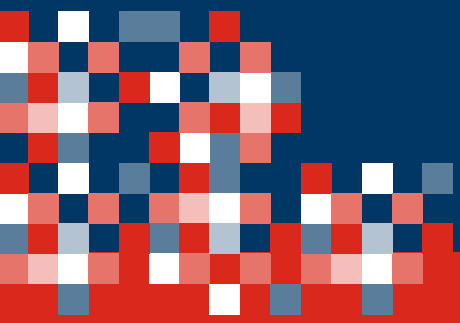
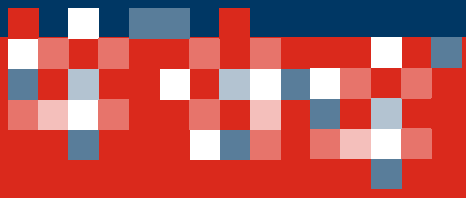
Disconnected?

Exploring the digital skills gap





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WorldSkills UK foreword

Championing advanced digital skills

Essential, and in demand; this is stark message from employers about the absolute necessity of high-quality digital skills. With digital technology now embedded in so many parts of life, from virtual GP appointments and online retail to industry 4.0 and the rise of fintech, it has never been such an important time to look at the digital skills our economy needs.

In 2020 we published a report 'Answering the call for digital skills excellence', setting out the importance of providing high-quality digital skills based on data from the consultancy EY on the rapid increase in international investors looking to invest in the UK's growing digital economy. 'Disconnected? Exploring the digital skills gap' in partnership with Learning and Work Institute and Enginuity confirms the importance of digital skills to the UK economy and helps us understand the supply and demand issues around the digital skills gap, from the points of view of young people and employers.

The evidence in this report is in many ways very encouraging, not least by showing that young people and employers agree that digital skills are vital in every sector of the economy.

The evidence in this report is in many ways very encouraging, not least by showing that young people and employers agree that digital skills are vital in every sector of the economy. The research also confirms that there is a digital skills gap and by understanding this gap in more detail we have identified ways in which we can use our careers advocacy work and high-quality skills development programmes to make a difference.

The findings show, firstly, that there is a mismatch between supply and demand: the majority of our employer poll believe that their reliance on digital skills will increase in the future, yet analysis of digital skills provision in education shows that the numbers training in digital skills is on a downward trend. Secondly, the digital skills gap has a strong regional bias with digital skills and career opportunities overly concentrated in London even though we know there are hotspots of digital skills being developed in South Wales, Glasgow, Manchester and many other places across the UK. Thirdly, there is a significant gender gap, with young women reporting that they are both less confident and less interested in digital careers compared to young men.

WorldSkills UK is committed to acting on the outcomes of this research to improve the opportunities for more young people, and help ensure more employers can be confident about accessing the high-quality digital skills they need to help power our economic recovery. So, in this report we are committing to:

1. **Show young people that digital careers are for everyone**
   We will use our careers advocacy programmes to engage 50,000 young people from all backgrounds over the next year to demonstrate the wealth of digital careers

opportunities available to them and the skills and training needed to achieve those aspirations. Through a social media campaign and our next Spotlight platforms in the Autumn, which has previously reached over 29,500 young people, we will use this research to create inspiring content for young people, introducing them to peer role models who use digital skills in their careers. We will ensure at least half of those role models are female, showing that digital careers have no gender.

2. **Embed digital skills in our development programmes in all parts of the UK**
   a. We will conduct a strategic review of our UK-wide competitions programme to get a comprehensive understanding of where basic and advanced digital skills are needed, and where they could be developed to encourage greater demonstration of high-quality digital skills standards across our 2022 national competitions cycle.

   b. We will lead the call for digital skills to be embedded in the next global review of WorldSkills standards so that world-class digital skills are expected alongside exceptional technical and mindset skills. This will enable our Training Managers to develop and test vital digital skills through our international training programme, and through our skills quality improvement programmes (Centre of Excellence, Innovation Network and Skills Development Hub) helping to embed high-quality digital skills in many different parts of the UK.

We will continue showcasing the most in demand new and emerging skills within our competitions portfolio nationally and internationally.

3. **Champion the development of excellence in advanced digital skills**
   We will continue showcasing the most in demand new and emerging skills within our competitions portfolio nationally and internationally. By striving to achieve ever higher standards in areas such as cyber security, industry 4.0, Building Information Modelling (BIM) and 3D game art, we will aim for a top 5 place in the global finals of the digital skills competitions in WorldSkills Lyon in 2024, with significant progress made towards this target at WorldSkills Shanghai in 2022. By providing world-class training opportunities, and learning from best practice in other major economies, we can help set a new benchmark for high-quality digital skills development across the UK, mainstreamed back into training and assessment practice via our skills quality improvement networks and programmes.

Dr Neil Bentley-Gockmann OBE
CEO, WorldSkills UK

Enginuity foreword

Digital Skills are the bedrock on which our future is built. Our recovery from a global pandemic heightens the focus and need for digital skills as the world of work evolves at a rapid pace.

This research confirms our thinking, building back better means investment in skills and underlines the imperative that we find solutions now. Our industrial competitors are ahead of the curve working day and night to ensure that their young people are fully equipped to be the best. We need to match or better their efforts.

Enginuity is the 'sector connector' for Engineering and advanced manufacturing, but digital skills touch every sector, every job role, every worker. The Covid Pandemic has heightened endemic failings in the education of our nation.

This research confirms our thinking, building back better means investment in skills and underlines the imperative that we find solutions now.

From the basics of being able to create documents, presentations and simple spreadsheets, to staying connected through social media, email, communication channels such as Teams and Zoom, to advanced skills covering digital marketing, user experience, web analytics and Artificial Intelligence, the fourth Industrial Revolution and the Internet of Things is moving at a pace far faster than anything we have seen before.

The challenge ahead touches all of us in different ways – inclusion remains top of the agenda – ensuring every young person has the opportunity to move into meaningful work and that means ensuring opportunities are available to learn and upskill.

Levels of deprivation should not restrict young people from reaching their true potential, and as employers look for talent in new and different ways this means using digital technology to engage and excite young people to enabling and rewarding careers.

We have much work to do, and Enginuity will be playing its part.

Lucy Thompson
Chief People and Transformation Officer, Enginuity

Executive summary

This report explores digital skills and the future of the labour market in the UK. The report examines the perspectives of employers in terms of demand for skills and the digital skills gap, as well as the perspective young people have of digital skills. The report is based on new surveys of over 1,000 businesses, and over 2,000 young people, as well as an employer focus group and a review of existing evidence.

Young people have been hit by a double-whammy of disrupted education and labour market disadvantage as a result of the pandemic. The crisis has caused millions of young people to miss months of education, contributing to widening educational inequalities. The economic impact of the pandemic has hit the young hardest, with those aged 16-24 accounting for three in five jobs lost.

Digital skills will be crucial for the future of the UK economy as we emerge from the coronavirus pandemic. Improving digital skills will both help us build on the UK's status as a world-leader in digital tech, and help drive growth, productivity and innovation across the rest of the economy. Supporting young people to develop the digital skills that employers need – both through schools, further education, apprenticeships and higher education – will be vital to helping them succeed in the labour market of the future.

Employers and digital skills

There is significant employer demand for digital skills. Alongside literacy and numeracy, basic digital skills have become essential skills for the modern world of work[1]. Over nine in ten (92%) businesses say that having a basic level of digital skills is important for employees at their organisation, and four in five (82%) job vacancies ask for digital skills. Alongside the near-universal demand for basic digital skills, many employers require advanced digital skills, with one in four employers (27%) saying that the majority of their workers require skills at this level[2]. Demand for advanced digital skills has increased in recent years, and it is set to go on rising; three in five employers (60%) expect their reliance on advanced digital skills to increase in the next five years.

92%

of businesses say that having a basic level of digital skills is important for employees

While demand for digital skills is particularly high in some sectors – such as IT and communications – it is notable that in every sector, there is a near universal demand for basic digital skills, and significant demand for advanced digital skills.

Many employers already face significant digital skills gaps, particularly relating to advanced digital skills. One in four (23%) employers say that their current workforce lacks the basic digital skills that they need, rising to over one in three (37%) in relation to advanced digital skills. Such skills gaps can have a significant impact on businesses; three in four (76%) businesses say that a lack of digital skills would affect the profitability of their business. There are also concerns about whether provision of digital skills is kept up to date with the rapidly changing demands of employers. While many employers are hopeful that digital skills gaps will improve in the future, the evidence casts doubt on this confidence. While demand for digital skills is set to increase rapidly, the pipeline of digital skills through the education and skills system is not providing the skills at the scale we will need, and in both schools and further education, the number of people taking ICT courses has declined in recent years.

76%

of businesses say that a lack of digital skills would affect the profitability of their business

Employers who do face digital skills gaps tend to rely on on-the-job training and recruitment to fill these gaps. However, many employers have struggled to recruit workers with digital skills that they need, particularly advanced digital skills, and employer investment in training in the UK is low compared to other advanced economies, and has declined in recent years.

1 By basic digital skills, we mean a proficiency with common software such as Microsoft Word, excel, PowerPoint; ability to process digital information and content; ability to communicate digitally; and the ability to learn new digital skills etc

2 By 'advanced digital skills' we mean a good knowledge across a range of digital skills, as well as in-depth specialist knowledge in one or more area, such as computer aided design, coding, specialist digital software

Young people and digital skills

Encouragingly, young people seem to recognise just how crucial digital skills are for them to succeed in the labour market of the future. Nearly nine in ten (88%) of young people say that digital skills will be essential for their career.

Young people are 'digital natives' who have grown up surrounded by digital technology, and the majority (62%) are confident that they have the basic digital skills that employers need. However, fewer than one in five (18%) young people are very confident they have the advanced digital skills that employers need.

88%

of young people say that digital skills will be essential for their career

Many young people are interested in pursuing a career that requires advanced digital skills, but there is a significant gender gap. Three in five (62%) young males are interested in a digital career, compared to just two in five (42%) young females, and there is a similar gender gap in young peoples' confidence in their digital skills. This reflects stark gender gaps in participation in ICT courses at school, in apprenticeships, in higher education, and in the digital tech workforce.

Half (51%) of young people are interested in a career which will require advanced digital skills. Young people are keen to continue upskilling throughout their careers, with seven in ten (70%) saying they want an employer that invests in their digital skills.

70%

of young people say they want an employer that invests in their digital skills

While there is significant interest in digital skills, there remains a digital divide, with many young people in digital poverty. On the eve of the pandemic, nearly one in ten (9%) young people had no access to a laptop, desktop or tablet at home. Digital poverty is particularly prevalent among those from lower socio-economic groups, where one in five (21%) households with children have no access to an appropriate device, and over one in twenty (6%) have no access to the internet. This digital poverty has limited young peoples' ability to learn during lockdown, contributing to educational inequalities.

