



PROTECT. IMPROVE. GROW.

THE FUTURE OF DIGITAL APPRENTICESHIPS





EXECUTIVE SUMMARY

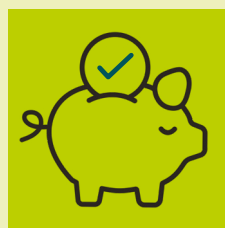
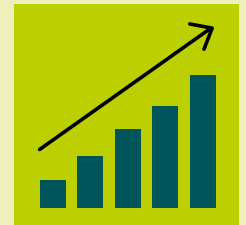
At BCS, we believe that digital apprenticeships are essential for meeting the growing demand for skilled tech professionals from businesses across the economy. They provide people from all backgrounds with vital skills and hands-on learning, and businesses with the talent they need to grow.


Ahead of the upcoming UK General Election on 4 July 2024, we look at the state of digital apprenticeships today and where we want them to be in the next five years.

There is a lot to celebrate when it comes to digital apprenticeships. Although they currently represent a relatively low proportion of total apprenticeships, that number is growing. They also have better completion rates than apprenticeships in many other occupational areas. We want future governments to protect the quality and integrity of digital apprenticeships and take proactive steps to build on their success. There are aspects of the current system that need improving, particularly reducing bureaucracy and increasing efficiency. We need to encourage higher rates of participation among SMEs to help fix the current supply/demand imbalance impacting availability. Funding mechanisms need to be managed carefully to ensure both new and transitioning workers are adequately supported.

The fact that digital apprenticeships in the UK are experiencing a period of growth is something to be celebrated. We ask the next government to accelerate this growth to attract more learners over the next five years by:

- Providing clarity and stability through government policy.
- Encouraging many more SMEs to take on more apprentices with dedicated support and financial incentives.
- Increasing collaboration and communication among the wider community of apprentice stakeholders to ensure digital apprenticeships keep up with emerging technologies and the needs of businesses.





**Foreword from Lucy Ireland,
Managing Director of BCS,
The Chartered Institute for IT.**

Together with its employer partners, training providers and fellow awarding organisations, BCS has seen the quality of digital apprenticeships significantly improve over the last five years, bringing some outstanding and much needed talent into the profession.

For thousands of employers and individuals, digital apprenticeships have been a resounding success. At the same time, we know there are aspects that need improving so apprenticeships can achieve the success they deserve in our fast-evolving digital world.

With these thoughts in mind, we explored the views of others by commissioning a YouGov survey of businesses and related stakeholders. This paper sets out our asks to PROTECT, GROW, and DRIVE GROWTH in digital apprenticeships, to unlock a new wave of technical growth and innovation.

Thank you for taking the time to read it, and we welcome all with an interest in digital apprenticeships to become part of the ongoing conversation.



PROTECTING THE VALUE OF DIGITAL APPRENTICESHIPS

DIGITAL APPRENTICESHIPS ARE MAKING AN IMPACT

Today, digital technology is everywhere. And it is changing how we live, work and connect. From simple daily tasks to major advances in science and medicine, innovation is having a huge impact on us all.

This has created exciting benefits and opportunities for individuals, organisations and communities and will help drive growth in the UK economy. But it also creates risks, especially around the ethical use of emerging technologies and data. To capitalise on the opportunities ahead, the UK needs more highly skilled digital professionals to build solutions, guide organisations and steer innovation over the coming decade.

Digital apprenticeships have become one of the best ways to meet the growing need for skilled tech professionals in every sector of the UK economy. They not only equip people with vital skills and hands-on experience, but also promote diversity and social mobility by opening doors for people regardless of their background and experiences.

At BCS, we believe that digital apprenticeships are better than ever at ensuring individuals get the opportunity to start and advance their careers and organisations get access to the talent they need. The positive impact of apprenticeships across the economy and society are clear.



WE HAVE A STRONG FOUNDATION

On 4 July 2024, the UK will hold a General Election. A potential change of government brings an opportunity to reflect on the state of digital apprenticeships today, how far they have come and where we want them to be in the next five years. Although digital apprenticeships currently represent a relatively low proportion of the overall number of people starting an apprenticeship, this number is growing, and they are achieving better completion rates than those in many other occupational areas.



