BCS, The Chartered Institute for IT

Submission to the Business and Trade Committee Call for Evidence: Artificial Intelligence, business and the future of the workforce

April 2026

1. Introduction

1.1 BCS, The Chartered Institute for IT is the professional body for technology – representing 70,000 people working across technology today.

1.2 BCS has breadth across the AI skills landscape. Through Computing at School (CAS)[1] we provide guidance and materials to over 90% of UK schools and have supported over 3.5 million pupils, and our Barefoot programme has reached 85% of UK primary schools[2]. Combined with our 70,000 members spanning every sector and seniority level, and our close working relationships with DSIT and DfE including on curriculum reform, BCS understands the technology skills pipeline from early years to the most senior professionals.

1.3 Our evidence draws primarily on the BCS Tech Priorities Survey 2025[3], supplemented by qualitative insight from our membership and networks across education, apprenticeships and professional development. We are pleased that our research was cited in the Committee's previous report, and we welcome this opportunity to show how the picture has evolved. We are also currently running the Tech Priorities Survey 2026, which is expected to conclude within two to three weeks, and would welcome the opportunity to present its findings, including new data on AI adoption, to the Committee in an oral session.

2. AI adoption

2.1 In January 2025, BCS research indicated that AI deployment is already concentrated in a small number of sectors, led by Information Technology (17%), Customer Services (14%), and Health and Social Care (14%), followed by Publishing/creative industries (9%), Marketing (7%) and Education (7%).

2.2 Within Information Technology, AI is being deployed both as an enabling layer and as a direct productivity tool. Use cases include code generation, documentation, infrastructure management, cybersecurity threat detection, and automation of software

engineering and IT support tasks. Respondents emphasised that AI aids in code generation, documentation, and software development, providing efficiencies and enabling quicker delivery times, with many foundational IT systems already AI-ready.

2.3 AI adoption in IT is also driving increased research and development investment, with organisations acting as early adopters or “guinea pigs” to test applications before wider cross-sector deployment. As one respondent noted, IT is “the only industry generally capable of understanding and implementing meaningful AI solutions” at present, reinforcing its role as both developer and first mover.

2.4 In Customer Services, AI is already widely deployed at scale, particularly through chatbots and autonomous agents handling routine queries, ticket management and information retrieval. Respondents highlighted this as “low-hanging fruit” due to “decades of historical ticket logs” providing high-quality training data. AI is primarily used to reduce costs, enable 24/7 service, and improve speed and personalisation, with human staff increasingly focused on complex cases.

2.5 In Health and Social Care, AI deployment is focused on data-intensive and time-critical applications, including medical imaging, diagnostics, predictive analytics, and administrative automation. Respondents pointed to AI’s “proven capabilities” in reading scans and detecting anomalies, alongside its role in reducing bureaucracy and supporting overstretched professionals. AI is also being used to enable faster diagnosis, personalised treatment, and public health monitoring.

2.6 Across these leading sectors, common use cases include: automation of repetitive tasks; analysis of large datasets; augmentation of professional decision-making; and enabling personalisation at scale. AI is primarily being deployed as a tool to enhance human capability rather than replace it entirely, with “a lot of the grunt work” automated while “people add value by refining the results.”

2.7 Adoption is evident across both public and private sectors, particularly in healthcare (public service delivery) and customer services (predominantly private sector), as well as within IT functions that underpin both. Larger organisations and those with existing digital infrastructure are leading adoption, reflecting their greater access to data, skills, and investment capacity.

2.8 Our research also found that 61% of senior tech leaders (‘Leaders’) considered AI to be the deepest existing skills gap within their organisations. This is up from 59% the previous year and shows a substantial and growing need for AI skills. Qualitative research amongst peer organisations and within professional communities has further reinforced BCS’ conviction that the AI skills gap is already fundamental for businesses – and most acute for SMEs and those that are not primarily technologically focused.

2.9 Only 5% of leaders and IT professionals thought their organisation would have enough resources to achieve their priorities for 2025.

2.10 AI adoption varies significantly by sector, technical capability, and workforce readiness. Sectors with strong digital foundations, high-quality data, and clear use cases - such as IT, customer services, and healthcare - are adopting AI more rapidly. In contrast, sectors such as law (2%), manufacturing (2%), and retail (3%) show lower levels of perceived impact, reflecting higher barriers to implementation.

2.11 A key driver of variation is technical capability and skills availability. IT professionals are better positioned to adopt AI tools effectively, while other sectors face a barrier for entry due to lower technical competency. This contributes to a lag in adoption outside digitally mature industries.

2.12 Data availability and quality is another critical factor. Customer service benefits from “well-annotated” historical data, while healthcare is “already data-rich,” enabling AI applications in diagnostics and analytics. In contrast, sectors with fragmented, inaccessible, or lower-quality data face slower adoption.

2.13 Workforce impacts and organisational readiness also shape adoption. Respondents anticipate job reductions in routine and mid-level roles, particularly in IT and customer services, alongside a shift toward higher-value work. However, successful adoption depends on workforce adaptation, including the ability to integrate AI tools into workflows and refine outputs.