The skills system and digital skills

The government sees improving digital skills as a key priority which is central both to the UK Digital Strategy, and to the recent Skills for Jobs White Paper on post-16 technical education.

However, while there has been steady growth in participation in computer sciences at undergraduate, and rapid growth at postgraduate level, participation in ICT subjects in school has declined in recent years, as have enrolments and achievements in ICT subjects in further education, while apprenticeship starts in ICT have remained broadly stable. In addition to the challenge around the education system, the UK also suffers from low levels of employer investment in skills.

Alongside boosting the number of people taking part in ICT a major focus of recent reforms has been on making the system more 'employer-led', and ensuiring that provision focuses on the skills that employers need.

Levelling up digital skills – patterns of demand and supply across the UK

Ensuring all young people have the digital skills that our future economy needs will be crucial both to economic competitiveness and to social justice.

While demand for digital skills is significant across all regions, London has both the highest level of demand both for basic and advanced digital skills, and the highest prevalence of digital skills gaps. This reflects both the thriving digital tech sector in the capital, and the concentration of high-skill jobs. The capital also has the highest level of apprenticeships of any region. Given the growing importance of digital skills, this imbalance in both demand for and supply of digital skills poses challenges for the levelling up agenda.

All this suggests a major increase in ambition – both from government, from employers and from providers – is necessary in order to meet future digital skills needs. Ensuring all young people have the digital skills that our future economy needs will be crucial both to economic competitiveness and to social justice. The recent Skills for Jobs White Paper and the upcoming UK digital skills strategy are an opportunity to drive a step-change on digital skills. Government, employers, providers, local leaders and other stakeholders all have a role to play in delivering on this agenda.

Introduction

This report focuses on digital skills and the future of the labour market. The report examines the perspectives of employers in terms of demand for skills and the digital skills gap, as well as the perspective of young people of digital skills and their own future careers.

The report was commissioned by Worldskills UK and Enginuity, with the research carried out by Learning and Work Institute.

The report is based on:

- an **evidence review**, which explored existing literature and data relating to young people and digital skills
- an **employer survey** of HR decision-makers in 1,004 businesses from across Great Britain. The survey was carried out by YouGov between 11-23 February 2021, using their HR decision-maker panel. The sample is representative of the wider business population
- a **young people survey** of 2,017 young people aged 16-24 across the UK. The survey was carried out by Youthsight between 8-22 February 2021. The sample is representative of the wider population of young people across the UK
- a **focus group** on 24 February 2021 with eight employers representing key sectors of the UK economy.

Digital skills and the future of the economy

This chapter explores digital skills needs across the economy, now and in the future. It is based on a new survey of over 1,000 businesses from across Great Britain – which explored their digital skills needs, their digital skills gaps, and their perceptions of young people's digital skills needs – as well as a review of existing data on digital skills and the future of the economy.

Digital skills will be crucial for the future of the UK economy

432

number of foreign direct investment projects that the UK secured in 2019

Boosting digital skills will be crucial for the future of the UK economy after Coronavirus.

First, digital skills are vital for the future of the digital sector. We are already a world-leader in this sector; a recent report by EY found that the UK secured 432 foreign direct investment projects in 2019, 30% of the total for Europe, and more than France and Germany combined. The same report found that in a survey of over 500 international investors, digital was seen as offering among the highest growth potential for investment, second only to clean tech (EY 2020).

In order to support the continued growth of the digital tech sector, we will need to boost the supply of advanced digital skills in the UK. A report by UKCES found that an estimated 1.2 million new technical and digitally skilled people would be needed between 2015 and 2022 to satisfy employer skills needs (UKCES 2015).

However, digital skills are important far beyond the digital tech sector. Increasingly, advanced digital technology and the digital skills needed to exploit this technology, are vital across all sectors of the economy. Businesses in our survey highlighted the importance of advanced digital skills across a broad range of areas, with a particular emphasis on:

- helping to **grow** the business
- helping to improve **productivity**
- helping the business to **innovate**.

Improving digital skills is a key priority for the UK government. The UK digital strategy released in 2017 had a focus on digital skills and inclusion, which aimed to ensure that everyone could access the digital skills they need (DCMS 2017). The industrial strategy highlighted the central importance of digital for the future of the UK economy, and made driving up digital skills one of the priorities under the 'people' pillar (BEIS 2017). Most recently, the Skills for Jobs White Paper included an emphasis on the importance of digital skills for all, as well as highlighting the need to boost participation in higher level digital skills training (DfE 2021).

"From my company's perspective, advanced digital skills is what makes the difference. Frankly, we will not compete in the 21st century and beyond if we don't get this right." ***Engineering business***

The UK government is set to publish a new digital strategy in 2021, which aims to drive growth in the digital sector and the wider economy, ensuring that the UK maximises the benefits of a digital-led economic recovery (Dinenage 2020).

92%

of employers said that having a basic level of digital skills was important for employees at their organisation

Basic digital skills are now essential skills

Increasingly, basic digital skills[3] have become essential skills. Like basic literacy and basic numeracy, demand for basic digital skills is near-universal among employers, and a pre-requisite for access to most jobs.

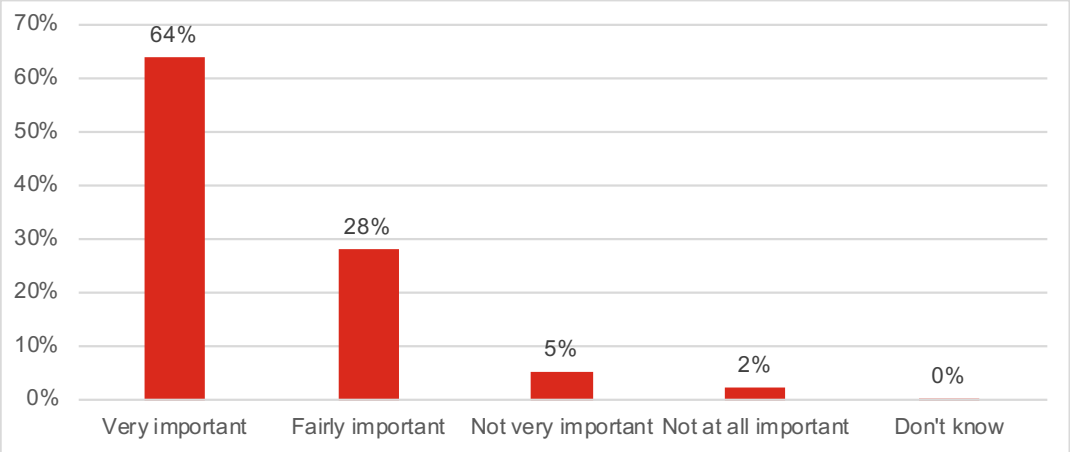
An analysis of job adverts conducted in 2019 by Burning Glass for Department for Digital, Culture, Media and Sport found that digital skills were essential entry requirement for two-thirds of UK occupations, required in 82 per cent of job roles advertised online (DCMS and Burning Glass 2019).

This level of demand was reflected in our survey of 1,000 British businesses. Over nine in ten (92%) employers said that having a basic level of digital skills was important for employees at their organisation, with two in three (64%) saying this was very important.

3 There are numerous definitions of basic, essential or foundational digital skills. Department for Education define essential digital skills as having a minimum level of competency across digital foundational skills, communication, handling information and content, transacting, problem solving, and being safe and legal online (DfE 2019). Building on Hecker and Lopest 2019, by 'basic digital skills, we mean a proficiency with common software such as Microsoft Word, excel, PowerPoint; ability to process digital information and content; ability to communicate digitally; and the ability to learn new digital skills etc.

Figure 1: **Two thirds of employers say basic digital skills are very important for their workers**

Importance of basic digital skills for your workforce, all employers



Source: YougGov employer survey, 2021

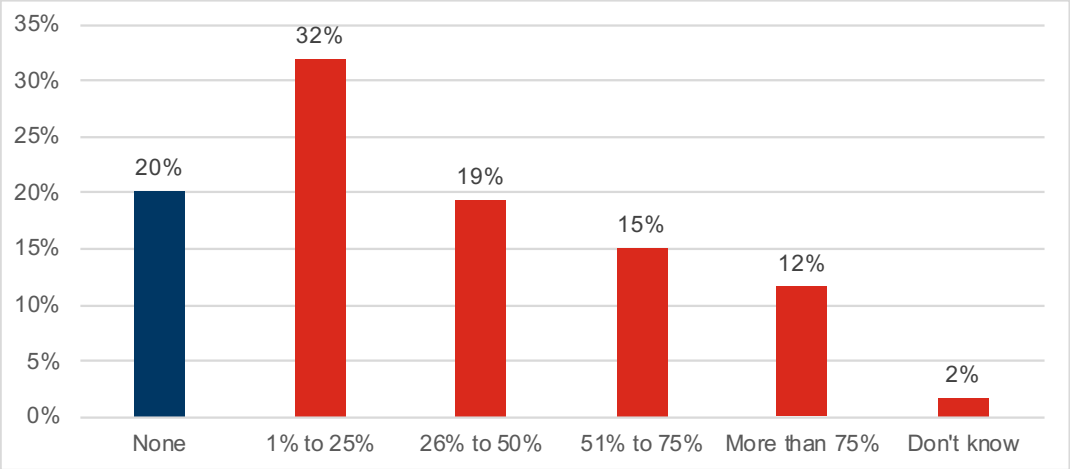
Demand for advanced digital skills is high and increasing

While demand for basic digital skills is near universal, demand for advanced digital skills[4] is high, it has been increasing in recent years, and it is set to grow significantly in the coming years.

Figure 2 below shows how many roles require advanced digital skills at British businesses. Just one in five (20%) businesses said that none of their workers required advanced digital skills, while over one in four (27%) said that the majority of their roles required advanced digital skills.