Digital apprenticeships are already making an impact, and their potential future impact is especially important for enabling the UK's digital economy. Research by Accenture has found that improving the country's digital capabilities could add £33 billion to national output and grow the economy by 1.5 percentage points. According to PWC, 86% of UK CEOs are actively planning to automate processes and systems and 77% want to deploy technology solutions in priority areas of their business. Unlocking the potential benefits of technology requires access to a skilled and digitally savvy workforce.

Apprenticeships are enabling employers to fill skills gaps where they are increasingly competing for a limited number of competent professionals. Roles as diverse as data analysis, business analysis, artificial intelligence, cyber security, networks, software development, digital marketing, digital product management and more, are in high demand. Numerous studies show the surge in the requirement for data skills.

As the leading assessment organisation for digital apprenticeships, BCS has seen more than an 80% increase in demand, and emerging fields like machine learning and quantum computing are also creating new opportunities.



After more than 30 years, we know that the apprenticeship model has proved valuable in addressing employers' skills needs. Over time, and with changes of government, apprenticeships have evolved through policy updates. The most significant changes were the moves to introduce employer-designed standards, end-point assessments and the apprenticeship levy. The recommendations of the 2012 Richard Review helped to make digital apprenticeships more robust, ensuring both employers and individuals benefit from relevant knowledge, skills and behaviours.

A significant number of workers today got their start as digital apprentices in a variety of professions. In the past six

years, BCS has assessed 26,000 digital apprentices that are critical not just to the UK economy, but society as a whole. In just about every sector, including science, health, telecommunications, manufacturing, engineering, finance, travel, leisure and retail, some form of digital skills is involved.

Government data shows 85% of employers that had taken on apprentices believed they had a positive impact on the development of skills relevant to their organisational needs. Additionally, due to apprenticeships being more affordable than university degrees, they are also a powerful tool for helping employers attract a more diverse talent pool, which is exactly what is needed in the tech profession.

The possibility of a new government creates a potential moment for further positive change – and it brings potential risks too. We must protect what's already good about the apprenticeship system, celebrate and build upon it.

DIGITAL APPRENTICESHIPS IN THE UK ARE WORKING



52%

The number of digital apprenticeships increased by over 52% between 2020/21 and 2022/23.



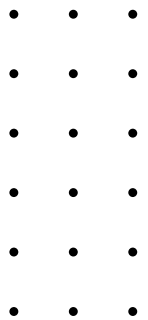
22,490

Number of apprentices in 2022/23.



96.2%

Digital apprenticeships have some of the highest first-time end-point assessment pass rates at 96.2%.



The quality and reputation of digital apprenticeships

Over the last decade, digital apprenticeships have consistently improved in quality, becoming more rigorous and



effective. It is crucial that we protect this high standard and continue building on it. The general design of apprenticeships, including structured off-the-job training, practical, hands-on experience, and independent assessment has boosted confidence in the standard and quality of apprenticeships among individuals, employers and educators. The consensus is that the reputation of a digital apprenticeship today is better than it was 10 years ago.

While the English apprenticeship system is sometimes compared negatively to our international counterparts, we have a lot to be proud of. We have a system with a consistent standard, a community of registered providers and assessors, a focus on quality assurance and

a dedicated levy to fund training. Furthermore, there is a community of people and organisations championing apprenticeships in the UK, wanting to achieve the very best for apprentices, and doing everything they can to raise the profile of the programme. For the next government, this enthusiasm and commitment is good news, and something to protect and nurture.

It is testament to the work of everyone involved in apprenticeships that improved outcomes have also enhanced their credibility and enabled opportunities to link with broader educational options. The inclusion of apprenticeships on the UCAS hub in 2023 and plans for UCAS points to be applied to apprenticeships from 2024 are a huge and very positive development. To protect and build on these gains, it will be important to enhance effective feedback mechanisms from apprentices, employers, training providers and assessment organisations. Together, in collaboration, we have crucial roles to play in continuously improving the quality and relevance of apprenticeships.

Let's not forget the benefits of the levy

The apprenticeship levy has been a key element in the success of digital apprenticeships, helping focus employers' minds not only on the immediate benefits of training, but also the opportunities to embed apprenticeships within their longer-term talent management strategies. It was encouraging to see the levy transfer option increase to 50%, opening the opportunity to engage more SMEs. Protecting this spirit of inclusivity and encouraging broader participation from a range of employers is crucial for the long-term success and sustainability of apprenticeship programmes.



