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# Unpacking the hidden middle

Digital skill gaps in the UK  
workforce and the actions  
for business to take now

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# Executive summary



There is a serious issue with fundamental digital capability and confidence in the UK that is holding back productivity and prosperity. As evidenced in the Lloyds Bank Essential Digital Skills Report 2021, critical digital skills gaps are hidden in plain sight with over a third of workers lacking the digital basics.

The pandemic has created new incentive, indeed necessity, for people to become more digitally capable. Since 2020, c.5.6 million workers<sup>4</sup> have improved their skills, however, millions of people in the UK remain digitally under-powered, without even the digital basics deemed essential in the UK's digital skills framework, and as outlined in the Lloyds Bank Essential Digital Skills report.

By 2030, basic digital capability is set to become the UK's biggest skills gap<sup>5</sup>.

To develop genuine digital proficiency, it is not enough to be surrounded by technology. Proactive intervention is needed to help people build skills and confidence. As well as access to affordable technology, people of working age need opportunities to develop their digital capability; some need support to build the confidence to get started, as well as the motive and mindset to keep going.

Employers have a critical role to play. Nearly six in ten (57%) adults say the easiest way to learn digital skills is through work and yet, in 2020, only 23% of adults reported receiving any digital skills training in the workplace<sup>6</sup>.

There is a dichotomy at play. Seven in ten business leaders believe they have a digital skills gap in their organisation<sup>7</sup> and yet almost half of all businesses currently do not test their employees' digital literacy<sup>8</sup>.

Crucial gaps in digital skills strategies are leaving the needs of large parts of the workforce under-recognised and, therefore, under-addressed<sup>9</sup>.

This report addresses three questions:

1. What digital skills are most lacking in the UK workforce?
2. Who in the workforce is struggling to build the digital basics?
3. What actions can business take to build digital confidence?

The analysis in this paper focuses on the c.30.3 million people (aged 18+) in the workforce who have at least the Foundation Level of Essential Digital Skills. There are a further c.2.4 million people in work who do not have this very basic level of skills

and as a result do not meet the threshold to be included in the workforce dataset. This is an important group, that should not be forgotten, but they are not the focus of this paper.

This analysis by PwC Research<sup>10</sup> builds on the UK's Essential Digital Skills Report 2021, and profiles the ten digital work essentials most likely to be missing amongst adults at work, who can already do the digital basics. The full breakdown can be seen on page 9, but a clear area of focus is online safety. Three out of the ten tasks relate to 'being safe and legal online', with 30% of the workforce, despite being able to get online, unable to update computer security systems to protect from viruses and other risks. 39% of businesses have reported cyber security breaches or attacks in the past year, with 77% of business leaders saying cyber security is a high priority<sup>11</sup>, so taking action on this insight alone represents a significant opportunity for business to reduce risk whilst helping individuals build safer digital practices.

This report also launches four workforce personas, fictional members of the workforce who represent a broader group of employees with specific skills, needs and motivations. Breaking down urban myths about who has the skills and who doesn't will enable businesses to take targeted action. From higher performing digital Denny to digitally lacking Lou, all four personas have essential digital skill gaps, albeit to different degrees.

Each persona talks to who they are from a demographic perspective, how they have progressed their digital ability in the last 12 months, their sense of job security, tasks they can't do and most importantly where upskilling interventions would benefit them and their employer.

This report proposes seven actions that businesses can take to address this issue.

1. Quick win - share this report with your CEO, Board and HR/Business leaders
2. Quick win - prioritise cybersecurity
3. Know your starting point - identify the digital skills gap in your organisation
4. Acknowledge different user needs when designing your programmes
5. Aim to build confidence as well as capability
6. Become part of the FutureDotNow movement
7. Join the FutureDotNow Lighthouse Programme to take action fast

The report is designed to be a positive spur, helping employers to act decisively to close this critical skill gaps across the workforce. Creating opportunities for working age adults to build their basic digital capability and confidence is an investment in people and in productivity.

This FutureDotNow report, produced in partnership with PwC and Lloyds Bank, answers three key questions:

1. What digital skills are most lacking in the UK workforce?
2. Who in the workforce is struggling to build the digital basics?
3. What actions can business take to build digital confidence?

It takes existing data from the national Lloyds Bank Essential Digital Skills Report 2021<sup>1</sup> and applies additional analysis to reveal new insights on the reality of the UK's digital skill gap.

The report proposes a set of actions that businesses can take to develop the digital capability and confidence of their workforce. It is designed as a positive spur to enable business to act and close the digital skill gap in working age adults across the UK.

**69% of leaders believe they have a digital skills gap<sup>2</sup>, and yet almost half of all businesses currently do not test their employees' digital literacy<sup>3</sup>**

“ Nearly two-thirds of workers would benefit from growing their basic digital skills and they’re people at every level, from the c-suite to the shop floor. ”



## Liz Williams MBE

CEO, FutureDotNow

The gap in basic digital capability in the UK workforce is real and huge. It presents both risk and opportunity. It’s holding the nation back, affecting productivity and business resilience at a time when the economic outlook is bleak and the nation is looking for answers.

This report analyses for the first time the digital skills of nearly all of the working population – representing c.30.3 million people. The findings are significant – and in some cases, alarming. What is worse, 8% of the workforce don’t have the basic skills and are therefore excluded from this particular analysis.

We’ve discovered that nearly two-thirds of workers would benefit from growing their basic digital skills and they’re people at every level, from the c-suite to the shop floor.

Insight is the first step to action. The ultimate purpose of this report is to help businesses act. It provides new granular information. But the big picture take out is that people need opportunities, and - as our new personas show - in some cases incentives, to build their core digital skills. These skills will stand them in good stead, opening new opportunities for individuals and, for employers, unblocking the digital talent pipeline.