Figure 2: **One in four employers say most of their workers require advanced digital skills**

Proportion of workforce who require advanced digital skills, all employers



Source: YougGov employer survey, 2021

4 By 'advanced digital skills' we mean a good knowledge across a range of digital skills, as well as in-depth specialist knowledge in one or more area, such as computer aided design, coding, specialist digital software etc. (Kipster 2018)

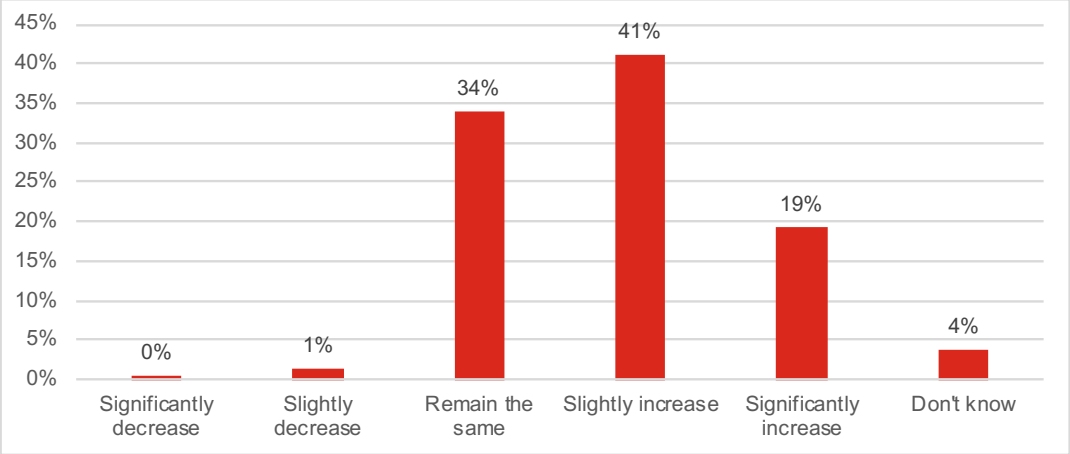
There is undoubtedly a trend towards greater digitalisation of jobs. One study examined the proportion of jobs in the US requiring digital skills from 2002 to 2016. This found that the proportion of jobs defined as having a high digital content more than quadrupled over this period (to 23 per cent), whilst the share of jobs with low digital content which required lower levels of digital skills fell sharply (from 56 to 30 per cent) (Hecker and Loprest 2019).

Demand for advanced digital skills is likely to rise substantially in the coming years. A recent survey conducted by CBI in 2019 found that three in five (58%) of employers expected they would need significantly more advanced digital skills in the next five years (CBI and Tata 2019).

Our employer survey also suggests that the level of demand for digital skills across the labour market is set to increase rapidly in the coming years. As figure 3 below shows, two in five (41%) employers say that they expect their reliance on advanced digital skills will increase slightly in the next five years, with one in five (19%) saying that they expect demand to increase significantly over that period.

Figure 3: **Three in five employers expect reliance on digital skills to increase**

How reliance on digital skills will change in next five years, all employers



Source: YougGov employer survey, 2021

There is already a labour market premium on advanced digital skills, and this is likely to increase in the future as demand for these skills grows. A recent study of job adverts in the UK found that roles requiring advanced digital skills offered salaries which were 40% higher on average than jobs which did not require such skills (DCMS and Burning Glass 2019). Jobs which require more advanced digital skills are less likely to be vulnerable to automation than those requiring basic digital skills (Kipster 2018).

Demand for digital skills go well beyond the digital sector

When thinking about demand for digital skills, there can be a tendency to focus on the digital sector. However, while the digital sector is an important and growing part of our economy, digital skills are increasingly vital across all sectors of the economy.

100%

of media, marketing, advertising and PR employers saw basic digital skills as important for employees

The demand for advanced digital skills is no longer limited to specialist roles in IT. An analysis of job vacancies in 2019 found that over two in three (68%) postings requesting these skills were outside of IT roles, with many being in lower-skill roles (DCMS and Burning Glass 2019). Even occupations that have not traditionally required workers to use digital technology – such as social care and hospitality – are increasingly demanding digital skills as such technology is adopted.

Our employer survey found that the proportion of employers who saw basic digital skills as important for employees was particularly high in certain sectors – including media, marketing, advertising and PR (100%), IT and telecoms (99%), and finance and accounting (97%). However, even in the industry with the lowest proportion – manufacturing – nearly nine in ten (87%) employers still said that basic digital skills were important for their workers. Similarly, while demand for advanced digital skills was highest in IT and telecoms, there is significant demand for these skills across all industries.

Employers face significant digital skills gaps

While digital skills are becoming increasingly important for employers across all sectors, many employers say they have skills gaps in their workforce in relation to basic digital skills and advanced digital skills, and many businesses have struggled to recruit workers with the digital skills they need.

Recent research from the OU found that 88% of businesses across the UK – 244,000 in total – lacked at least one area of digital skills with a survey by Microsoft from 2020 finding that 69% of business leaders believed they had a digital skills gap (OU 2019 and Microsoft 2020). The Employer Skills Survey – a large national survey of employer skills needs and training patterns found that nearly one in three (30%) skills shortage vacancies in 2019 were due to a lack of digital skills (DfE 2020).

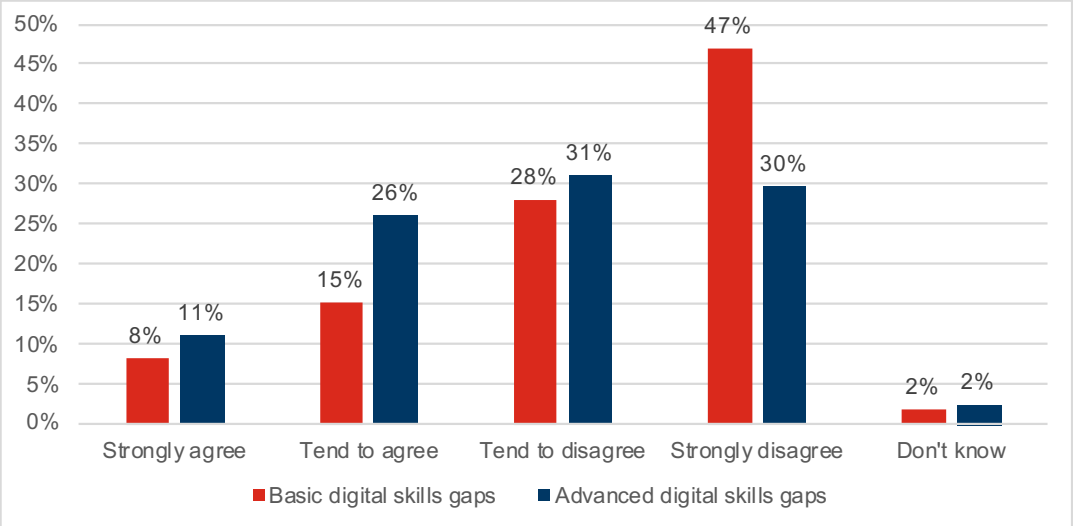
244,000

number of businesses across the UK that lacked at least one area of digital skills

As figure 4 below shows, nearly one in four (23%) businesses in our employer survey said that they face skills gaps with their current workforce in relation to basic digital skills. Skills gaps are yet more prevalent in relation to advanced digital skills. Over one in three (37%) employers say that they face skills gaps with their current workforce for advanced digital skills.

Figure 4: **Two in five businesses have a skills gap for advanced digital skills**

Organisation's workforce doesn't possess the basic/advanced digital skills the business needs, all employers



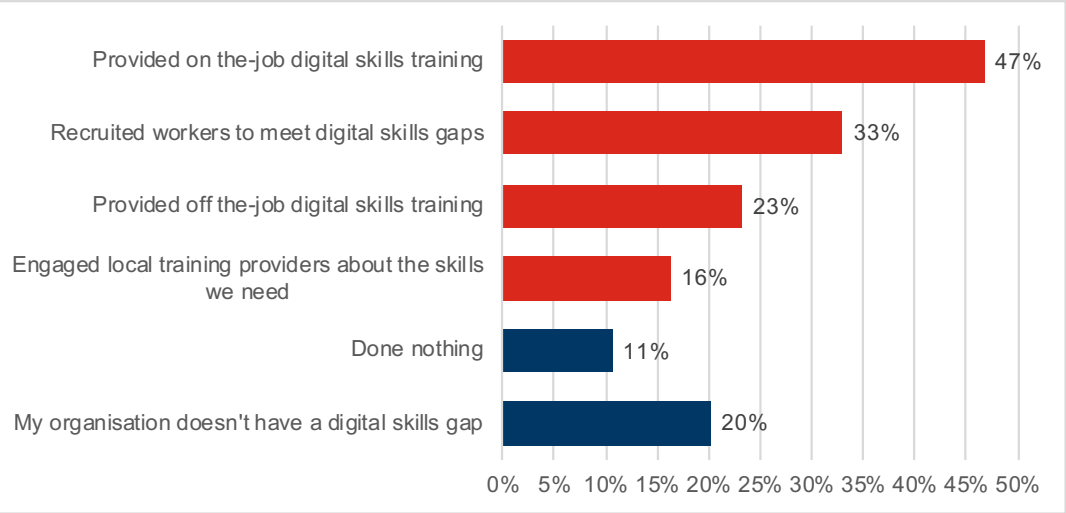
Source: YougGov employer survey, 2021

In addition to facing skills gaps with their current workforce, many employers are struggling to recruit the workers with the digital skills that they need. Again, this seems to be more of a challenge around advanced digital skills: 24% of employers say they struggled to recruit workers with the basic digital skills that they need, while 41% have struggled to recruit workers with the advanced digital skills that they need.

When it comes to addressing skills gaps, as figure 5 below shows, employers are most likely to rely on on-the-job digital skills training (47%) and recruiting workers with the required skills.

Figure 5: **Employers rely on on-the-job training and recruitment to fill skills gaps**

How your organisation responds to digital skills gaps, all employers



Source: YougGov employer survey, 2021

While many businesses are currently struggling with digital skills gaps, there is optimism that the situation will improve in the future. Over two in five (44%) of employers expect their digital skills gaps to get better in the next five years, with the same number (44%) expecting them to remain the same, and just 6% expecting the situation will get worse. However, this confidence may be misplaced. As we have seen, demand for digital skills is set to grow rapidly in the coming years, while – as we will show below – the skills pipeline coming through the education system is not increasing at sufficient pace to meet future demand.

76%

of businesses said that a lack of digital skills would affect the profitability of their business

Digital skills gaps are holding back growth

There is clear evidence that digital skills gaps in the UK are a drag on growth and productivity.

Recent analysis conducted by Nesta analysis in 2018 showed that data-driven skills shortages are already costing the UK economy £2 billion a year (NESTA 2018). The Department for Education's Employer Skills Survey found that employers facing skills shortage vacancies suffered from increased workload for other staff (84%), difficulties in meeting customer service objectives (49%), increased operating costs (45%) and lost business to competitors (40%) (DfE 2020).

In our survey, businesses highlighted advanced digital skills as being vital for unlocking growth, for boosting productivity, and for supporting innovation. Three in four businesses (76%) said that a lack of digital skills would affect the profitability of their business.

Young people and digital skills

Having explored employer skills needs, in this section we examine young people's views of digital skills and digital careers. This section is based on a new survey of over 2,000 young people to explore: their perceptions of their digital skills, their awareness of employer digital skills needs, and their interest in a career in the digital sector. This chapter explores the findings of the survey, along with other data relating to young people and digital skills.