50%

The levy transfer option increased to 50%, opening the opportunity to engage more SMEs.

While some concerns were expressed in our research around increasing the levy flexibility, critically, the emphasis was on preserving the value of apprenticeships to individuals and organisations. Any changes to the apprenticeship levy should be considered carefully to avoid unintended consequences and designed to enhance confidence in the quality of funded training and assessment.

The Labour manifesto has stated it would seek to implement several changes, including transforming the apprenticeship levy into a 'growth and skills levy'. It would allow businesses to use up to 50% of the levy on non-apprenticeship training such as modular courses, governed by Skills England. If the levy is made more flexible, which seems likely, it is critical that the new policy is designed in a way that has both learners' and employers' best interest at heart. For employers, there can be advantages to extra flexibility around levy spending. For individuals, it is crucial that they continue to receive quality assured learning and, if receiving modular learning, that it is based on a sound credit-based structure that supports ongoing progression.

The Conservative manifesto said it would create "100,000 more apprenticeships in England every year by the end of the next Parliament", as well as reforming education for 16–19-year-olds to "end the damaging divide between academic and technical education". The Liberal Democrats too, say they will boost apprenticeships. The Green Party and Reform UK, amongst other parties, have not explicitly mentioned apprenticeships in their manifesto.

Digital Apprenticeships are improving inclusivity

Our analysis of ONS data shows that, if current trends continue, it will take 280 years to close the gender gap in IT. This not only limits the career choices of women, but ultimately impairs the entire economy too. This imbalance can be traced back to education, where 94% of girls compared to 79% of boys drop computing at age 14. More generally, boys and girls drop computing in school as soon as they are able to. By offering an alternative route to pursuing a digital career, digital apprenticeships can play a key role in turning around this gender imbalance and increase diversity and inclusion in the profession.

We live in a period of significant technological change. As the first digitally native generations start to navigate the world of work, many older workers may find themselves in need of upskilling or retraining. Making it easier for people to access relevant learning opportunities will help them lead healthier, more fulfilled lives while enhancing the UK's ability to compete in a fast-evolving digital landscape.

Measures could also be implemented to incentivise employers to offer more opportunities to new entrants, ensuring there is a balance between recruiting new talent and upskilling existing staff. This could include financial incentives, such as a commitment to provide levy underspend directly back to non-levy paying employers to help fund apprenticeships for those starting a career.



66%

Two thirds of respondents surveyed think that digital apprenticeships are effective in addressing digital skills gaps in England. Nearly a quarter (23%) think they are very effective.