FutureDotNow was launched in 2019 by business for business, to accelerate the UK’s digital skills at scale through collective action. This report, and the actions it proposes, is another important step in helping businesses, collectively and individually, make that vision a reality.



## Jemma Waters

Head of Digital, Group Customer Inclusion, Lloyds Banking Group

Building on the data of the Essential Digital Skills 2021 report, this report hopes to galvanise industry leaders around the importance of prioritising the fundamentals of digital. Whether your goal is to enhance productivity, embed technology and transformation, or to evolve your digital customer experience, building essential digital capability and confidence is the linchpin.

Amidst the current cost of living crisis, we also must not forget how vital digital is for people’s whole lives. Learning skills at work has a halo effect, translating into greater confidence with online money management, simplifying engaging with health services and greater ability to avoid online harm and scams. We can’t underestimate the importance of this. To have an inclusive workforce, we must ensure opportunities to thrive in an ever digitally driven workplace, and society, are accessible to everyone.

Insight is only helpful when it turns into action. The purpose of this report is to elevate our understanding of the Essential Digital Skills data and to profile the steps leaders can take today. With over half of the online UK population saying the best way for them to learn new digital skills is through support at work, there is a huge opportunity for employers to step up.



## Sunil Patel

Partner and Chief Data Officer, PwC

As the leader of PwC’s digital upskilling programme, I have first-hand knowledge of how improving digital skills can benefit individuals, organisations and society at large to unlock significant value.

Digital is not to be considered a static skill which you have or don’t have. It is a progressive skill requiring ongoing learning and confidence. It increasingly underpins much of how we live and work. Post the pandemic, the need for digital skills has accelerated opening up opportunities for many. But what if you don’t know how to benefit and how do we ensure this is equitable?

This report shows that not everyone in the workplace has the requisite skills or confidence to seize these opportunities. Without taking decisive action, we risk falling further behind just when we should be accelerating the digital upskilling of ALL of our workforce. We can future-proof jobs, raise productivity, increase talent and reduce cybersecurity risks. Above all, we can improve the confidence and agility of our workforce by taking action now. This will go a long way to making sure we have the workforce our nation needs.

PwC is a proud supporter of FutureDotNow and our purpose is to build trust and solve important problems. This is an important problem that can only be solved by working in collaboration with others like FutureDotNow.



The UK is powered by digital. Businesses are in the throes of digital transformation, finding new ways to operate, serve their customers, and empower their workforces. To realise these benefits, employees and customers need the digital basics to keep up. Today nearly seven in ten workers (68%)<sup>12</sup> would benefit from growing their digital skills and capabilities. This report looks across the whole UK workforce, asking who is without the Essential Digital Skills for Work, what skills they need, and what is the benefit to businesses in addressing these needs.

In addition to providing this granular insight, this report looks at what can be done, proposing a set of actions that businesses can take to develop the digital capability and confidence of their workforce. It is designed to enable business to act and close the digital skill gap in working age adults across the UK.

The UK's Essential Digital Skills (EDS) Framework defines the digital skills adults need to safely benefit from, participate in and contribute to the digital world, at home and at work. The Lloyds Bank Consumer Digital Index 2021<sup>13</sup> and Essential Digital Skills Report 2021 provide a measure of the state of the nation and this report applies additional analysis to the existing EDS data.

Since 2020, c.5.6 million workers have improved their skills, however millions of people remain digitally under-powered. Alarming, the 2021 EDS data shows only 32% of the UK workforce was able to do the 17 digital tasks deemed essential for work. That means 68% are unable to do one or more basic tasks, such as the ability to check a payslip online, use collaboration tools to connect with colleagues, upload a photo or manage their privacy settings on social media.

The EDS data over time is even more alarming. Progress is slow. In 2019 only 28% of the workforce was able to do all 17 tasks. Across the last three years, this has increased by only four percentage points; concerning given how much digital knowledge and access was assumed across the pandemic. In April 2020, according to the ONS<sup>14</sup>, nearly half (47%) of employees did some work from home, with the vast majority (86%) stating that this was because of the coronavirus pandemic.

At the same time, businesses are finding it increasingly difficult to attract and retain the talent needed to transform their organisations. The digital talent pool is currently too small. This report looks across a broader view of the UK workforce (aged 18+) and shows where there is an opportunity to grow the talent pipeline. Delving deeper into the EDS data brings to light different personas in the workforce and their specific needs and motivations.

Like all skills, digital capability is not acquired without intervention and this report is designed to enable business to act to close this talent gap.

Digital capability is not acquired without intervention and this report is designed to help businesses act.

# Snapshot of digital skills in the workforce today

Many workers are not yet equipped with the very basics of digital capability. Only 32% of the UK workforce can do all 17 tasks deemed the Essential Digital Skills for Work. Put another way, this means 68% of workers have potential to grow their basic digital skills and capabilities.

With a total workforce of c.32.7 million in the UK<sup>16</sup>, these are widespread skills gaps, potentially hidden in plain sight and with potentially huge impact on productivity and digital transformation, not to mention personal prosperity.