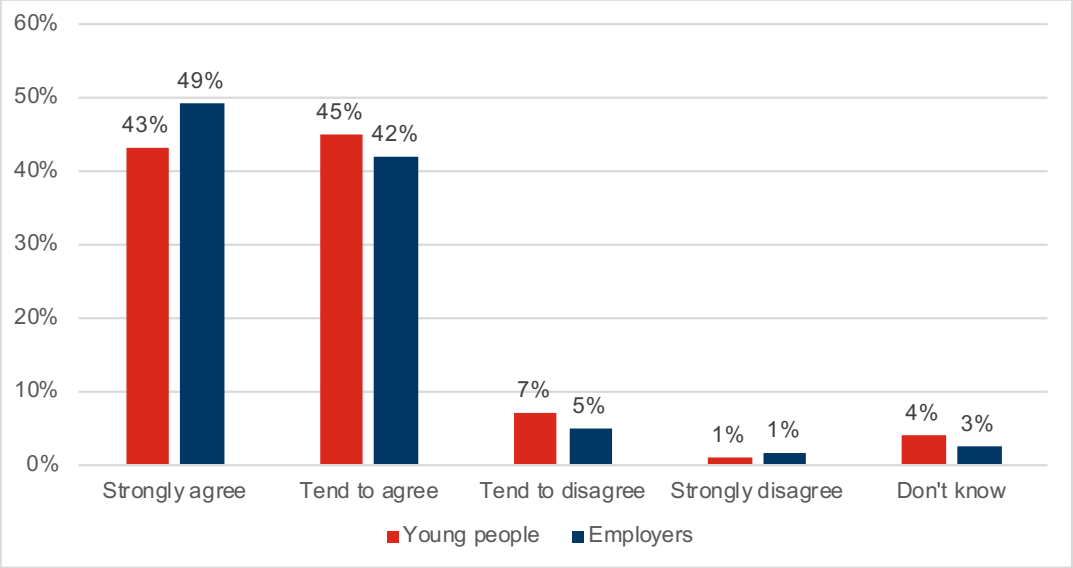
Young people recognise that digital skills are vital for their future career

Our survey found that young people are acutely aware of the importance of digital skills for their future career. Nearly nine in ten (88%) of young people say that digital skills will be essential for their career. This was higher still among young people on apprenticeships (97%).

This broadly matches the proportion of businesses (91%) who say that digital skills are vital for young people's future career.

Figure 6: **Young people and employers see digital skills as vital to succeed**

Digital skills will be essential for my career/will be essential for young people



Source: Youthsight young people survey, 2021 and YougGov employer survey, 2021

62%

of young people say they are very confident that they have the basic digital skills that employers need

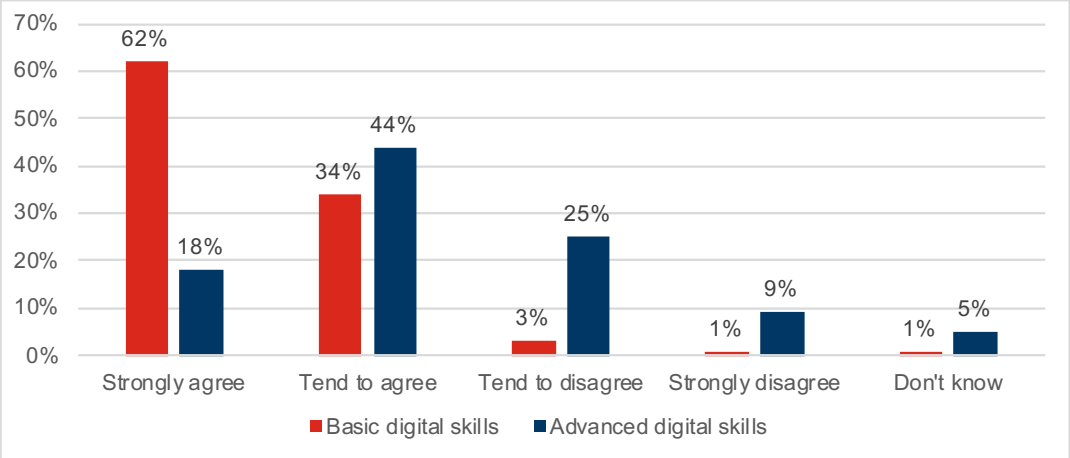
Young people are confident in their basic digital skills but less confident they have the advanced skills employers need

Young people are very confident that they have the basic digital skills that employers need, but they are less confident that they have the advanced digital skills that are needed.

The majority – 62% – of young people say they are very confident that they have the basic digital skills that employers need. However, just one in five (18%) of young people say they are very confident that they have the advanced digital skills that employers need. Confidence in advanced digital skills was higher among young people studying in FE colleges, with one in four (25%) being very confident that they have the advanced digital skills that employers need.

Figure 7: **Young people are confident they have the basic skills employers need**

Do you have the basic/advanced digital skills that employers need?



Source: Youthsight young people survey, 2021

78%

of businesses said that young people leaving education have the basic skills that they need

Again, young people's perceptions of their own digital skills appear to map quite closely onto employers' perceptions of young people's digital skills. Four in five (78%) businesses said that young people leaving education have the basic skills that they need, with fewer than one in five (17%) disagreeing. However, employers are less confident about young people's advanced digital skills; just half (48%) of businesses say that young people leaving full time education have the advanced digital skills that they need, with two in five (40%) disagreeing.

Many young people are interested in a digital career – but there is a large gender gap

There is significant interest among young people in pursuing a career that requires digital skills.

51%

of young people say that they are attracted to a career that requires advanced digital skills

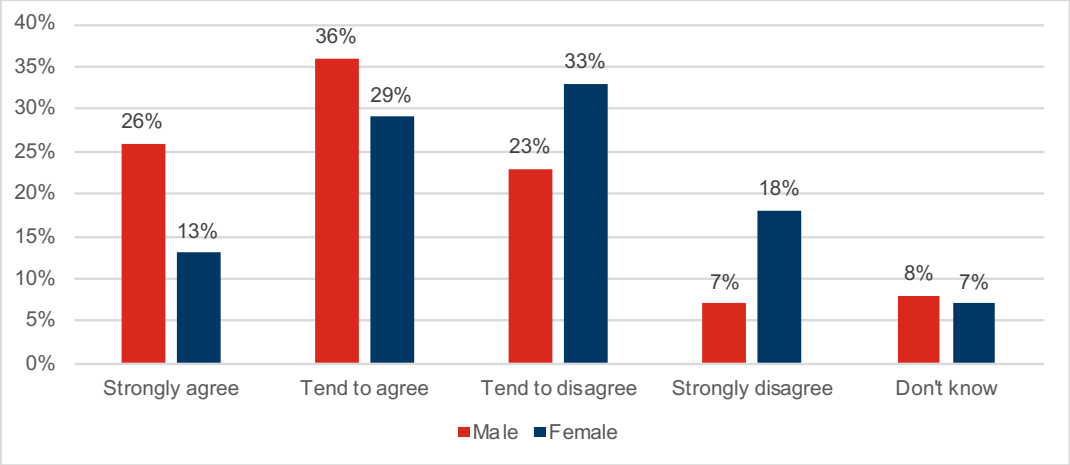
Half (51%) of young people say that they are attracted to a career that requires advanced digital skills. There is particularly strong interest among young males (62%), among young people in London (56%) and the East Midlands (56%), and among young people on an apprenticeship (61%).

The pandemic may have increased interest in this area, with one in two (51%) young people saying that it made them more likely to consider a career requiring advanced digital skills.

However, as figure 8 below shows, there is a significant gap in interest in a digital career. Three in four (62%) young males say that they are interested in pursuing a career that requires advanced digital skills, compared to just two in five (42%) of young females.

Figure 8: **There is a gender gap with females being far less attracted to a digital career**

Attraction to a career that requires advanced digital skills by gender



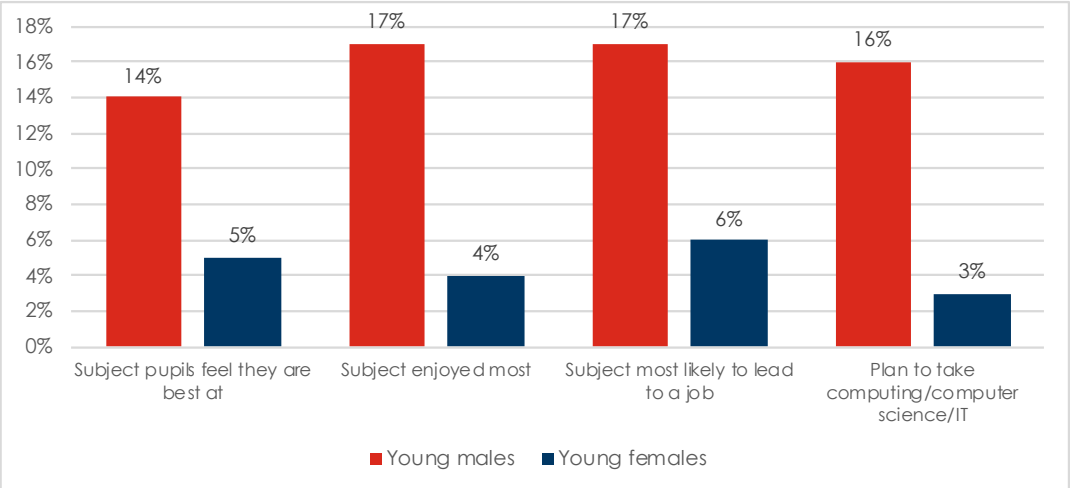
Source: Youthsight young people survey, 2021

This gender gap is visible both in wider surveys of young peoples' perceptions of digital subjects, in young peoples' participation in digital training, and in the digital tech sector too.

Figure 9 below highlights data from a recent Department for Education survey of 15 and 16 year olds' attitudes towards STEM subjects. It shows that young males are three times as likely to say that IT is their best subject, and that it is the subject most likely to lead to a job. Yong males are four times as likely to say IT is the subject they most enjoy, and they are over five times as likely to say that they plan to take an IT subject (computing, computer science, IT) at A Level (DfE 2019).

