Teens in AI

The AI Readiness Gap Starts Early

Why Schools, Industry and Government must prepare young people for an AI future

A concise White Paper arguing that AI readiness must begin before employment and be built through coordinated action across education, industry and government.

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EXECUTIVE SUMMARY

Teens in AI

Eight years of evidence. One urgent message.

Teens in AI has been building practical AI readiness for young people since 2018 - before most governments had published national AI strategies, before most schools had considered AI policy, and before most employers had begun asking what AI-ready talent looks like. What follows is not commentary from the sidelines. This analysis is grounded in eight years of delivery, a global community of 40,000+ young people across 102 countries, and original research conducted in May 2026.

Artificial Intelligence is already reshaping how young people learn, work and make decisions. Yet the responses most visible in policy, industry and education continue to start too late - focused on the workplace rather than on the earlier moments where confidence, access and aspiration are first formed. This creates a growing readiness gap. And the young people living it are starting to say so. **A May 2026 survey conducted by Teens in AI found that nearly 70% of young people surveyed use AI tools every day. Yet nearly half - 48% - said their school is 'not really' or 'not at all' preparing them for a future shaped by AI.**

Almost all of them - 94% - can imagine themselves in a future role that uses AI. The ambition is there. The pathway is not. The missing pathway is not theoretical. Teens in AI has already tested practical routes through hackathons, AI-for-Good challenges, mentoring, role models, online self-paced courses through its AI Adventures learning platform, and real-world industry engagement.

The policy context is moving fast. AI Growth Zones, the Sovereign AI fund and the Government's Skills in the Age of AI Report all signal government ambition - yet schools are still navigating uneven guidance, implementation and teacher confidence around AI use. Schools, industry and Government each have a distinct role in closing that gap.

70%

Use AI Daily

Young people already engaging with AI as a daily reality

48%

Not Prepared

Say school is not preparing them for an AI-shaped future

94%

Can Imagine a Role in AI

Envision themselves in a future career using AI

56%

Want Hands-On Learning

Say practical projects would help them most

Without joined-up action, the young people most affected will be those already least well-served. Without deliberate intervention, the AI economy risks reproducing existing inequalities at greater speed and scale.

SECTION ONE

Teens in AI

The Problem: AI Readiness is being addressed too late

Much of the current conversation around AI readiness is focused on the workplace. Governments are publishing national AI plans. Employers are reconsidering what entry-level roles look like in an AI-enabled economy. These efforts matter: but they are incomplete.

The UK is building AI infrastructure faster than it is building the human pipeline required to sustain it.

Teens in AI has observed this gap directly since launching in 2018. At that point, AI education was largely absent from schools, industry engagement with young people on AI was almost entirely reactive, and the policy conversation was focused on regulation rather than preparation. Eight years on, the infrastructure investment has accelerated dramatically, but the education pipeline has not kept pace. That observation is no longer just ours. The young people we work with are saying it themselves.

Confidence, exposure, aspiration and perceived relevance do not begin at the point of hiring. They begin much earlier. And for many young people, the signals from school are not encouraging.

AI readiness begins when young people first encounter AI systems, form beliefs about who belongs in technology, and decide whether they see themselves as capable of shaping the future or merely adapting to it.

> ***I want to really learn about AI, however I feel the teachers are not equipped with the skills to guide me.***
>
> **~ Survey respondent, Teens in AI Young People's Survey, May 2026**

SECTION ONE

Teens in AI

The Problem:
AI Readiness is being addressed too late

UNESCO warns that rapid technological developments in AI have already outpaced policy and regulatory frameworks in education.

The World Economic Forum projects that 39% of workers' core skills will change by 2030. Without earlier and more inclusive intervention, the AI readiness gap is likely to widen.

In the UK, the picture is similarly uneven. The Government has made significant investments in AI infrastructure - including **AI Growth Zones**, the **Isambard-AI supercomputer** and the **Sovereign AI fund** - but the pipeline of young people being prepared to fill those roles and shape those systems has not received the same strategic attention.