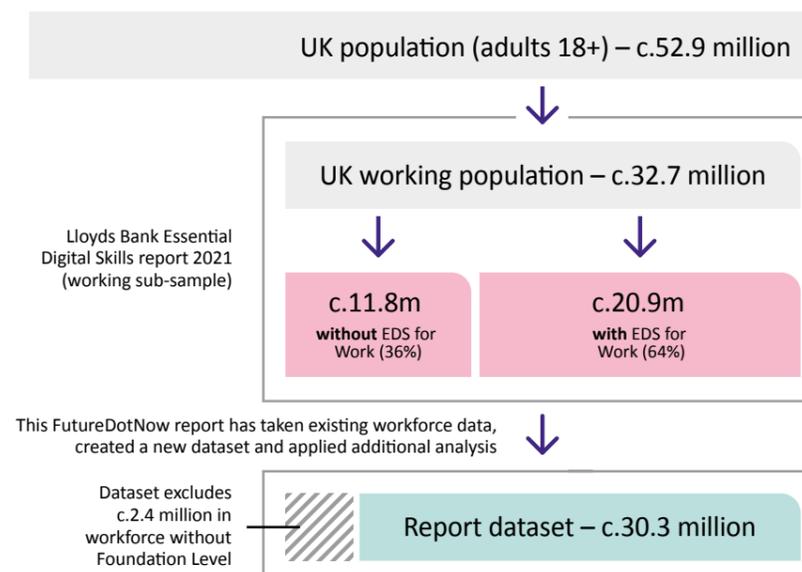
Taking decisive action could transform these metrics. A recent report by PwC and the World Economic Forum suggested a potential £3.2 billion uplift to the UK economy through digital upskilling<sup>17</sup>. Furthermore, Microsoft's Unlocking the UK's potential with digital skills report found that digital skills have clear and valuable impact on bottom line performance, stating that digital skills hold the key to 2.4% minimum of a company's bottom line<sup>18</sup>. For an organisation with an annual profit of £1 billion, this equates to £24 million every year.

Digital skills hold the key to 2.4% minimum of a company's bottom line.

The Lloyds Bank Essential Digital Skills Report 2021<sup>15</sup> found:

- c.11.8 million people – just over a third of the workforce (36%) – are not able to complete at least one task in each of the five skill categories in Essential Digital Skills for Work.
- c.20.9 million people (64% of the workforce) have the Essential Digital Skills for Work; however, this group ranges from those who can do all 17 work tasks to potentially those who can do just five (one task in each of the five skill categories).
- Nearly one in ten people (8% or c.2.4 million) currently in the workforce lack the very fundamentals of connecting to the Internet – called the Foundation Level.

Figure 1: Snapshot of digital skills in the workforce (adults 18+) and how the new dataset aligns



Population estimates based on ONS 2020 mid-year estimates for those 18+ in the UK.

# Approaching the data with a new lens



Using existing data, a new working population dataset was created and, from this, it has been possible to explore the most prevalent workplace digital skill gaps, and identify trends around groups of workers with skills deficits<sup>19</sup>.

The EDS framework is based on progression through the Foundation Level, EDS for Life and EDS for Work. There are seven tasks in the Foundation Level, 29 in Life and 17 in Work.

Individuals must be able to do all foundation tasks and one task within each of the five life and work skills to qualify as 'having' the skills. They must also be able to complete them independently and be in employment to be eligible to respond to questions about the work tasks. Participants must also actively do the tasks in their workplace.

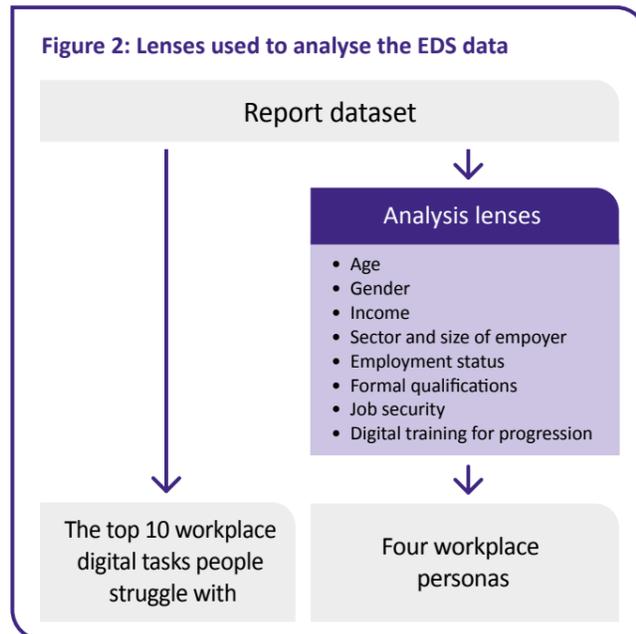
The analysis in this paper focuses on the c.30.3 million people in the workforce who have at least the Foundation Level of Essential Digital Skills. There are a further c.2.4 million people in work who do not have this very basic level of skills and as a result are not eligible to be counted in the workforce dataset. This is an important group, that should not be forgotten, but they are not the focus of this paper.

To assess a broader pipeline of talent and to segment the working population, PwC Research approached the data in the Lloyds Bank Essential Digital Skills Report 2021 differently. People in work who don't have the opportunity to actively use the work tasks were included in the dataset, where normally they would not qualify. This approach retained the focus on people in work and increased the population under analysis.

Using this expanded dataset, the team explored:

- Top 10 workplace digital tasks people struggle with
- Groups of people in the workforce who have skills deficits

The data was interrogated using a number of lenses, including standard demographics, employer characteristics and motivational data in relation to training and progression.



Factor analysis was used to identify underlying data trends by looking for patterns of responses. This identified four groups displaying similar characteristics with regards to their digital skills, particularly in relation to participants' abilities to perform work tasks.

Comparing these groups, both against each other and the total dataset highlighted the statistically significant differences between the groups and enabled the creation of four distinct personas. These personas are mutually exclusive, fictional members of the workforce who represent a broader set of employees with specific skills, needs and motivations. The intention of this is to bring the data to life and more actionable.

# Top 10 workplace digital tasks people struggle with

Digital skill gaps are an issue for everyone, from senior leaders to the most junior members of the workforce. These gaps have serious implications for business security and productivity as well as the confidence and engagement of the workforce. Closing them can only have a positive impact on business performance and productivity.

The analysis identified ten work tasks most likely to be missing amongst the majority of the workforce, those who already have the basic digital skills. The tasks span all five areas of the Essential Digital Skills Framework.

The situation is even more severe than this table suggests. These statistics exclude the 8% of the workforce who lack the Foundation Level, and who based on the progressive nature of the Essential Digital Skills Framework don't meet the threshold for workplace skills.