Figure 9: **There is a significant gender gap in relation to young peoples' perceptions of IT**

Perceptions of IT among pupils at key stage 4



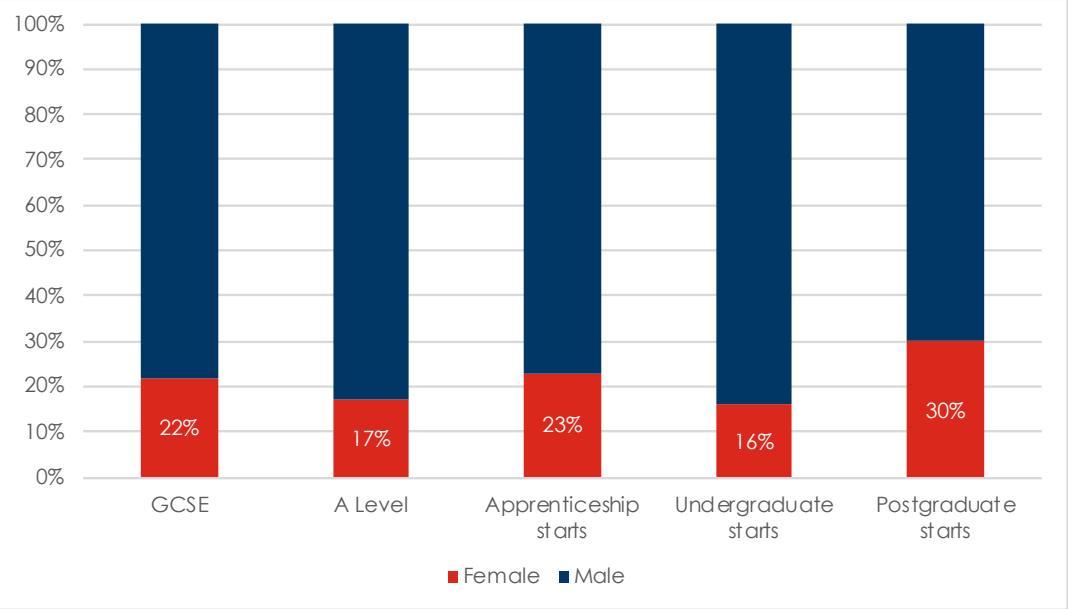
Source: DfE 2019

These perceptions of IT subjects are reflected in data on participation. In 2020, just one in four (23%) of Computer Science or ICT GCSE entrants were female, falling to one in six (17%) of A Level entrants (Education Data Lab 2021). In higher education, females made up just 16% of first years undergraduates in 2018/19 and 30% of postgraduates in 2018/19 (HESA 2020). There is a similar gap in participation in apprenticeships; females accounted for fewer than one in four (23%) of apprenticeship starts in information and communication technology in 2019/20 in England (DfE 2019).

This inequality in participation in digital subjects feeds through into inequality in the workforce. Just one in four of those working in the tech sector are females (PWC 2017).

Figure 10: **Females are under-represented throughout the education system**

Participation by gender in ICT training by gender, England and UK, latest available



Sources: Education Data Lab 2021, HESA 2020, DfE 2019[5]

Not all young people are getting the careers guidance they need

When asked why young people would not consider a career that requires advanced digital skills, the two most common answers were that young people felt they did not have the required skills or knowledge (41%) or that such a career sounded boring or uninteresting (30%). Young females were more likely to identify both of these factors as a reason to not consider a digital career.

5 GCSE and A Level data refer to student entries in England, Wales and Northern Ireland in 2020 for ICT and computer science. Appreniceship start data refer to apprenticeship starts in Information and Communication Technology in England in 2019/20. Undergraduate and postgraduate starts refer to firest year students on computer science courses in the UK in 2018/19

There appears to be some room for improvement in ensuring that all young people receive high quality information, advice and guidance. Just over half (53%) of young people agree that they have had adequate careers advice to be informed about careers open to them which require advanced digital skills, with nearly two in five (38%) disagreeing. Young males (59%) were significantly more likely to feel they had received adequate careers information and guidance relating to digital skills, as were young people studying on an apprenticeship (60%) and at an FE college (66%).

This area was also highlighted by participants in our employer round table, with some arguing that too many young people are not aware of the opportunities available through digital skills.

"[Many young people] aren't given the information required to truly understand what the opportunities associated with a career with digital skills is about" ***Engineering business***

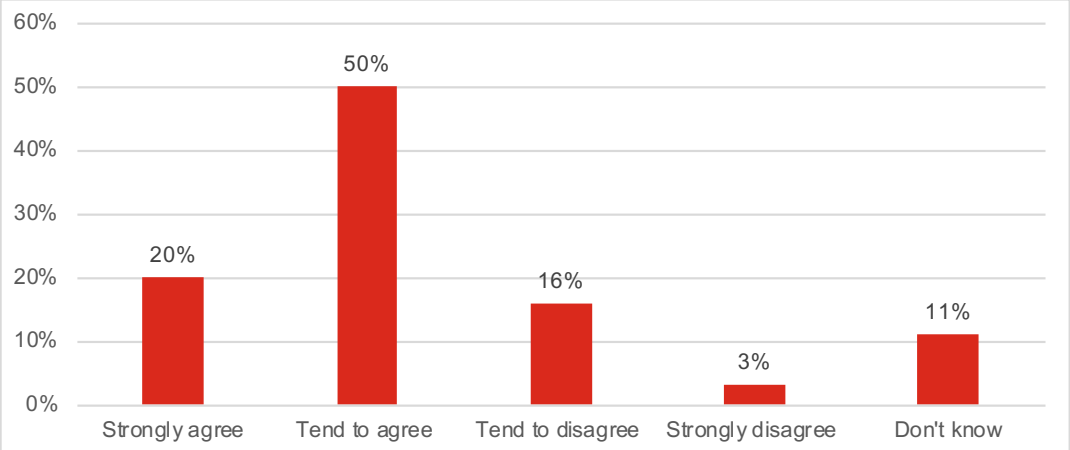
Young people expect their employer to invest in their digital skills

Young people have high expectations around employer investment in their skills. Seven in ten (70%) young people say that they expect their employer to invest in their digital skills.

However, as our employer survey found, only half of employers say they provide digital skills training. International surveys suggest that UK employers invest less in skills than in other advanced economies, and the amount invested in skills has declined in recent years.

Figure 11: **Seven in ten young people expect their employer to invest in their digital skills**

Expectations that your employer will invest in your digital skills, all young people



Source: Youthsight young people survey, 2021

Many young people face digital poverty

The coronavirus pandemic has thrown light on the challenge of digital poverty and how it affects young people.

With schools, colleges and universities having to move to remote education for several months during the pandemic, there has been growing recognition that many young people lack either the devices or the internet connections to access online learning.

A survey conducted by Ofcom on the eve of the pandemic in early 2020 found that nearly one in ten (9%) households with children across the UK had no access to a laptop, desktop or tablet at home (Ofcom 2020). Among all households with children, 2% had no access to internet, and 4% only had access through a phone's 3G, 4G or 5G network.

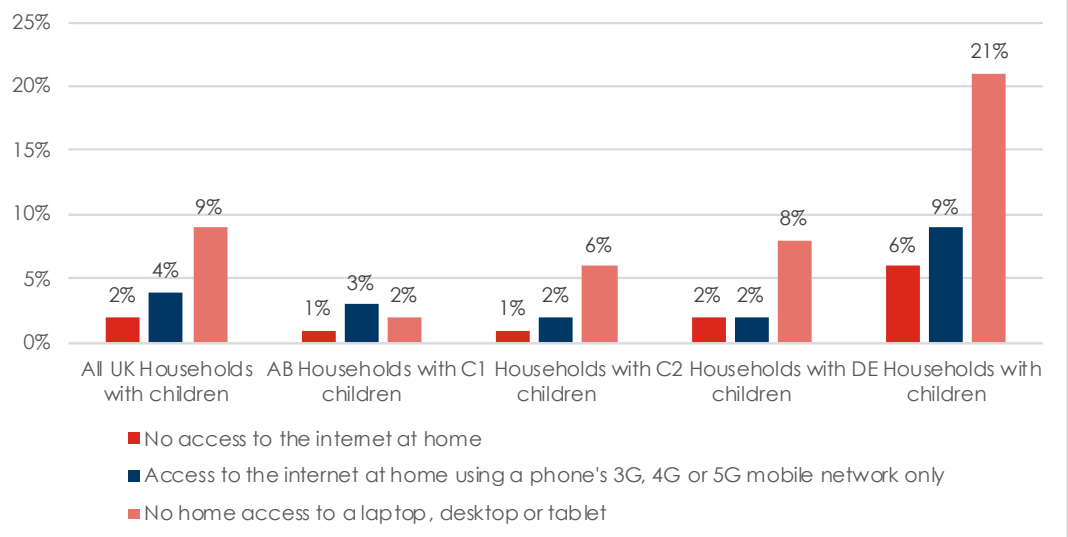
21%

of young people in lower socio-economic groups lacked access to a laptop, desktop or tablet

There is a very stark 'digital divide' both in access to the internet at home and access to devices suitable for learning. Young people from the lowest socio-economic groups (DE) were six times as likely to not have access to the internet, and ten times as likely to not have access to a laptop, desktop or tablet compared to young people from the highest socio-economic groups (AB).[6] Over one in five (21%) young people in lower socio-economic groups lacked access to such a device.

Figure 12: **Nearly one in ten households with children lack access to a laptop, desktop or tablet**

Access to internet and digital devices among households with children by socio-economic group (2020)



Source: Ofcom

6 AB, C1, C2 and DE are commonly-used classifications of socio-economic group, based on parental occupation. AB are higher socio-economic groups, corresponding to professional and managerial occupations, with DE being lower socio-economic groups, corresponding to semi-skilled/unskilled manual workers, and the unemployed.

Digital skills and the education system

Having considered employer demand for digital skills and young people's perceptions of their own digital skills, this section explores the digital skills system. It is based on analysis of the latest data of participation in digital training at school, in further education, in apprenticeships, higher education and in the workforce.

The current approach

Boosting digital skills is a priority for the UK government.

The UK digital strategy, released in 2017 included a focus on digital skills and inclusion, with the aim of giving everyone access to the digital skills they need (DCMS 2017). The strategy included a dual focus:

- **digital skills embedded in education** – this includes promoting computing in schools, and including relevant digital skills in all of the technical education routes
- **digital skills for digital jobs** – this focused on developing the specialist digital skills needed to maintain the UK's position as a leading global digital economy. Measures included the creation of a specialist digital route as one of the 15 technical education pathways, and the development of digital apprenticeships.

Digital skills were central to the recently released Skills for Jobs White Paper on post-16 technical education and training (DfE 2021). A central focus within the White Paper is to ensure the FE and skills system is more employer-led, so that it helps deliver the skills that employers need. In recognition of the increasing importance of basic digital skills across the labour market, the White Paper included an emphasis on 'English, maths and digital skills for everyone'. Beyond ensuring everyone is able to develop the basic digital skills that they need, the White Paper included a focus on advanced digital skills, including through new higher level technical qualifications in the digital route.

A central focus within the White Paper is to ensure the FE and skills system is more employer-led, so that it helps deliver the skills that employers need.

The UK government is due to publish a new digital strategy in 2021. Delayed form 2020 due to the coronavirus pandemic, the strategy will aims to support growth both in the digital sector and across the wider economy, ensuring that the UK maximises the benefits of a digital-led economic recovery (Dinenage 2020). Devolved authorities have also developed similar digital strategies.

Below we explore the data on participation in digital training across the education system. It shows that while there has been steady growth in participation in higher education, participation in IT subjects has declined at schools, and remained broadly stable in apprenticeships. This suggests a major increase in ambition is necessary in order to meet future employer skills needs.