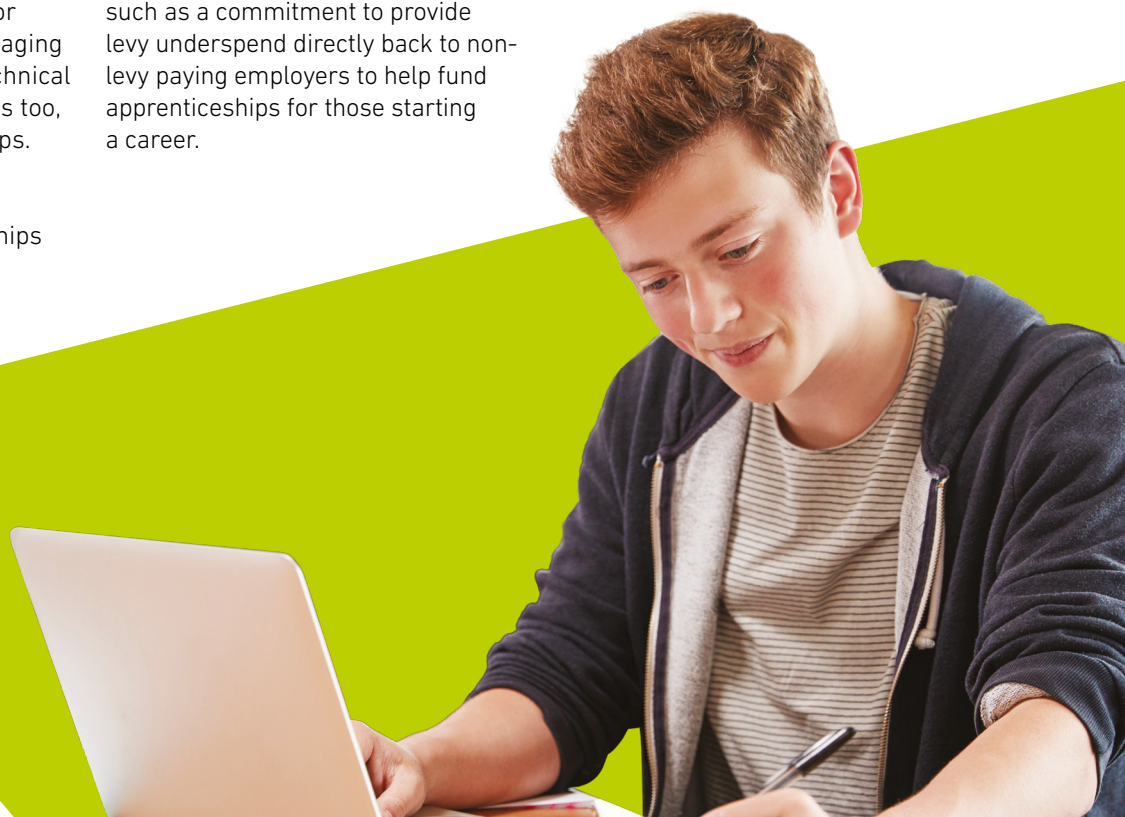
46%

of respondents said that improved communication channels between those who design apprenticeships and those who train and assess them would drive growth.



36%

said that strengthening the partnership between government and industry bodies was also needed.





IMPROVING THE APPRENTICESHIP EXPERIENCE

We know there is a growing demand from individuals and employers for digital apprenticeships, which is very encouraging. As we go into the new phase following the UK General Election, there are actions we can take to make digital apprenticeships – and apprenticeships in general – even better.

Working together we can improve the process of apprenticeships

Our research shows that both training providers and employers believe the current system could be less bureaucratic and more efficient. For example, the process of developing, reviewing and updating apprenticeship standards could be faster. Participants highlighted that in some extreme cases, the process of developing or updating an apprenticeship could take well over a year. Drawn out processes can make it challenging for employers to stay engaged and motivated as part of Trailblazers (the groups of employers responsible for setting the apprenticeship standard and assessment), and for providers and assessment organisations to plan their delivery. It was also stressed that the very best trailblazer experience draws on the know-how and expertise of all stakeholders, including employers, providers and assessment organisations, from the beginning, helping avoid issues down the line once an apprenticeship goes live.

Providers and assessment organisations must comply with strict levels of auditing which is only right considering the responsibility to apprentices, their employers and the public purse. However, there was a strong feeling from providers we spoke to that the current approach adds layers of complexity that detract from

the focus on delivering quality training. These complexities are compounded by what is felt as a lack of, or inconsistent, cross-collaboration between government bodies and agencies.

Overall, the message coming from our research was: let's work together to take sensible steps to remove unnecessary bureaucracy which passes down the line to apprentices and employers. Additionally: let's take the opportunity as a community of apprenticeship stakeholders to communicate and collaborate more.

Increasing participation of SMEs

As a broad range of sectors seek to harness the benefits of technology, a diverse set of employers find themselves in need of digital skills. Moving forward, there's a necessity to engage more SMEs. To ensure their needs are met, it is essential that these employers feel part of the system, encouraging, for example, more localised participation, so they are more closely involved in the development of apprenticeship standards. Their input will not only ensure that the training meets a broad spectrum of employer needs but can also support SME's overall buy-in to apprenticeships.

Any new funding system needs to do better to engage and support SMEs and achieve more than the 95% co-

investment has. But how can funding be used to increase engagement and support SMEs? While the levy transfer increase to 50% this year is a positive step, feedback is that the transfer process could be made more straightforward.

Exploring different ways to measure success

This paper looks at two aspects of measuring success. Firstly, valuable outcomes for the apprentice and secondly, how the success of the overall system is measured.