**Top 10 workplace digital tasks people struggle with (working adults aged 18+ who have the Foundation Level n=2088)**

Task	People in work who said they couldn't do this task <sup>20</sup>		Business impact
	%	millions <sup>21</sup>	
<b>1 Transactional</b> I can manage digital records and financial accounts (e.g. expenses, budgets) through digital systems	32%	c.9.8	• Productivity
<b>2 Being safe</b> I can set privacy settings on my social media and other accounts	32%	c.9.6	• Cybersecurity • Reputational
<b>3 Being safe</b> I can update my computer security systems when necessary to prevent viruses and other risks	30%	c.9.0	• Cybersecurity • Reputational
<b>4 Communication</b> I can set up and manage an account on a professional online network / community, (e.g. LinkedIn, Total Jobs, Indeed)	25%	c.7.7	• Talent overlooked
<b>5 Problem solving</b> I can use appropriate software, including a spreadsheet, to manipulate and analyse data	23%	c.7.1	• Productivity
<b>6 Problem solving</b> I can use different digital tools to improve my own productivity i.e. saving time or working more efficiently	23%	c.6.9	• Productivity
<b>7 Transactional</b> I can access salary and expenses information digitally, including password protected payslips	22%	c.6.5	• Productivity
<b>8 Handling information</b> I can access, synchronise and share information across different devices (e.g. manage a calendar or appointment system via phone or desktop)	20%	c.6.0	• Productivity
<b>9 Being safe</b> I can assess the risks and threats involved in carrying out activities online and act accordingly (e.g. use security software)	19%	c.5.9	• Cybersecurity
<b>10 Communication</b> I can use digital collaboration tools to meet with, share and collaborate with people (e.g. Skype/Google docs/Dropbox etc)	18%	c.5.3	• Productivity

# Introducing four workplace personas

Breaking down the workplace digital skills challenge into something that is actionable is a challenge. Knowing who needs what help and what will motivate them to build skills is critical. New analysis has informed the identification of four workplace personas, where certain characteristics correlate with different levels of digital capability. Each persona represents a sizeable segment of the working population, equating to between c.3.5 million and c.17.5 million people.

Over the next four pages you will meet four fictional members of the workforce that represent distinct groups requiring specific and targeted interventions. Each persona has different skill needs and different motivations to learn, and is described in some detail including:

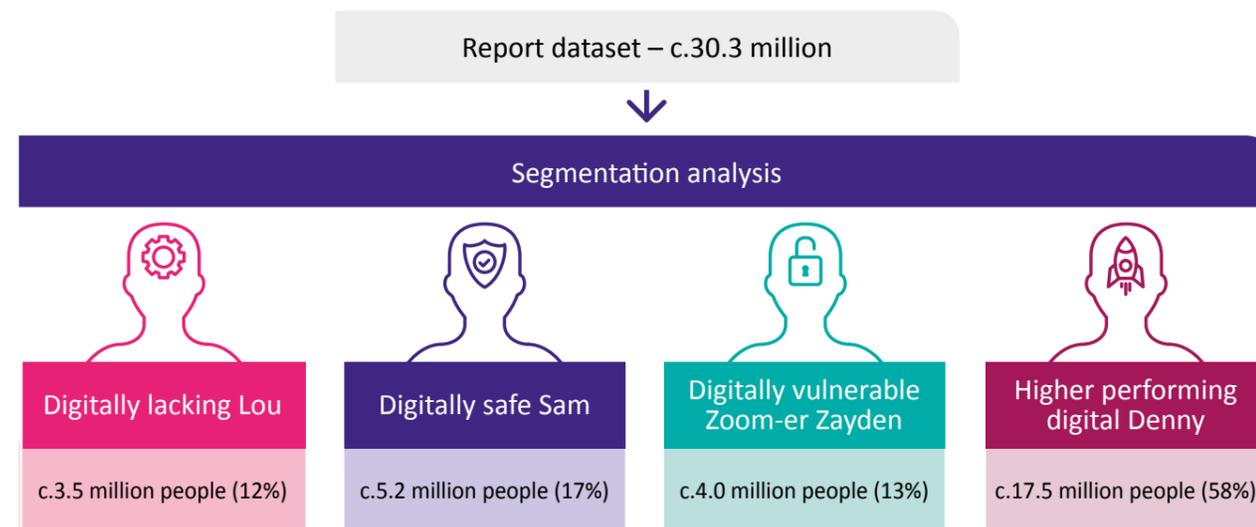
- Who they are from a demographic perspective (e.g. age, region, sector of employment)
- Their digital ability and how it's changed in the last 12 months
- The digital tasks they can't do or 'deficits'
- Their outlook on life, including things like sense of job security

Most importantly, it draws out what help they might need to build their digital capability and confidence and build motives to keep learning.

Introducing:	
<b>Digitally lacking Lou</b>	<b>c.3.5 million people (12%)</b>
<b>Digitally safe Sam</b>	<b>c.5.2 million people (17%)</b>
<b>Digitally vulnerable zoom-er Zayden</b>	<b>c.4.0 million people (13%)</b>
<b>Higher performing digital Denny</b>	<b>c.17.5 million people (58%)</b>

Don't forget these are indicative personas, they are gender neutral and are not intended to represent specific people in the workforce.

Figure 3: Segmenting the new data set into personas<sup>22</sup>



Population estimates based on ONS 2020 mid-year estimates for those 18+ in the UK.

## Meet digitally lacking Lou

c.3.5 million people (12%)



Lou is more likely<sup>23</sup> to be older, a public service worker and less likely to be a middle or high earner.

They typically have a lower digital ability in their general life and work and feel less secure in both their job and their career prospects in an increasingly digital world.

