

Area of the UK respondents live in	
London	16%
South East	19%
South West	8%
West Midlands	7%
North West	13%
North East	4%
Yorkshire and the Humber	8%
East Midlands	6%
East of England	8%
Scotland	7%
Wales	3%

Total number of respondents	1,877

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