To achieve valuable outcomes for apprentices, it is important to ensure that they get the best possible experience during their training and assessment, with the partnership between the employer, provider and assessment organisation a key part in making this happen.

As apprenticeships evolve, we need to think about how apprentices are assessed and make sure that the design of apprenticeship training and assessment is fit for purpose in relation to the occupation. Practical assessments are crucial in digital apprenticeships because they emphasise real-world applications of acquired skills. When developing and reviewing apprenticeships, the aim should be to ensure apprentices can demonstrate

these new skills in the most appropriate way that is not excessively challenging or makes them jump through unnecessary hoops which can be discouraging. This is where a consistent and collaborative approach involving all stakeholders in apprenticeship design and development could make all the difference.

Solving the functional skills problem

The issue of functional skills in apprenticeships has been a source of debate for over a decade and continues to be an area warranting further discussion.

Functional skills requirements, while essential, have proven to be a significant barrier for many apprentices who may have struggled at school but have demonstrated their competency in practical and technical aspects of their roles. Applying functional skills requirements rigidly can discourage these individuals.

The functional skills challenge must be addressed. If apprentices are to learn these important functional skills, we need to work on innovative solutions that actively involve employers and their training partners in shaping training delivery to ensure it aligns with industry needs.

Funding new talent as well as reskilling

Some respondents mentioned that the shift towards using the apprenticeship levy to train existing staff rather than new apprentices risks prioritising upskilling over nurturing new talent, which could result in fewer young people entering apprenticeships.



Funding mechanisms and policies should be managed carefully to enable growth and development opportunities for both new and transitioning workers in the digital economy.

Stakeholders highlighted the importance of appropriate funding allocation to support new entrants and young people, without adding constraints to small

businesses. Future policies should strive to ensure funding is distributed effectively and equitably across organisations of all sizes and sectors, while recognising where additional investment will maximise successes, for example, apprentices completing the programme and satisfied, engaged employers.

The April 2024 policy change, which funds 100% of apprenticeship training costs for apprentices aged 16–21, is a positive step. Extending this support to a broader range of apprentices, especially those employed by non-levy-paying employers, could encourage greater participation from both individuals and organisations, fostering a more inclusive and skilled digital workforce.

Fixing the supply/demand imbalance

Our research highlighted an imbalance between the demand for digital apprenticeships and the supply of opportunities available. This imbalance is likely to worsen as more people look to expand their digital skills.

While larger employers might have mature and sophisticated apprenticeship programmes, many SMEs do not take on apprentices at all. Additionally, apprenticeship opportunities are not always spread evenly across digital disciplines and can be more concentrated in some regions than others, creating imbalances in supply and demand.

Future governments could look to develop targeted communication campaigns, e.g., on a local basis, targeting specific needs, to raise awareness of the benefits of digital apprenticeships. The need for more schools to genuinely integrate apprenticeship information into their curriculum planning, while taking into account local skills needs, also emerged as a common theme of our research. This will help students understand the value of apprenticeships and consider them as viable career paths. Too often apprenticeships are considered by many as the second-best option. And while this belief is less widespread than before, there is more to do to encourage young people to consider apprenticeships as exciting opportunities in their own right.

WE ASKED WHAT SPECIFIC IMPROVEMENTS COULD MAKE DIGITAL APPRENTICESHIPS MORE ATTRACTIVE TO EMPLOYERS. THE RESULTS WERE:



55%

Enhanced financial incentives for employers.

45%

Increased flexibility in the structure of apprenticeships.

44%

Improved access to training resources and support.

39%

More streamlined administrative processes.



75%

of HR decision makers surveyed identified problem-solving as the top skill crucial for their business success.

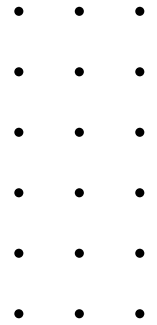
This was followed by:

- Resilience 58%.
- Creativity 52%.
- Collaboration 65%.
- Emotional Intelligence 44%.



47%

Nearly half of all respondents surveyed suggest that the levy should be spent on personal and professional skills.