Workers like Lou tend to be 45+, are slightly more likely to be female and less likely to have a degree or higher level of education. They are the least likely<sup>24</sup> to be able to do the majority of the EDS life or work tasks.

**Almost a quarter (24%)** of people like Lou are not able to do 25 or more of the 29 life tasks

**Nearly two thirds (60%)** are not able to do 14 or more of the 17 work tasks

### Digital abilities

Lou is more likely to be able to access salary and expenses information digitally. Like the overall workforce<sup>25</sup>, Lou is careful with what is shared online and can also use the internet to help solve problems.

### Digital deficits

Lou would benefit from digital upskilling across a number of digital tasks, including:

- Updating computer systems to prevent viruses
- Building a professional online network
- Sharing information across multiple devices.

### Outlook on life

Lou is less likely to feel secure in their job and about future career prospects but more likely to believe that their digital ability has improved over the past 12 months.

### How to help

Lou has a low level of digital skills and may also be less motivated to learn.

- 1. Help Lou to find new motives to build digital skills** – Bring to life how building these skills has benefits in both social and work life. Take time to acknowledge fears and worries.
- 2. Create a structured learning path** – Use online, openly accessible, bite-sized content. It may not be easy for people like Lou to invest much time at work in learning, so being able to access on personal devices too can be helpful.
- 3. Personal support from a workplace mentor** – This can help Lou to build confidence and appetite for learning – knowing where to go for support is vital when getting started.

### In real life



Alison manages a Manchester-based homeless centre, organising activities to create structure and routine for visitors and help them build confidence.

Alison uses a personal laptop for online shopping and banking and another one for work. She understands the basics of Excel and email, but her role is mostly paper based. Alison attended the Lloyds Bank Academy to get help to digitise the centre, despite feeling out of her depth.

Within a year, the centre reduced paper forms by over a hundred a week, savings hours at a time. With forms now online, she can work from home, reducing her commute and creating more time to support the homeless. Alison uses her new digital skills to access grants, local opportunities and support.

# Meet digitally safe Sam

c.5.2 million people (17%)



Sam is amongst the younger generation of middle-earning government, education or medical workers.

Sam is more likely to live in an urban area. Sam has good digital security practices at work and is more likely to be a desktop user but lacks sufficient knowledge in more specialist digital abilities, for example tasks related to communicating, handling information and problem solving. Sam is more likely to be female, aged 25-34 and to earn between £25,000 and £39,999.

**Nearly a fifth of people like Sam (18%) are unable to do the majority of life tasks, which is in line with the average workforce**

**They are more likely to be unable to do the majority of work tasks (48%) (14 or more out of 17 work tasks)**

## Digital abilities

Sam is the most likely to be digitally safe, particularly when it comes to recognising and avoiding suspicious activity, not sharing data/intellectual property without consent and keeping their online accounts safe using different passwords. Sam is also more likely to be able to use the internet to help solve problems.

## Digital deficits

Although generally safe online, Sam is less likely to be able to set privacy settings on social media and other accounts. Sam generally lacks deeper digital abilities and is less likely to be able to:

- Manage digital records and financial accounts through digital systems
- Build a professional network online
- Use digital tools to improve productivity and to work more efficiently.

## Outlook on life

Sam is less likely to have thought about growing and progressing their career through digital training. People like Sam are most likely to have used a desktop computer or a device belonging to an employer.

## How to help

Sam tends to have an average level of digital skills but perhaps low motivation to learn.

1. **Help Sam to find new motives to build digital skills** – Sam would benefit from understanding more about the benefits of digital upskilling for their productivity and efficiency in work. This could be linked to career progression to help motivate Sam as well as fostering greater engagement and work satisfaction.
2. **Trial a peer-coaching model** – At work, people like Sam are typically more desktop-based so have opportunities to learn on the job from colleagues via peer-coaching. Identify champions within teams who could provide support to others. Consider a campaign around life / work hacks, highlighting ways to make life easier, save money and save time through technology.
3. **Share real-life success stories** – Spotlight real-life examples of people who have developed digital skills, how they have benefitted personally and professionally and why. FutureDotNow has a bank of examples if you need inspiration.

## In real life



Nicky is a customer services manager, working either in a call centre or from home, dealing with banking queries.

Working remotely has made her job harder, as she must escalate queries via specific systems, so responses are not instant. She has received warning communications from her organisation about the rise of fraud and scams, so she is extra vigilant with customer security, and doesn't rush through emails – she tries to apply this to her personal life too.

Nicky loves the virtual element of her job; however it is more time consuming, and she worries about online safety, which is why really she values her organisation's refresher training on the do's and don'ts.

# Meet digitally vulnerable Zoom-er Zayden

c.4.0 million people (13%)



Zayden is more likely to be aged between 35-44 and to work in the services sector.

They are more likely to have digital skills linked to hybrid working, such as using collaboration tools to meet with people or accessing and sharing information across different devices, but are less likely to have safety skills online. Zayden is most likely to be educated to degree level.

**They are less likely to be able to do the majority of the EDS life or work tasks**

**46%** are not able to do 14 or more of the 17 work tasks

**12%** are not able to do 25 or more of the 29 life tasks

## Digital abilities

Zayden has good communication and problem solving skills. They are most likely to use digital collaboration tools and to manage an online professional network, such as LinkedIn. Using appropriate tools, Zayden is more likely to be able to manipulate/analyse data and improve their own productivity to work more efficiently.

## Digital deficits

Despite their technical skills, Zayden is less likely to be safe online. This is particularly the case in relation to the ability to set up privacy settings on social media and other accounts, updating computer systems and being careful with what is shared online.

## Outlook on life

Like the overall workforce, Zayden is likely to have improved their digital skills over the last 12 months, to manage money better online and not have thought about growing and progressing their career through digital training.