2.14 Clarity of business case and return on investment remains a barrier. While some organisations report positive ROI particularly in software development tools and productivity aids, others note that solid business use cases remain infrequent, with AI sometimes seen as “a tool to play with” rather than a core operational necessity.

2.15 Trust, governance, and ethical considerations are significant constraints, particularly in sensitive sectors such as healthcare. Respondents highlighted the need for governance frameworks that are focused on good practices, transparency in data use, and effective regulation with enforcement capability. Concerns around privacy, data protection, and reliability continue to influence adoption decisions.

2.16 User capability and accessibility also affect outcomes. While AI enables self-service, some respondents cautioned that “not everyone knows how to ask questions in the right way,” limiting effectiveness if tools are deployed directly to end users without support. This reinforces the importance of human-in-the-loop models and intermediary expertise.

2.17 Finally, cultural and behavioural factors play a role. While many respondents emphasised the need to “embrace” AI, others pointed to “unwarranted fears” and a lack of understanding as risks to effective adoption. Balancing innovation with safety remains a central challenge, with some advocating a more cautious approach to ensure a “comprehensive understanding” before widespread deployment.

2.18 Overall, AI adoption across the UK economy is uneven but accelerating, driven by clear use cases, data availability, and organisational capability, while constrained by skills gaps, governance challenges, and uncertainty around value and risk.

3. Skills, Education & Transitions

3.1 BCS research indicates that AI capability is now a core skills requirement across the workforce, with a clear need for enhanced IT capability within existing teams and increased digital literacy across the wider workforce. This reflects the shift from AI as a specialist function to a general-purpose tool embedded in day-to-day work.

3.2 For workers, the key requirement is applied AI literacy: the ability to use AI tools effectively within their role, interpret and validate outputs, and integrate them into workflows. This is less about deep technical expertise and more about confident, critical use - combining AI outputs with domain knowledge, judgement, and an understanding of data and systems.

3.3 Alongside this, there is a growing need for complementary skills that enable effective use of AI, including data handling, problem-solving, user-centred design, and communication. These ensure that AI is used appropriately and that outputs are translated into meaningful outcomes.

3.4 For managers, the skills requirement is broader and more strategic. Leaders need sufficient understanding of AI to make informed decisions about deployment, risk, and investment, as well as the ability to lead organisational change. This includes understanding where AI adds value, how to integrate it into business processes, and how to manage associated risks.

3.5 There is also an increasing need for governance, ethical awareness, and professional accountability. As AI becomes more embedded in decision-making, organisations will require clear standards of competence and responsibility, particularly in roles with significant societal or organisational impact.

3.6 Current education and training systems are not yet fully aligned with the pace and nature of AI-driven change. While formal education remains important, it is often too slow to adapt to rapidly evolving technologies and workplace needs.

3.7 The most effective approaches to skills development are those that are flexible, continuous, and closely linked to practical application. On-the-job learning is the dominant model, supported by modular learning, continuing professional development, and professional certification.

3.8 Organisations are addressing skills gaps through a mix of upskilling existing staff, mentoring, apprenticeships, and structured skills frameworks. These approaches allow capability to be built incrementally and in context, rather than relying solely on external hiring.

3.9 For SMEs and lower-paid or insecure workers, accessibility is critical. Effective reskilling models are those that minimise barriers to entry - offering flexible, bite-sized learning, employer support, and recognised credentials that can be built over time. Without this, there is a risk that AI adoption will widen existing inequalities in access to skills and opportunity.

3.10 Education systems will also need to adapt in how they teach and assess. As AI tools become widely available, the focus will need to shift toward developing understanding, critical thinking, and the ability to work alongside AI, rather than simply reproducing knowledge. This should be reflected in reforms at the primary, secondary, and further levels of education.

3.11 Supporting workforce transition in the context of AI requires a focus on augmentation and job redesign rather than replacement. This means enabling workers to use AI to enhance productivity and shift toward higher-value activities, rather than simply automating roles without support.

3.12 Employers play a central role in this transition. Key actions include investing in workforce upskilling, providing time and resources for learning, and redesigning roles and processes to reflect new ways of working. This ensures that AI adoption is aligned with workforce development rather than occurring in isolation. Productivity gains should also be understood in terms of meaningful work: decisions about what to automate need to be informed by workers themselves, recognising that tasks people value, even if not obviously efficient, can contribute to job satisfaction and performance. Effective AI deployment therefore requires both top-down direction and bottom-up input, ensuring task allocation enhances rather than diminishes the quality of work.

3.13 Leadership capability is particularly important. Organisations need leaders who can translate AI potential into practical changes in how work is organised, ensuring that technology adoption is accompanied by appropriate changes in roles, responsibilities, and workflows.

3.14 Government can support this by enabling accessible and flexible adult learning, supporting apprenticeships, continuing professional development, and work-based training, and ensuring that regulatory and governance frameworks provide clarity and confidence for organisations adopting AI.