In England, **the Department for Education's (DfE) Technology in Schools Survey 2024 to 2025 found that 44% of teachers already report using generative AI for school activities, most commonly for lesson planning and administrative support**. Yet schools are still navigating how AI should be introduced safely, effectively and consistently.

1

44%

of teachers in England use generative AI for school activities

2

39%

of workers' core skills expected to change by 2030

3

35%

of secondary school teachers have received generative AI training

Sources:
Department of Education Technology in Schools Survey 2024–2025; World Economic Forum Future of Jobs 2025

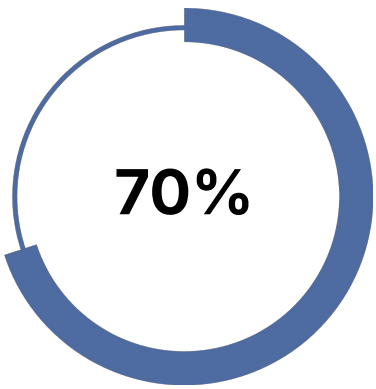
SECTION TWO

Teens in AI

What young people are telling us

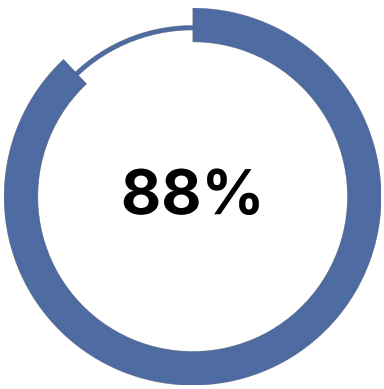
In the survey, young people were asked directly about their AI use, confidence, school experience and aspirations. The findings are directional, drawn from an engaged cohort, and they are striking.

Young people are already deeply embedded in AI. Usage is not a future question, it is already a daily reality. The gap is not between young people and AI. It is between young people and the structures that should be helping them engage with it well.



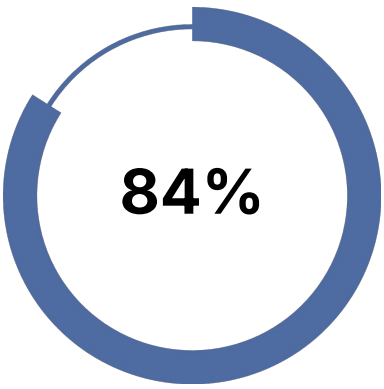
Daily AI Use

Use AI tools every day



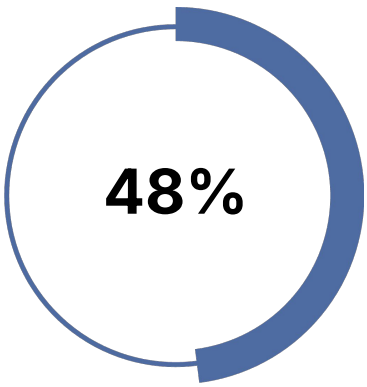
Confident Users

Feel confident using AI tools



Can Explain AI

Feel confident explaining how AI works



Not Prepared

Say school is NOT preparing them

Source:

Teens in AI Survey, May 2026

SECTION TWO

Teens in AI

Aspirations and what would help

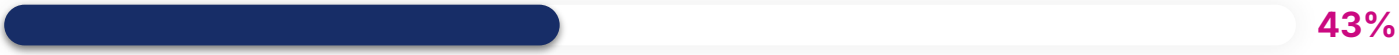
On aspirations, the data is overwhelmingly positive: **73%** said 'yes, definitely' they can imagine themselves in a future role that uses AI, and a further **21%** said 'maybe'. This is not a generation held back by lack of ambition or interest. It is a generation that sees the opportunity clearly, and is not being given the structured pathways to reach it.