## How to help

Zayden tends to have an average level of digital skills and an average motivation to learn. With significant talent demands further up the digital skills pipeline, people like Zayden could be natural candidates for more advanced digital roles, if they can be encouraged and supported to improve their safety online.

1. **Bring digital skills/future of work into career discussions** – Highlight potential new career paths that could align with interests and emphasise the need for a higher level of digital skills, with cyber security being a stepping-stone.
2. **Provide access to online learning resources** – Using an element of benchmarking can help Zayden see how they rate against others. It could also be a gamified platform.

## In real life



Sarah is a secondary school teacher, with a Masters degree. She is proficient with collaboration tools, and uses them creatively to engage students, and connect with parents and colleagues.

Sarah uses school systems and forms, but has struggled to engage with other digital resources due to capacity. She only recently discovered the privacy best practice she should be using for confidential information. She dreads IT updates, as it eats into her time, and as not much school paperwork is being digitised, there is little incentive to invest her time in digital platforms.

At home, Sarah values Internet Banking as it saves her time, but finds social media overwhelming on top of a heavy workload. She uses WhatsApp but most friends aren't on Facebook or Instagram anymore.

# Meet higher performing digital Denny

c.17.5 million people (58%)



Denny is more likely to be a higher earner, based in London or the South-East of England and under 45 years of age.

Denny has higher levels of digital competence and probably requires less intervention. As well as having strong digital abilities in work, they have strong technology skills in life and are most likely to have used games consoles such as PlayStation, Xbox and Nintendo in the last month. Denny is more likely to earn above the average UK salary, tends to hold a bachelor's degree or higher and is more likely to be employed in the Technology or Financial Services sectors.

**They are the most likely to be able to do the majority of the EDS life or work tasks**

**15%** are not able to do 14 or more of the 17 work tasks

**Only 7%** are not able to do 25 or more of the 29 life tasks

## Digital abilities

Denny has a strong set of essential digital skills, most notably in transactional and safety tasks. When online, they are more likely to be able to identify risks and set privacy settings on social media and other accounts. They are also more likely to be able to manage a professional online network through the likes of LinkedIn and to manage records and accounts through digital systems.

## Digital deficits

Denny doesn't have any clear digital deficits. However, it is important people like Denny do not allow complacency to set in. The 17 digital tasks represent non-exhaustive examples of various basic work tasks and there is room for Denny to grow further and learn more digital skills. They could support others who lack digital skills, which is also another way to consolidate their own digital knowledge.

## Outlook on life

Denny is the most likely to have thought about growing and progressing their career through digital training in the next 12 months. They are also the most likely to feel secure in their job and about their future career prospects.

## How to help

Denny tends to have higher digital skill level and higher level of motivation and could benefit from more advanced digital skills training or acting as a mentor or coach to others in the workplace.

- 1. Pay it forward** – People like Denny could provide support and coaching to colleagues. They could be encouraged to share their views on 'top tips to make life and work easier' and 'what's new in digital' to encourage openness and nudge people towards shared and continuous learning.
- 2. Consider qualifications** – This group could be offered the opportunity to complete digital qualifications or certifications. Formally recognising their skills may be an added motivator and would be transferable between employers.
- 3. Building the talent pipeline** – Look for opportunities for people like Denny to be involved in digital transformation projects. Exposing them to future opportunities aligned to digital may help motivate them to build more advanced digital skills, and encourage them to explore more advanced digital skills training.

## In real life



Duggs is a community worker, formerly working in local government. Digital skills are his secret weapon for community engagement. Duggs is confident online, using email and video calls throughout his career, and using technology at home to make life easier and save money. He is never far from his phone, so always feels connected.

Digital makes it easy to set up volunteer groups – Duggs can connect volunteers instantly, which was invaluable during the pandemic. He can share volunteer schedules and key documents easily. On Facebook, he curates content and connects like-minded people to discuss local issues. Building the community online reduces costs (from physical space hire) and has allowed the network to grow – those who cannot help physically can still get involved online.

# Why digital upskilling matters to business



Basic digital capability is a universal workforce skills gap. It may be hidden in plain sight under a much bigger umbrella of skills deficits and digital talent gaps, but, as this report shows, it offers clear opportunity for business to act.

## Business benefits

One pound spent on upskilling has a significant return on investment and can drive improved business performance, productivity as well as employee engagement.

Increasing digital skills supports economic growth. Past analysis shows an estimated return on investment in digital inclusion of £15 per £1 invested – a net benefit to the UK economy of over £21 billion (over 10 years).<sup>26</sup>

### Human capital

#### Motivate, engage and retain existing employees

80% of the 2030 workforce is already here, reskilling the existing workforce will be a major challenge between now and 2030<sup>27</sup>

#### Strengthen and open the talent pipeline

77% of job openings requested basic digital skills<sup>28</sup>

#### Reduce expensive recruitment for limited external candidates

69% of UK business leaders believe their organisation has a digital skills gap, and are finding it difficult to recruit tech talent<sup>29</sup>

## Productivity

Digital skills gaps create barriers to adopting new, productivity increasing, technologies<sup>30</sup>

Digital skills link to at least 2.4% of variance in financial performance<sup>32</sup>

Levelling up – digital disparity exists between London, the East of England and the South East (higher levels of skills) and the rest of the country (lower levels of digital skills)<sup>34</sup>

70% of digital transformation fails due to lack of user adoption and behaviour change<sup>31</sup>

78% of leaders say the digital talent pool is critical to driving UK competitiveness globally<sup>33</sup>

## Cyber security

Online fraud and cyber-crime estimated annual cost to UK over £11bn<sup>35</sup>

39% of businesses experienced cyber-attack in the last 12 months, with 83% reporting phishing attacks<sup>36</sup>

## The social in ESG

Link to Sustainable Development Goal number eight to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all"<sup>37</sup>

Transitioning to green economy will require reskilling and upskilling of workers to reduce the risk of rising unemployment and social inequality<sup>38</sup>

# Next steps and actions for business

Understanding the scale of the problem is important and this report aims to arm business leaders with insight and new understanding. Whilst understanding the issue is important, on its own it is not enough. This report is designed to help you take action in your business, but also to drive a multiplier effect as we work together to create a movement across industry to drive change.