DRIVING GROWTH IN DIGITAL APPRENTICESHIPS

We are at a pivotal moment for the UK economy and digital apprenticeships represent a huge opportunity to close digital skills shortages and power technological innovation. The demand for digital skills is growing, encompassing future needs we can't fully predict. Emerging technologies are reshaping industries, and it's crucial to ensure we're leveraging them effectively. In this context, the fact that digital apprenticeships in the UK are experiencing a period of growth is something to be celebrated. We ask the next government to accelerate this growth to attract more learners over the next five years.

Digital apprenticeships are key to making sure businesses are equipped to seize the opportunities of the digital age – as well as mitigate the risks. They help produce competent, ethical and accountable professionals who can positively impact the tech sector, the broader economy and society as a whole. We need to explore the opportunities that technology offers for the apprenticeship ecosystem. It is clear that technologies like AI

will transform how apprenticeship programmes are designed and assessed, and how apprentices will join the workforce. It's an exciting time and the steps taken today will have a huge impact on our ability to shape a future where people can build long, rewarding careers in an economy powered by sustainable growth and innovation.

Our Ask

Providing clarity and stability through government policy.

An overhaul of digital apprenticeships could lead to disengagement from both learners and employers. Policy changes should instead build on the established strengths of the apprenticeship system rather than making significant changes that could have unintended consequences.

There is strong demand for clear and consistent information from the government regarding any changes to apprenticeship policies and funding as frequent changes in funding rules and policies make long-term planning

and investment incredibly challenging. Clear guidelines and stable funding models are an important part of encouraging employers to take on apprenticeship programmes.

There are also differences in awareness and understanding of apprenticeship policies among different stakeholders. This suggests the need for more open communication from the government to provide regular updates and clear, consistent information on apprenticeship policies and funding – and to be accessible and in dialogue with the apprenticeship community as a whole.



Supporting smaller businesses

Unlocking the potential of digital apprenticeships over the next five years relies on convincing more SMEs to engage with the process.

One of the obstacles deterring SMEs is the perceived complexity and bureaucracy associated with taking on apprentices. Streamlining the application and management processes would make it easier for SMEs to participate. Smaller businesses often lack the internal resources needed to manage apprenticeship programmes effectively. So, providing dedicated support such as recruitment assistance and financial incentives like grants or tax breaks could be a huge motivator. The 5% co-funding requirement for non-levy paying organisations is another barrier. Scrapping it would reduce the disproportionate impact of co-funding requirements on smaller businesses.

Campaigns that take a more localised approach to addressing specific needs may help overcome misconceptions about digital apprenticeships and improve engagement. Continuing to share relatable success stories and champions within local networks, such as the existing ambassador networks, are important catalysts to engage SMEs and future apprentices.

Collaboration

There are several references to collaboration across this paper. The more the wider community of apprenticeship stakeholders can work

together, the better the apprenticeship experience can be for both individuals and employers. Open communication and collaboration are key to making apprenticeships a valuable experience. Together we can make apprenticeships better and be a powerful force to ensure the digital skills needs of the coming five years are addressed.

Keeping up with technological innovation

While we don't know what the working world will look like in 20 years, we know businesses will need people with the right skills, ethical mindsets and resilience to take on new challenges. In areas like AI, machine learning, analytics and quantum computing, apprenticeships will need to align with evolving industry needs and technological advancements to ensure that apprentices are well-prepared for their future careers.

Over the coming years, organisations will increasingly need competent candidates with the practical and human skills to understand how to use new technologies effectively and appropriately. Digital apprenticeships can shine in this area by prioritising training that is hands-on, focussed on the all-round development of individuals and is aligned with real-world technological advancements. One example of how apprenticeships can shape the digital workforce of tomorrow is through more closely addressing the ethical use of AI. By incorporating ethical AI practices and governance into apprenticeship training programmes, learners will have crucial practical experience on how to handle the ethical challenges associated with AI technologies, making them well-equipped to play an important role in the future development and evolution of AI.