When asked what would help them feel more prepared, the top responses were:

56%

Hands-on Projects

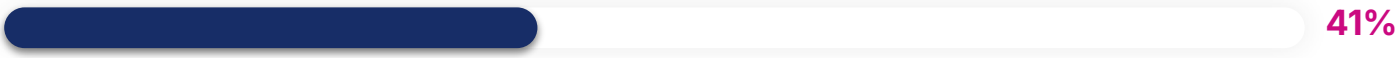
More practical, project-based learning experiences



43%

Real-Life Guidance

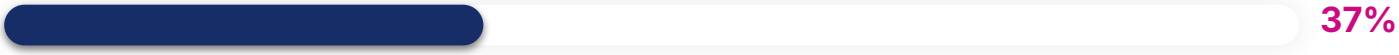
More guidance on how AI is used in real life



41%

Tools & Resources

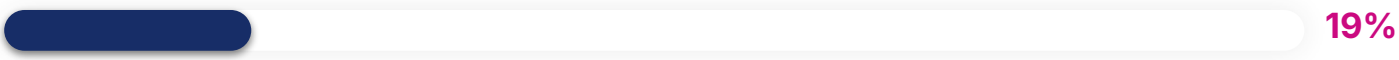
More access to tools and resources



37%

School Teaching

More teaching in school



19%

Role Models

More role models and career insight

Source:

Teens in AI Survey, May 2026

SECTION TWO

Aspirations and what would help

These responses closely mirror what Teens in AI has seen through its global hackathons, AI-for-Good challenges and mentoring programmes:

Young people are most engaged when AI is made practical, purposeful and connected to real-world problems. Hackathons are not an add-on. They are one of the clearest ways to turn abstract AI literacy into confidence, collaboration and aspiration.

These are not abstract wishes. They are a direct specification of what good AI readiness provision should look like - and they map closely onto what the evidence from **UNESCO**, **OECD** and the **Stanford AI Index** also recommends.

Respondents were aged between 12 and 20 and represented a wide-ranging demographic. Of those surveyed, 58% were female, 34% attended State schools, 28% were in Sixth Form or college, 29% independent/privately schooled, 3% were home-schooled, and 6% preferred not to say. The findings from this engaged group are a meaningful signal - especially given that even those most actively interested in AI feel let down by formal education.

> ***We don't want to be replaced in our entry careers, and we don't want to be dependent on it for learning. We want to work WITH it, not FOR it.***
>
> **— Survey respondent, Teens in AI Young People's Survey, May 2026**

SECTION THREE

Teens in AI

Why fragmented responses fall short

Current responses to AI readiness are often fragmented. Schools are being asked to prepare students for a rapidly evolving future without sufficient time, training or practical support. Industry speaks about the need for future talent but too often engages only at the point of recruitment - long after confidence gaps and inequalities of access have already taken root. Government can set direction, but without strong delivery models and cross-sector collaboration, policy ambition alone does not translate into meaningful opportunity.

The result is a gap between national AI ambition and the everyday experience of young people in classrooms, online learning environments and early career decision-making.

This fragmentation creates three compounding problems:

Schools Without Consistent Support

Evidence from **DfE**, **Jisc** and **teacher surveys** suggests that many schools are still navigating AI implementation without consistent guidance, policy clarity or sufficient teacher support. The burden falls on individual educators to interpret a rapidly changing landscape alone.

Industry Engaging Too Late

Employers talk about skills shortages while remaining passive upstream, despite the **World Economic Forum** projecting 39% of workers' core skills will change by 2030. Engagement at recruitment is too late to close confidence gaps or address inequalities of access.

Uneven Access by Postcode

Access to quality AI education is shaped by geography and school capacity, not by a coherent national pathway. Young people in underserved communities face a double disadvantage: less infrastructure investment and less educational preparation to access it.

Access is shaped by geography and school capacity, not a coherent pathway, creating a gap between national AI ambition and young people's everyday experience.

SECTION FOUR

Teens in AI

The Policy Moment: Why 2026 matters

Five AI Growth Zones have been designated across Great Britain, in the North East of England, Oxfordshire, North Lanarkshire, North Wales and South Wales. Taken together, Government announcements indicate they could unlock tens of billions of pounds in private investment.

These zones have been deliberately placed in de-industrialised regions: Communities that have historically faced economic disadvantage and that stand to benefit most from homegrown AI opportunity. The question is whether the young people growing up in those communities are being prepared to access those opportunities - or whether the benefits risk being distributed unevenly.