Digital skills gaps are an issue for everyone, from senior leaders to the most junior members of the workforce, and for every business and every sector.

Employers have a critical role to play to help people build digital skills and confidence. To develop genuine digital capability and confidence, it is not enough to be surrounded by technology. Proactive intervention is needed; people of working age need learning opportunities to develop their digital capability, some also need support to build confidence to get started, as well as the motive and mindset to keep going. The data shows the workplace is one of the best places for this intervention. In short, people need employers to help them find opportunities to acquire these essential digital skills, and it is in the businesses' interest to do so.

“FutureDotNow is helping business develop, share and implement best practice and achieve a cultural shift in attitudes to digital skills, always focusing on the economic and personal benefits those skills bring.”

Liz Williams MBE, CEO FutureDotNow



**Where to start?** Here's some pointers...

1

**Quick win - share this report with your CEO, Board and HR/Business leaders**

Build awareness that building digital confidence and capability is more than a people issue, it is a whole business issue affecting performance, productivity and wider prosperity.

- Who in your leadership team has accountability for basic digital capability in your business?
- Do you know how the basic digital skills gap plays out in your workforce?
- What could your organisation do in the next 6-12 months?

2

**Quick win - prioritise cybersecurity**

Accelerating cybersecurity skills as a first step can only bring benefits. Many people with attributes like Lou and Zayden, have online safety skills gaps: an increasing issue for businesses and individuals.

- Where can you embed cyber security training in existing mandatory training?
- Could you leverage existing resources and embed learning opportunities into existing processes?

3

**Know your starting point - identify the digital skills gap in your organisation**

Our analysis has shown the top ten skills gaps; these gaps will have a major impact on businesses. Do you know what skills are lacking in your organisation? Identifying the baseline is key.

- How big are the skills gaps in your organisation?
- Run a short survey of your workforce, based on the top 10 tasks or the full 17 Work tasks, to see how you compare to the national average

4

**Acknowledge different needs when designing your programmes**

Not all employees have the same skills needs. The type and level of gaps can depend on a range of demographic, attitudinal and behavioural characteristics. Inclusive design aims to accommodate the different needs of everyone.

- Use the personas to quantify quick wins – who is close to having the skills and needs minimal support to close the gap?
- Quantify who needs more support – what worries / concerns hold your people back?
- Identify those people in your workforce that can act as Digital Champions and mentors

5

**Aim to build confidence as well as capability**

Find the hooks – frame digital learning as being a smart way to solve real challenges. Everyone has different starting points; no-one knows it all. “You are not unusual.”

- Engage your people in the design of your programmes. Engage unions if appropriate.
- Identify and remove barriers; incentivise taking the first step.<sup>39</sup>

6

**Be part of the movement**

FutureDotNow exists to support and encourage businesses on their digital journey. Become a member today (for free) and join the other members who are driving change together. You'll be able to learn from others on the journey, gain access to resources such as the FutureDotNow Playbook and Directory to help you take action, and be part of a community addressing this issue at scale and at pace.

Find out more at [futuredotnow.uk/join-us](https://futuredotnow.uk/join-us)

7

**Want to take action fast?**

Join the FutureDotNow Lighthouse Programme, to test and learn what it takes to uplift these skills in your workforce – the learning content is ready to go and free to access.

We are seeking four to five organisations to work with us to define what it takes to engage and motivate your teams to build confidence as well as capability in these key areas. Launching Summer 2022.

Contact [hello@futuredotnow.uk](mailto:hello@futuredotnow.uk) to find out more.

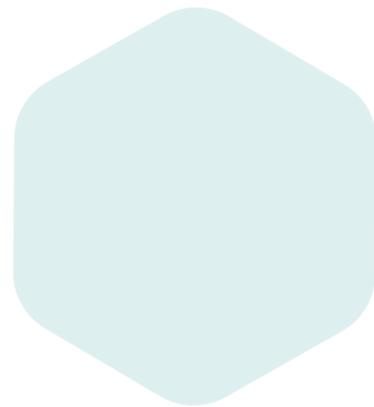
“We need all businesses to look in the mirror and take action to help the many people that are hidden in plain sight within their workforce. This is not someone else's issue, it is all of ours.”

Sir Peter Estlin, Chair FutureDotNow

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# Technical notes

## New PwC analysis

The analysis in this paper focuses on the c.30.3 million people in the workforce who have at least the Foundation Level of Essential Digital Skills. There are a further c.2.4 million people in work who do not have this very basic level of skills, and as a result are not eligible to be counted in the workforce dataset. This is an important group, that should not be forgotten, but they are not the focus of this paper.

For this report, to assess a broader pipeline of talent and to segment the working population, PwC Research approached the data in the Lloyds Bank Essential Digital Skills Report 2021 differently. People in work who do not have the opportunity to actively use the work tasks, were included in the dataset, where normally they would not qualify. This approach retained the focus on people in work and increased the population under analysis.

Using this expanded dataset, the team explored:

- Top 10 workplace digital tasks people struggle with
- Groups of people in the workforce who have skills deficits

Factor analysis was used to identify underlying data trends by looking for patterns of responses. This identified four groups displaying similar characteristics with regards to their digital skills, particularly in relation to participants' abilities to perform work tasks.

Comparing these groups, both against each other and the total dataset highlighted the statistically significant differences between the groups and enabled the creation of four distinct personas, that are mutually exclusive.

## Lloyds Bank Essential Digital Skills Framework

Data used in the above analysis comes from the Lloyds Bank Essential Digital Skills research 2021, a full technical note for that can be found here<sup>40</sup>.