WE ASKED RESPONDENTS WHAT THEY THOUGHT WERE THE BIGGEST BARRIERS HINDERING THE GROWTH OF DIGITAL APPRENTICESHIPS. THEY SAID:



38%
Perceived complexity of managing apprenticeships

37%
Availability of funding

36%
Lack of awareness and promotion

32%
Funding levels

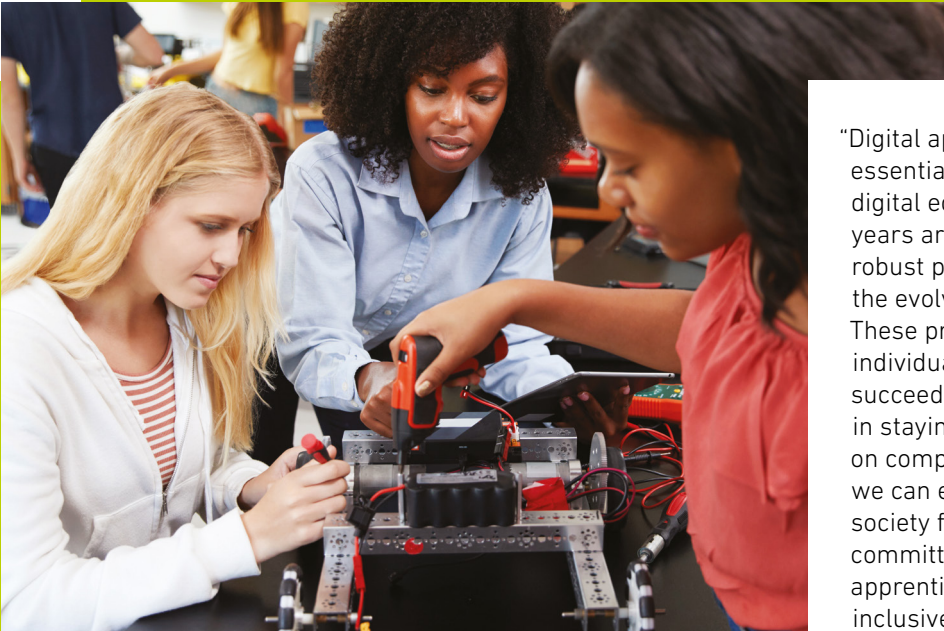


55%
More than half of respondents surveyed agree that enhanced financial incentives for employers would make digital apprenticeships more attractive to both employers and prospective apprentices.



42%
Around two-fifths (42%) of respondents surveyed think that AI will impact apprenticeships in how training is designed and delivered and how assessment is designed and delivered (41%).





“Digital apprenticeships are essential for the future of our digital economy. The next five years are crucial as we strive to build a robust pipeline of talent that can meet the evolving demands of technology. These programmes not only provide individuals with the skills needed to succeed but also support businesses in staying competitive. By focusing on competency, ethics and diversity, we can ensure that IT transforms society for the better. At BCS, we are committed to championing digital apprenticeships and fostering an inclusive, skilled workforce ready to tackle the challenges ahead.”

Rashik Parmar MBE
Group Chief Executive, BCS



REFINE RATHER THAN REDESIGN

Digital apprenticeships are a powerful force across the UK, opening career paths in the digital sector and serving as vital tools for businesses and the economy. We believe the current system is working well and that drastic change could disrupt the positive momentum achieved over recent years.

However, our research highlights key areas for enhancement: better communication of apprenticeship benefits, especially in emerging sectors; reducing complexity and bureaucracy in the system. These are the kind of targeted, incremental changes that would provide employers with greater flexibility and certainty to open up growth opportunities for people of all ages, and backgrounds, across all sectors within the digital economy. Alongside greater collaboration and coordination between government, employers, training providers and educators, we think these changes would help ensure that more people can access the potentially life-changing opportunity of a digital apprenticeship.

About BCS, The Chartered Institute for IT

BCS is the professional body for information technology. Our purpose, as defined by Royal Charter, is to promote and advance the education and practice of computing for the benefit of the public. With around 70,000 members, BCS brings together academics, practitioners, industry and government to share knowledge and shape policy. BCS is the leading end-point assessment organisation for digital apprenticeships.

BCS commissioned YouGov to conduct research on its behalf. This research was carried out in two surveys: one conducted between 26 January and 2 February 2024 targeted at 500 HR decision-makers, and one conducted between 18 April and 1 May 2024 targeted at 1,000 HR decision-makers.



REGISTER TODAY

If you want to be a part of BCS' ongoing conversation about digital apprenticeships, register for updates with this QR code.