3.15 More broadly, successful transition depends on building confidence and capability across the workforce. This includes improving general digital literacy, supporting lifelong learning, and ensuring that individuals at all levels have the opportunity to develop the skills needed to work effectively with AI.

3.16 Overall, skills, education, and workforce transition must be addressed together. AI adoption will only deliver sustained benefits if workers are equipped to use it effectively, organisations are able to redesign work appropriately, and education and training systems are flexible enough to support continuous change.

4. Government Strategy, Regulation & Rights

4.1 The most effective policy approach treats AI skills and adoption as a distinct challenge from previous waves of workplace technology. AI is qualitatively different, and is applicable across both technical and non-technical roles. This requires a shift away from traditional, linear skills delivery models toward approaches that are broader, faster, and more adaptive.

4.2 On the individual side, the primary policy lever is engagement. Workers need to experience AI as something that improves their current job: removing routine tasks, increasing job satisfaction, and enabling progression. Achieving this at scale requires a multi-channel approach, delivered simultaneously through employers, trade unions, local and regional skills systems, and national frameworks.

4.3 Existing skills frameworks should continue to be updated to incorporate AI competencies, but the method of delivery must evolve as necessary. Traditional education and training routes alone will not be sufficient to upskill the scale of the workforce required. Instead, policy should support flexible, distributed and work-based learning models that can reach millions of workers quickly and effectively.

4.4 On the organisational side, the key lever is assurance and clarity. Organisations require practical guidance, credible use cases, and a clear understanding of risk before they are willing to invest capital, workforce capacity, and organisational focus into AI. Policy should therefore prioritise the development of evidence-based guidance and tools that enable organisations to assess and manage AI risk confidently.

4.5 In this context, engagement with risk is not a barrier to adoption but a precondition for it. Clear, practical frameworks that help organisations understand where AI can be deployed safely and effectively are essential to unlocking adoption at scale across the UK economy.

4.6 Government support should be structured around two complementary value propositions: one for individuals and one for organisations, with clear links between them.

4.7 For individuals, Government should support a broad, accessible skills and awareness offer that frames AI in terms of personal benefit - career development, improved job quality, and more meaningful work - rather than solely productivity gains. This offer should be delivered through multiple channels, including employers, trade unions, and regional programmes, ensuring that it reaches the full workforce, not just those in technical roles.

4.8 For businesses and employers, the priority is building confidence. Government should support the development of a robust AI assurance infrastructure that enables organisations to deploy AI systems responsibly and at scale. This includes supporting models such as AI assurance ecosystems that provide independent validation, risk assessment, and ongoing oversight.

4.9 AI assurance (independent verification that AI systems are safe and trustworthy) is essential to confident adoption. The DSIT-convened UK AI Assurance Stakeholder Consortium is building the professional standards and infrastructure to make the UK a global leader in this emerging field.

4.9 A well-developed AI assurance capability serves multiple purposes. It enables organisations to manage risk and build trust with customers and the public, while also creating economic opportunities. The UK is well-positioned to develop a globally competitive AI assurance sector, drawing on existing strengths in professional services and finance, and supporting the creation of high-quality jobs.

4.10 Taken together, this dual approach - broad-based workforce engagement and strong organisational assurance - provides a foundation for scaling AI adoption in a way that is both economically effective and socially inclusive.

4.11 BCS identifies a clear and accelerating trend toward the need for stronger professional standards and accountability in technology. The role of digital systems and AI in society has now reached a level of significance comparable to established professions such as medicine, law, and engineering - where professional registration, formal standards, oversight and accountability are already the norm. As technology reaches this same level of societal impact, equivalent expectations of professional registration and accountability should apply to those designing, deploying and managing AI systems.

4.12 As AI systems increasingly shape economic activity and public services, those responsible for designing, deploying and managing them must be held to appropriate standards of competence and ethics. This includes not only technical capability, but also responsibility for outcomes, transparency, and adherence to professional codes of conduct.

4.13 Professional registration and accreditation are key mechanisms for achieving this. Expanding professional standards across both public and private sector technology roles can provide assurance to employers, commissioners, and the public that individuals working with AI systems meet recognised levels of competence and integrity.

4.14 There are already positive developments in this direction, including moves to expand professional registration within public sector digital and technology teams and the development of third-party assurance models in the private sector. These approaches help to embed accountability while supporting innovation and adoption.

4.15 Government support will be essential to scale this approach. By backing professional standards, supporting registration frameworks, and enabling the growth of an AI assurance profession, Government can strengthen trust in AI systems while also supporting the development of high-quality, ethical technology careers.

4.16 Overall, a strategy that combines skills development, organisational assurance, and professional accountability provides a coherent framework for supporting AI adoption. It enables innovation while managing risk, supports workforce transition, and builds the public trust necessary for long-term success.

6. References

[1]:https://www.computingatschool.org.uk/about-us/empowering-teachers-inspiring-young-minds/
[2]:https://www.barefootcomputing.org/about-barefoot
[3]:https://www.bcs.org/policy-and-influence/tech-and-society/tech-priorities-skills-and-the-ai-outlook-for-2025/

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