On behalf of Lloyds Bank, Ipsos interviewed a quota sample of 4,129 participants aged 18+ years in the UK (Great Britain and Northern Ireland) via their telephone Omnibus between 12th March - 25th April 2021. Quotas were set by age, gender, working status, property tenure, region and device ownership. Data are weighted to represent the known population of this audience. No quotas or additional weighting were applied to this analysis in addition to those used by Ipsos.

From this sample of adults 2,237 participants were identified as working. No further quotas were set on working habits, however a broad spread was achieved - 67% worked full time, 18% part time with 15% self employed. The working sample had a full range of personal income (8% earned up to £13,499 through to 7% earning upwards of £75,000 a year), hence we expect a range in terms of seniority. The sample also comprised a range of those working in small organisations (36% in those with 1-100 people), all the way through to those with more than 5,000 employees (27%) and sectors of employment.

## Population Estimates

Population figures are taken from estimates provided by the Office for National Statistics (2020 mid-year stats for the UK), weighted to the Labour Force Survey stats (Labour Force Study Aug-Oct 2020). For the Essential Digital Skills data, percentages are applied to a working population base aged 18+ (32,693,000).

Sources can be found below:

- [ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2020](https://ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2020)
- [ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/timeseries/mgrz/lms](https://ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/timeseries/mgrz/lms)

Whilst every care has been taken to ensure the robustness of our data, our data accuracy is limited by its sample size, and therefore there is a margin of error that exists around any figures reported. All significance testing is calculated at the 95% confidence level, with the 95% confidence interval to be used for all population extrapolations.

For example, it is reported that 32% (estimated 10.5 million people) cannot do the 'Being safe: I can set privacy settings on my social media and other accounts' task; however, the true population value will be  $\pm 1.9\%$  with a 95% confidence interval. Thus, there is 95% confidence that the correct figure is between 9.8 million and 11.1 million. Full details of the range (of which the population size of the group will lie in) for each population extrapolation based on the margin of errors, are available in the appendix.



## Population Estimates Confidence Intervals

PWC research have used the 30,265,000 estimated population of the workforce who have at least Foundation Level skills, unweighted base 2088. The extrapolations are based on ONS 2020 mid-year stats for the UK adults 18+.

Source	Reference	Percentage results	Estimated Grossed Figure (millions)	Lower Confidence Interval	Upper Confidence Interval
Page 9	<b>Transactional:</b> I can manage digital records and financial accounts (e.g. expenses, budgets) through digital systems	32%	9.8	9.2	10.4
	<b>Being safe:</b> I can set privacy settings on my social media and other accounts	32%	9.6	9.0	10.2
	<b>Being safe:</b> I can update my computer security systems when necessary to prevent viruses and other risks	30%	9.0	8.4	9.6
	<b>Communication:</b> I can set up and manage an account on a professional online network / community, (e.g. LinkedIn, Total Jobs, Indeed)	25%	7.7	7.1	8.2
	<b>Problem Solving:</b> I can use appropriate software, including a spreadsheet, to manipulate and analyse data	23%	7.1	6.6	7.7
	<b>Problem Solving:</b> I can use different digital tools to improve my own productivity i.e. saving time or working more efficiently	23%	6.9	6.4	7.5
	<b>Transactional:</b> I can access salary and expenses information digitally, including password protected payslips	22%	6.5	6.0	7.1
	<b>Handling information:</b> I can access, synchronise and share information across different devices (e.g. manage a calendar or appointment system via phone or desktop)	20%	6.0	5.5	6.5
	<b>Being safe:</b> I can assess the risks and threats involved in carrying out activities online and act accordingly (e.g. use security software)	19%	5.9	5.4	6.4
Page 11	<b>Communication:</b> I can use digital collaboration tools to meet with, share and collaborate with people (e.g. Skype/Google docs/Dropbox etc)	18%	5.3	4.8	5.8
	Digitally lacking Lou	12%	3.5	3.1	4.0
	Digitally safe Sam	17%	5.2	4.7	5.7
	Digitally vulnerable zoom-er Zayden	13%	4.0	3.6	4.5
Page 14	Higher performing digital Denny	58%	17.5	16.9	18.1



# The Essential Digital Skills Framework<sup>41</sup>

## Foundation Level Skills



- Turn on a device
- Use controls on my device
- Use accessibility tools to make it easier to use my device
- Interact with the home screen on my device
- Understand that the internet allows me to access information
- Connect my device safely to Wi-Fi
- Open a browser and use websites
- Understand that passwords need to be kept safely
- Update and change my password when prompted to do so

## Skills for Life – I can...



- Set up and use email
- Communicate with others online
- Create and share an electronic document
- Post messages and photos on social media
- ...plus 3 more

## Skills for Work – At work I can...

- Comply with policies and security protocols
- Communicate appropriately using online tools
- Use digital collaboration tools with colleagues
- Use professional online networks
- ...plus 2 more



- Understand that not all information online is true
- Use search engines
- Understand the cloud is a way to store content
- ...plus 5 more

- Understand not all online sources are reliable
- Search for news using an internet browser
- Store photos and music in the cloud
- Access content from different devices



- Make payments online
- Fill in forms online
- Buy goods and services online
- ...plus 3 more

- Set up accounts with retailers online
- Use travel websites to make reservations
- Apply for a job online
- ...plus 5 more



- Use the internet to find helpful information
- Use chat facilities to help me solve problems
- Use online tutorials to build my skills

- Use the internet to find specific information
- Use FAQs online to help fix something
- Use videos e.g. YouTube to learn new skills



- Understand the risks and threats online and the importance of working securely
- Understand the need for security software to protect from viruses
- Understand I must protect my own data, and not share the data of others without consent

- Use privacy settings on social media
- Recognise suspicious links and know not to click on them
- ...plus 8 more



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