Participation in digital skills at schools has declined

40%

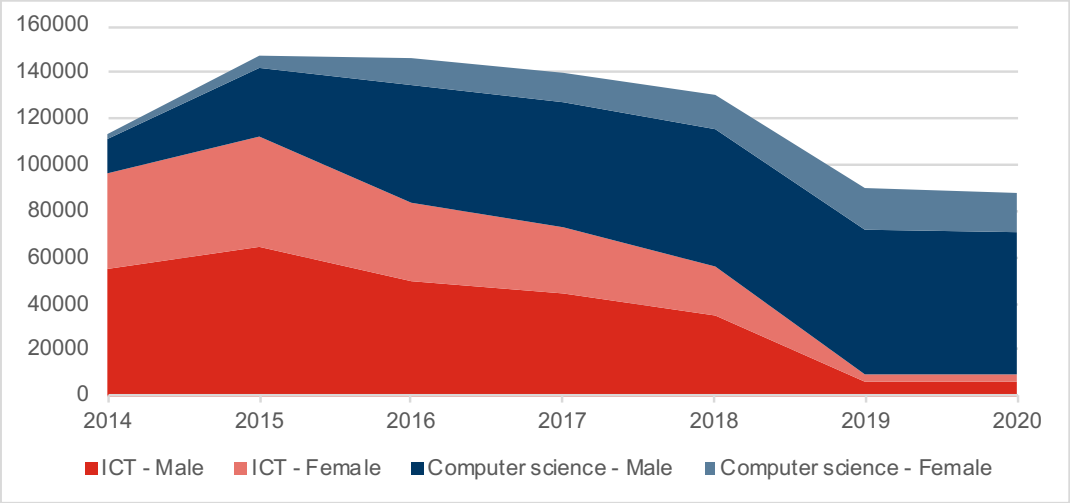
the drop in the number of GCSE entries in computing or information and communication technology (ICT)

The UK government and devolved governments have been seeking to boost participation in STEM subjects at GCSE. However, as figure 13 below shows, participation in IT subjects at GCSE in England, Wales and Northern Ireland have declined in every year since 2015. The number of GCSE entries in computing or information and communication technology (ICT) declined from 147,000 in 2015 to 88,000 in 2020, a drop of 40%.

This decline is largely explained by the government's attempt to phase out the ICT GCSE, which was seen as insufficiently rigorous or valued by employers, and to replace it with the more challenging computer science GCSE. However, while computer science entries have more than doubled since 2015, the increase has not made up for the fall in the number of pupils taking ICT.

Figure 13: **The number of pupils taking IT courses has declined every year since 2015**

GCSE entries in ICT and computer science by gender, UK, 2014-2020

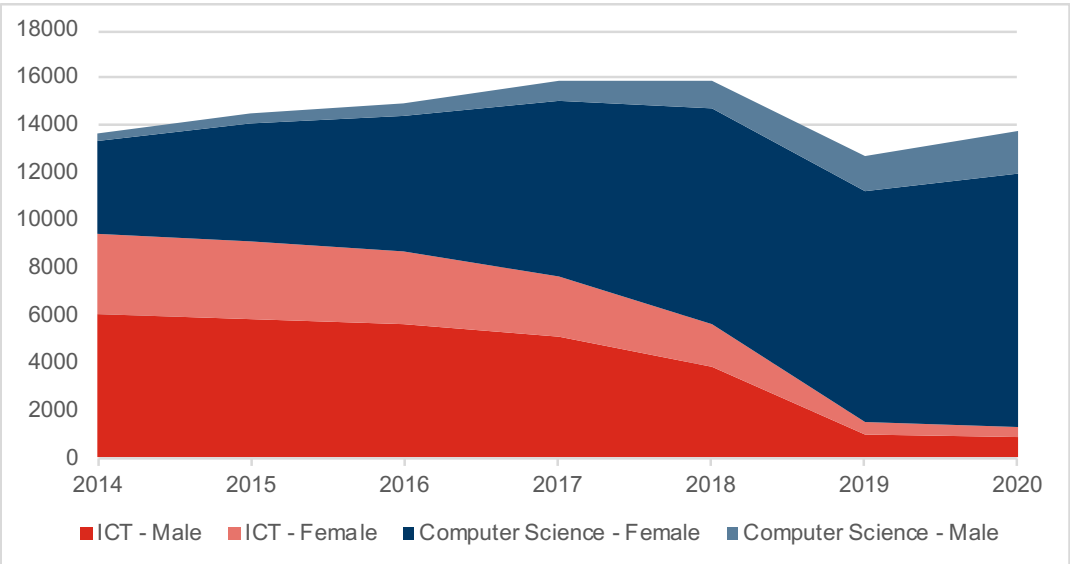


Source: Education Lab

The picture is slightly more positive when it comes to A-Level entries. Again, the number of entries in ICT across the UK has fallen significantly since 2015, but the growth in computer science has nearly made up for this decline. This means that between 2015 and 2020, the number of entries in IT subjects declined by only 5%, with the number increasing between 2019 and 2020.

Figure 14: **A-Level entrants in IT subjects have remained broadly flat since 2014**

A-Level entries in ICT and computer science by gender, UK, 2014-2020



Source: Education Lab

A recent study of computing in schools warned that not only has participation declined, but the hours spent teaching IT has also been cut back in recent years. The number of hours of computing/ICT taught in secondary schools across the UK dropped by over a third (36%) between 2012 and 2017. At Key Stage 4, the decline was even sharper, with a drop of nearly half (47%) in teaching hours (University of Roehampton 2019).

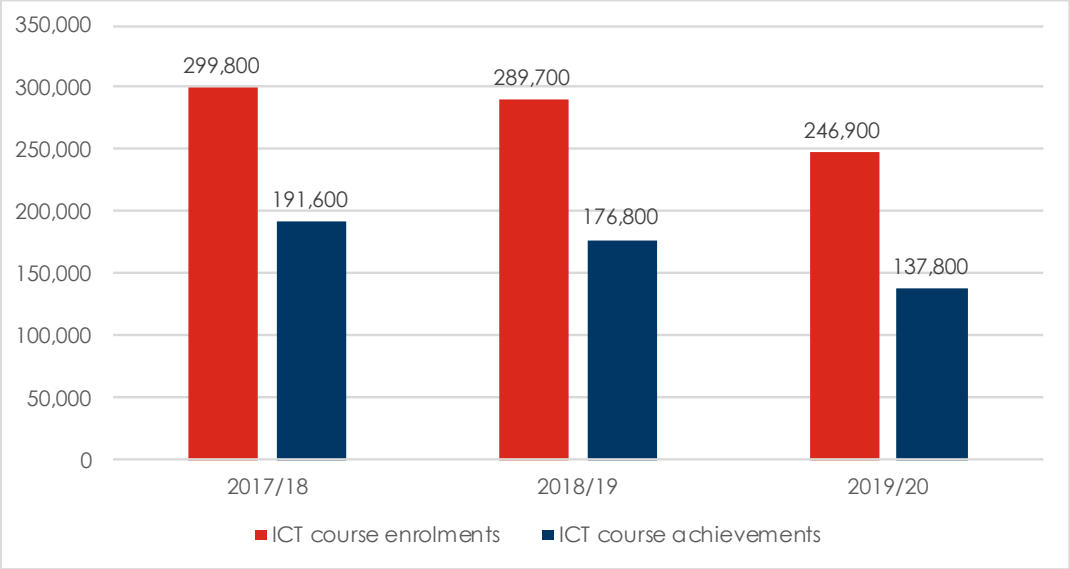
Participation in further education has declined

Participation in further education (FE) courses in ICT has declined in recent years.

In 2017/18 there were 300,000 enrolments in FE and skills courses in ICT in England, with 192,000 course achievements. By 2019/20, there were just 247,000 enrolments, and 138,000 completions, a decline of 18% and 28% respectively. In 2019/20, ICT courses accounted for 3.8% of all course enrolments and 3.8% of all course achievements.

Figure 15: **Enrolments in FE and skills courses in ICT has declined by a fifth**

Course enrolments and course achievements in ICT, 2017/18 – 2019/20, England



Source: DfE 2021

T Levels are currently being rolled-out across England in a major reform to the technical education system. These new courses are the technical equivalent of A Levels. Designed and developed in collaboration with employers, T Levels aim to give young people the skills they need to enter work, an apprenticeship or further study. T Levels last two years, and include an industry placement of at least 315 hours, or around 45 days (DfE 2020). As with apprenticeships, in addition to a focus on technical skills and knowledge specific to the subject area, all T Levels will include a focus on basic digital skills, alongside English and maths. There will be three T Levels focused specifically on digital skills:

- digital production, design and development (now available)
- digital business services (starting September 2021)
- digital support and services (starting September 2021)

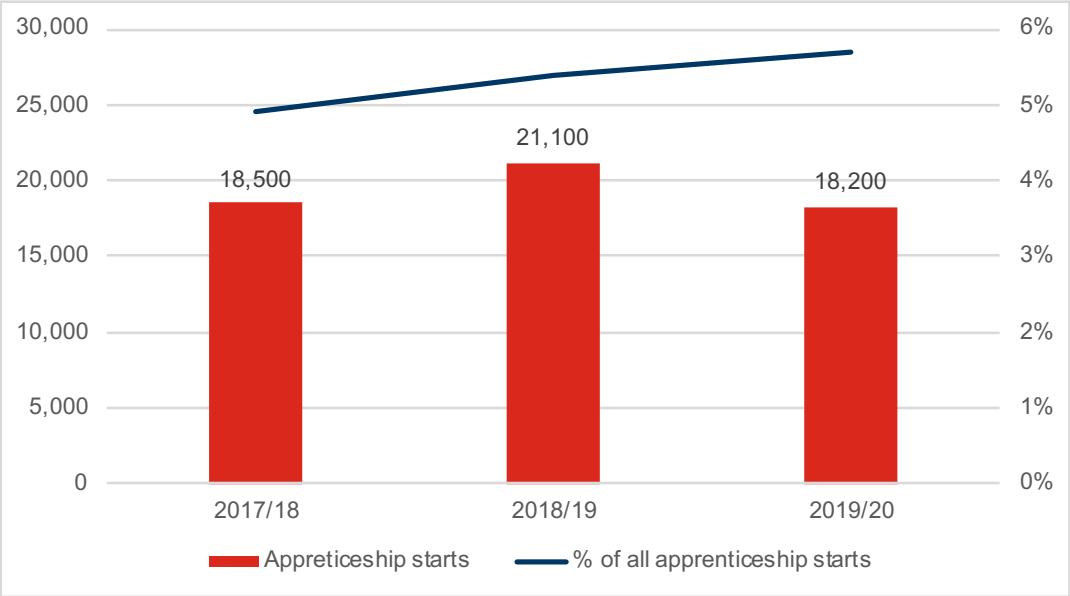
Digital apprenticeships remain relatively rare

The number of apprenticeships in information and communications technology (ICT) in England has remained flat in recent years. There were 18,500 starts in 2017/18, increasing to 21,100, in 2018/19, before falling back to 18,200 in 2019/20.

The proportion of all apprenticeship starts accounted for by ICT apprenticeships has increased slightly from 4.9% in 2017/18 to 6.0% in the first quarter of 2020/21. However, they still account for just over one in every 20 apprenticeship starts.

Figure 16: **The number of digital apprenticeships has remained broadly flat in recent years**

Number of ICT apprenticeship starts and proportion of all starts, 2017/18 – 2019/20, England



Source: DfE 2020b

Of the 18,200 apprenticeship starts in 2019/20, just one in five (18%) were for young people aged under 19 and two in five (39%) were aged 19 – 24. The remaining 43% of apprenticeship starts were accounted for by apprentices aged 25 and over (DfE 2020b). This reflects a broader trend we have seen in recent years – particularly since the introduction of the apprenticeship levy – whereby workers aged 25 and over have accounted for an increasing number of apprenticeship starts.

Apprenticeships in ICT are more likely to be taken at a higher level. As table 16 below shows, two in five (41%) of apprenticeship starts in ICT in 2019/20 were at higher or degree level, compared to just one in four (26%) of all apprenticeship starts.

Table 1: **ICT apprenticeships are more likely to be taken at a higher level**

Apprenticeship starts by level, ICT and all apprenticeships, 2019/20, England

Level	ICT apprenticeships (2019/20)	All apprenticeships (2019/20)
Intermediate (Level 2)	17%	31%
Advanced (Level 3)	43%	44%
Higher (Level 4+)	41%	26%

Source: DfE 2020b The most popular ICT apprenticeships in 2019/20 were IT and Telecoms professionals (27% of starts), Infrastructure technician (14%), data analyst (13%), and digital marketer (11%).

As with other forms of ICT training, females are significantly under-represented in in ICT apprenticeships. In 2019/20, females accounted for fewer than one in four (23%) apprenticeship starts (DfE 2020b).

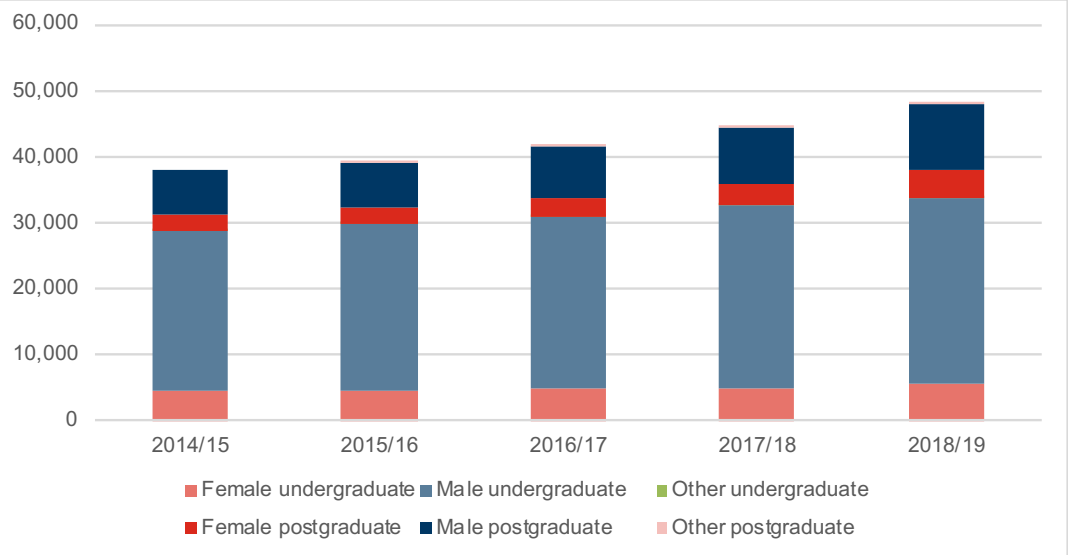
"The way that the young people can get armed with the right skills [is] the T Levels, the apprenticeships and so forth, working closely with the employers because it's only by understanding work problems and putting real work problems into their learning that they get to how to use these things. It's not just about the digital, it's not just about being able to switch it on... it's actually applying them to the real world." ***Energy business***

Participation in digital training in higher education is slowly increasing

There has been a slow but steady increase in participation in digital training in higher education in recent years. The number of people starting an undergraduate degree in computer science across the UK increased by 17% between 2014/15 and 2018/19, with the number of people starting a postgraduate degree increasing by over half (55%). The increase at both undergraduate (25%) and postgraduate (69%) has been faster for female students.

Figure 17: **Participation in computer science courses at undergraduate and postgraduate levels have been increasing**

Starts on computer science courses at undergraduate and postgraduate level by gender, UK, 2014/15 – 2018/19



Source: HESA 2020

Employer investment in skills in the UK is relatively low and it has declined

While many employers say they face skills gaps – including digital skills gaps – employer investment in skills in the UK is low compared to other advanced economies, and it has declined over time.

The latest international surveys carried out by Eurostat show that employers in the UK invest around half the EU average in continuing vocational education per employee (Eurostat 2015).

The Employer Skills Survey, a large and long-running nationwide survey of employer skills needs and training patterns, has shown a decline both in the amount invested per employee in recent years. The latest survey found that just two in three (61%) employers had provided training in the last year, a decline of 5 percentage points on the previous survey (DfE 2020).

There are concerns that provision does not always meet employer skills needs

In addition to the number of people taking part in digital skills training, the quality of training matters too. One key aspect of quality is the extent to which provision is based on employer skills needs, so that young people taking part in training are supported to develop economically valuable skills.

Ensuring provision matches employer skills needs has been a central focus of recent reforms to the technical education system

Ensuring provision matches employer skills needs has been a central focus of recent reforms to the technical education system. Reforms to the apprenticeship system in England with the introduction of apprenticeship standards, were intended to ensure that apprenticeships meet employer skills needs. Similarly, the design of T Levels is intended to ensure that FE provision gives young people the skills that employers need. More recently, the main focus of the Skills for Jobs White Paper was on ensuring that the FE system is employer-led.

However, our employer focus group highlighted concerns around the extent to which current provision meets the needs of businesses. Businesses felt that in many cases, provision had not kept up to date with rapidly changing employer demand.

"There seems to be a miss-match... you look at some of those qualifications, they haven't been updated for eight years, and tech's moving on rapidly, rapidly. We've already got employers with the original cyber apprenticeships that are telling us they're out of date because the technology has moved on in three years." ***Training provider***

Case study: Using digital skills excellence to meet employer demand

In recent years the application of Building Information Modelling (BIM) has become an in-demand digital skill which is transforming the construction sector, enabling the digital management and design of buildings and engineering processes.

Just under two years ago WorldSkills UK partnered with New College Lanarkshire (NCL) and Autodesk to develop BIM as a new competition programme. With other WorldSkills countries already competing in BIM nationally it was important to develop a pipeline of young people working towards high-quality BIM skills in the UK.

NCL has developed a strong reputation for its BIM course not least by engaging with over 100 construction companies to ensure that the design of their course reflected employer demand and equipped young people studying on the programme with the practical skills that employers need right now and in the near future.

NCL's resident BIM expert and educator Michael McGuire was appointed by WorldSkills UK as the UK BIM training manager and through a combination of Michael's expertise, our world-class competition training methodology and state of the art software provided by Autodesk, we developed the BIM competition and training criteria to recognise and develop the best talent in BIM right across the UK.

Although BIM is a new competition for WorldSkills UK it is already highly successful. Following our 2019 national competition finals four of our finalists gained employment with Baker Hicks who judged the competition. Three of the four now form part of WorldSkills UK's international squad, undergoing specialist coaching and pressure testing to hone their technical and mindset skills with the chance of representing the UK on the international stage for the first time in Shanghai 2022.

By developing this new competition, we are growing the UK's expertise in critical digital skills, we are encouraging young people to pursue this exciting career opportunity and we are creating increased demand from employers in this high value area. By continually benchmarking our BIM skills with international best practice through the WorldSkills network we can make sure we remain at the cutting edge of this fast-growing industry.

By continually benchmarking our Building Information Modelling skills with international best practice through the WorldSkills network we can make sure we remain at the cutting edge of this fast-growing industry

Levelling up digital skills – patterns of demand and supply across the UK

The government is seeking to level up prosperity across the UK. In this section we explore patterns in terms of digital skills across the country. Across all the data, there is a very clear picture; demand for and supply of digital skills in London is far higher than in any other part of the UK. This raises the concern that regional inequalities may grow as digital skills become ever more important in the future.

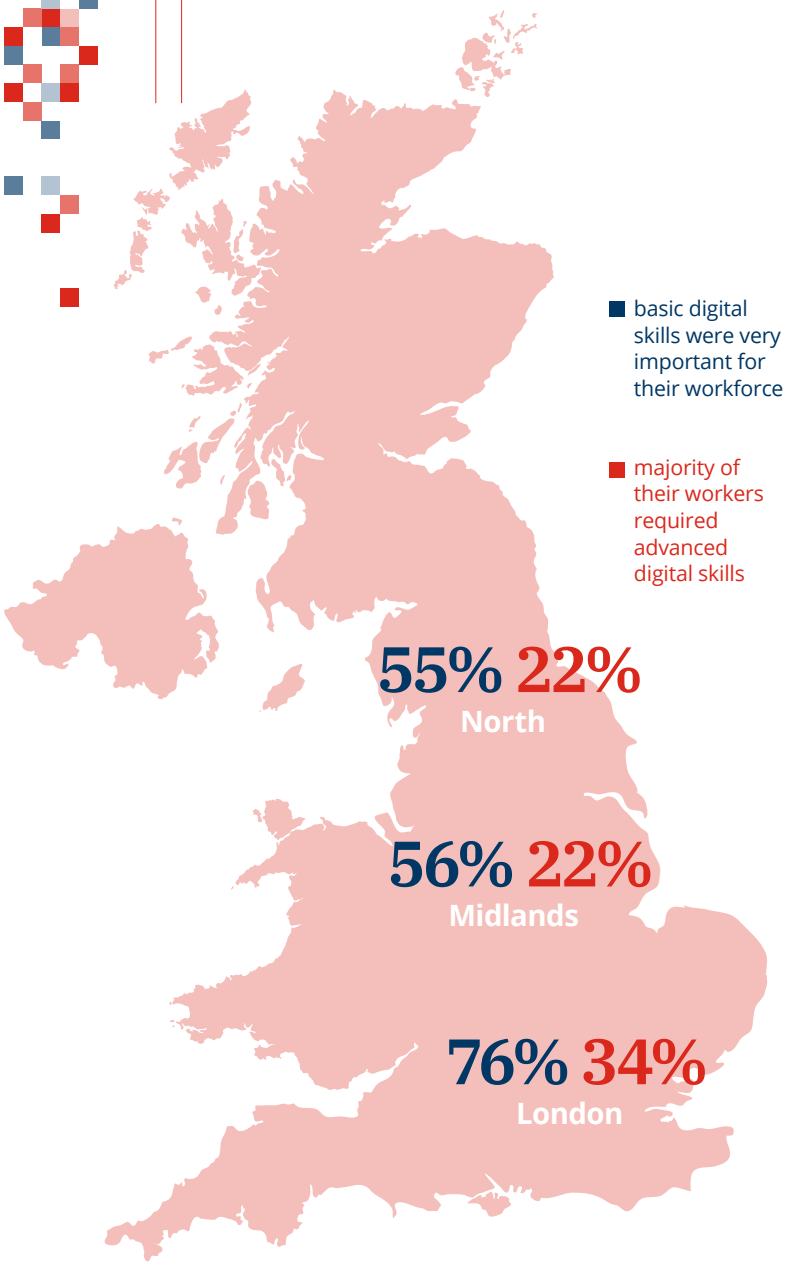


Figure 18: **Map of United Kingdom showing distribution of demand for digital skills**

Employer demand for digital skills is particularly high in London

While our survey found significant and growing demand for digital skills across Great Britain, demand is particularly high in the capital.

Demand is higher in the capital both for basic digital skills and advanced digital skills. Three in four (76%) employers in London said that basic digital skills were very important for their workforce, compared to just over half of employers in the Midlands (56%) and the North (55%). Similarly, a third (34%) of employers in London said that the majority of their workers required advanced digital skills, compared to one in five (22%) in the North and the Midlands.

These findings reflect recent analysis of job adverts, which showed the capital had the greatest demand for digital skills. Nearly nine in ten (87%) advertised jobs in London required digital skills, with demand spread across all sectors (DCMS and Burning Glass 2019).

The higher demand for digital skills in London reflects both the thriving digital and tech sector in the capital, and the wider demand for digital skills in other sectors too.

Skills gaps

Businesses in London seem to have the greatest challenge both with skills gaps, and in recruiting workers with the digital skills that they need. Nearly half (44%) of employers say they face skills gaps in relation to advanced digital skills, compared to just one in three (34%) across the rest of Great Britain. Similarly, over half (53%) of employers in London say that they have struggled to recruit employers with the advanced digital skills that they need compared to just over one in three (37%) across the rest of Great Britain.

The greater prevalence of skills gaps in the capital is likely due to the higher level of demand for digital skills, rather than to lower levels of digital skills among the workforce. London has a highly-skilled workforce, yet demand for digital skills is still out-stripping supply.

Digital skills provision

ICT apprenticeship starts are concentrated in London and the South East of England, accounting for one in three (34%) ICT apprenticeship starts in 2019/20. The capital accounted for just 11% of all apprenticeship starts in that year, but 17% of ICT apprenticeship starts. This mirrors both the higher levels of employer demand for digital skills in the capital, and the concentration of the digital tech sector in London.

34%

ICT apprenticeship starts in 2019/20 were concentrated in London and the South East of England

Table 2: **London and the South East account for a third of ICT apprenticeships in England**

ICT apprenticeship starts, 2019/20 by region, England

Region	ICT apprenticeship starts
East Midlands	1,090
East of England	1,710
London	3,110
North East	960
North West	2,300
South East	3,100
South West	2,820
West Midlands	1,710
Yorkshire and the Humber	1,300

Source: DfE 2020b

Conclusion

Digital skills are already crucial for success in the labour market, and they will become ever more important in the future. The vast majority of jobs already require basic digital skills, and a growing proportion of jobs will require advanced digital skills as digital technology becomes more pervasive.

Helping all young people develop the digital skills that they need will therefore be crucial both to driving the competitiveness of the UK economy, and in ensuring young people can thrive in the labour market of the future.

Our research has highlighted some significant strengths around young people and their digital skills. The vast majority of young people recognise the importance of digital skills. Most young people believe they have the basic digital skills that employers need, and most businesses agree. There is significant interest in pursuing a career that requires advanced digital skills, and there is an appetite among young people to carry on learning throughout their careers.

we need to ensure more young people are able to develop the advanced digital skills that our economy will increasingly demand

If we are to equalise opportunities in the future, and ensure we are able to meet employer skills needs, we need to continue to tackle these inequalities

However, there remain a number of areas of concern:

Digital skills gaps

Over one in three employers say that their workforce lack the advanced digital skills that they need. Many employers feel young people coming out of education do not have the advanced digital skills they need, and many struggle to recruit workers with the requisite skills.

Most employers feel that digital skills gaps will improve in the future, but this appears optimistic. Demand for and reliance on digital skills are rising fast, but participation in ICT courses in schools and FE have declined, and employer investment in skills remains too low. If we are to avoid growing digital skills gaps holding back our growth, we need to ensure more young people are able to develop the advanced digital skills that our economy will increasingly demand, and we need to boost employer investment in digital skills too.

Gender inequalities

There are stark gender inequalities when it comes both to ICT training at all levels, and employment in the digital sector. Young females are far less likely to take part in ICT courses at school, college and in higher education, they are less likely to take ICT apprenticeships, and they are under-represented in the tech sector. This both limits the opportunities available to young females, and it limits access to talent for employers.

If we are to equalise opportunities in the future, and ensure we are able to meet employer skills needs, we need to continue to tackle these inequalities. This must include inspiring more young females about the opportunities available through digital skills, and addressing the gendered assumptions and structural barriers that stand in the way of progress.

Geographic inequalities

While digital skills are important for all parts of the UK, there is a stark and consistent pattern by geography. The capital has a thriving digital tech sector, with higher levels of demand in both basic and advanced digital skills. The capital has the highest level of supply of digital skills within the workforce, and the greatest level of interest in digital skills among young people.

Given digital technology – and the digital skills needed to exploit it – will become increasingly important in the future, this risks exacerbating existing regional inequalities. Boosting both the demand for and the supply of digital skills can play a crucial role as we seek to level up opportunity and prosperity across the UK.

Digital poverty

The recent coronavirus pandemic shone a light on the shocking scale of digital poverty. One in ten young people lack access to an appropriate digital device on which to do their homework and build their skills, rising to one in five among young people from lower socio-economic groups.

Tackling digital poverty through ensuring access both to an appropriate device and to a decent and affordable broadband connection must be a priority to ensure that no young people are left behind.

Ensuring all young people have the digital skills that our future economy needs will be crucial both to economic competitiveness and to social justice

Ensuring all young people have the digital skills that our future economy needs will be crucial both to economic competitiveness and to social justice. The recent Skills for Jobs White Paper in England and the upcoming UK digital skills strategy are an opportunity to drive a step-change on digital skills. Government, employers, providers, local leaders and other stakeholders all have a role to play in delivering on this agenda.

Closing the digital skills gap – the role of WorldSkills UK

WorldSkills UK has partnered on this report to better understand the digital skills gap so that we can ensure our programmes help young people and employers succeed in the digital economy.

As a result of the findings from this report we are committing to:

1. **Show young people that digital careers are for everyone**

   We will use our careers advocacy programmes to engage 50,000 young people from all backgrounds over the next year to demonstrate the wealth of digital careers opportunities available to them and the skills and training needed to achieve those aspirations. Through a social media campaign and our next Spotlight platforms in the Autumn, which has previously reached over 29,500 young people, we will use this research to create inspiring content

for young people, introducing them to peer role models who use digital skills in their careers. We will ensure at least half of those role models are female, showing that digital careers have no gender.

2. **Embed digital skills in our development programmes in all parts of the UK:**

   We will conduct a strategic review of our UK-wide competitions programme to get a comprehensive understanding of where basic and advanced digital skills are needed, and where they could be developed to encourage greater demonstration of high-quality digital skills standards across our 2022 national competitions cycle.

   We will lead the call for digital skills to be embedded in the next global review of WorldSkills standards so that high quality digital skills are expected alongside exceptional technical and mindset skills. This will enable our Training Managers to develop and test high-quality digital skills through our international training programme, and through our skills quality improvement programmes (Centre of Excellence, Innovation Network and Skills Development Hub) helping to embed high-quality digital skills in many different parts of the UK.

We will lead the call for digital skills to be embedded in the next global review of WorldSkills standards so that high quality digital skills are expected alongside exceptional technical and mindset skills

3. **Champion the development of excellence in advanced digital skills**

   We will continue showcasing the most in demand new and emerging skills within our competitions portfolio nationally and internationally. By striving to achieve ever higher standards in areas such as cyber security, industry 4.0, Building Information Modelling (BIM) and 3D game art, we will aim for a top 5 place in the global finals of the digital skills competitions in WorldSkills Lyon in 2024, with significant progress made towards this target at WorldSkills Shanghai in 2022. By providing world-class training opportunities, and learning from best practice in other major economies, we can help set a new benchmark for high-quality digital skills development across the UK, mainstreamed back into training and assessment practice via our skills quality improvement networks and programmes.

There is much work to do – the role of Enginuity

Enginuity, as the sector connector across Engineering and Advanced Manufacturing, will continue to support the employers we serve to close their digital skills gaps and challenges within their workforce strategies.

Our work as trusted skills experts enable us to be a voice with policymakers, industry, educators and most importantly learners.

The areas of focus which we will seek to improve as part of the work we do to build a better working world and enable young people to find meaningful work and careers are:

- **Diversity within digital careers** – expanding the work we do to include digital careers as well and Engineering and Manufacturing careers.
- **Building links between providers and Industry** – being that conduit that can take the 'wants and needs' from Industry and turn them into learning programmes and opportunities for providers.
- **Embed digital across all provision** – thinking 'digital-first' as we develop future learning frameworks and ensuring that digital skills are built at each stage of lifelong learning. Developing technology products that enhance learning at all ages through the acquisition of digital skills.
- **As an employer voice** – use our collective influence to ensure engineering work-based qualifications, as they are developed, all contain core components requiring the development, assessment and certification of digital skills.
- **National Manufacturing Skills Task Force** – bringing together the best thinking from across the various sectors we serve to explore how we can ensure that the digital skills requirements of employers are matched with the skills development opportunities that are available in the marketplace.

Thinking 'digital-first' as we develop future learning frameworks and ensuring that digital skills are built at each stage of lifelong learning

Annex – Methodology

Evidence review – we conducted a review of existing literature and data relating to young people and digital skills, and employer digital skills needs.

Employer polling – WorldSkills UK commissioned a poll of 1,004 employers from YouGov's employer panel. The sample was weighted to reflect employers across Great Britain as a whole.

Young people polling – WorldSkills UK commissioned a poll of 2,017 young people aged 16-24 from Youthsight. The sample was weighted to ensure it was representative of the UK population.

Employer roundtable – we conducted a roundtable with eight employers to explore the findings of the polling, and their perceptions of digital skills and young people.

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Disconnected?

Exploring the digital skills gap

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