North East England

£10bn QTS/Blackstone data centre commitment; up to 5,000 high quality jobs

Oxfordshire

Science and technology corridor; deep research and innovation ecosystem

North Lanarkshire

Scottish industrial heartland; digital transformation opportunity

North Wales

Cross-border digital economy; emerging tech infrastructure

South Wales

Post-industrial regeneration; AI-enabled economic renewal

The North East: What the pipeline question looks like in practice

At the second meeting of the North East AI Growth Zone Taskforce on 12 May 2026, the government announced that QTS/Blackstone has committed **£10 billion** to build a new data centre in the region with the potential to support up to 5,000 high quality jobs. A **£750,000 investment** by North East Mayor Kim McGuinness in the Government's TechFirst programme will give 30,000 primary school children early AI and digital skills, alongside a commitment to train 1,000 teachers and create 150 work placements.

> **For the first time, a regional target has been agreed: 80,000 local students to benefit from AI training by 2029. These are meaningful commitments. The next opportunity is to ensure equivalent continuity for secondary-age young people: the cohort that will be entering further education, higher education and the workforce as Growth Zone jobs and AI-enabled roles mature.**

SECTION FOUR

Teens in AI

The Sovereign AI Fund & Government Agenda

Sovereign AI Fund

Launched in early 2026, Sovereign AI offers Government-backed equity investment of up to **£10 million per company**, supercomputing access and fast-tracked talent visas.

Its stated ambition: for the UK to be "not just an AI taker but an AI maker". That promise can only be kept if the generation being educated now is being prepared to be the **builders**, rather than only users of what comes next.

Policy Landscape in Motion

- **Department for Education and i.AI** collaborating to bring AI into classrooms
- **Skills in the Age of AI Report 2025** (Lord Clement-Jones & Lord Holmes) found stark disconnect between Government ambitions and lived experience
- **AI Skills for Life and Work Report** highlights importance of building AI literacy earlier
- **AI Skills Boost Programme** targets 10 million workers trained by 2030
- **Dame Wendy Hall's 2017 review warned of AI skills shortages**, many challenges remain unresolved

The policy landscape is beginning to move. The government has invested in AI tools to reduce teacher workload, and the Department for Education and i.AI are collaborating to bring AI into classrooms. The **Skills in the Age of AI Report 2025**, led by Lord Tim Clement-Jones and Lord Chris Holmes, concluded that a stark disconnect exists between Government skills ambitions and the lived experience of young people, businesses and communities navigating AI adoption.

The UK Government's Department for Science, Innovation and Technology (DSIT), in its AI Skills for Life and Work Report, highlights the importance of building AI literacy and confidence earlier in education, including at primary and secondary school level. The Government's AI Skills Boost Programme focuses more heavily on workforce upskilling and adult readiness, including a target to help train 10 million workers by 2030.

SECTION FOUR

Teens in AI

The Sovereign AI Fund & Government Agenda

Yet many of these concerns are not new. Dame Wendy Hall's 2017 Government-commissioned review, **Growing the Artificial Intelligence Industry in the UK**, warned of AI skills shortages, diversity gaps and the need to strengthen the education pipeline nearly a decade ago. Many of the underlying education and inclusion challenges remain unresolved.

The **Education for All Bill and the response to the Milburn Review** will shape what follows. The infrastructure investment is real. The education pipeline is not keeping pace.

This pipeline question is especially important as the Government reforms post-16 education. T Levels, apprenticeships, Technical Excellence Colleges and the new V Levels can all play a role in widening routes into AI-enabled sectors. But these pathways will only work if young people understand them early enough, see their relevance, and are supported to access industry-linked learning before choices narrow.

> ***The findings in this paper reinforce what Lord Holmes' and my Skills in the Age of AI report made clear: ambition and delivery on AI education are not yet aligned, and the young people who stand to lose most from that gap are those already least well served. AI literacy and practical skills must be embedded in the curriculum well before young people enter the workforce - not left to the goodwill of individual schools or the reach of voluntary industry programmes. Organisations like Teens in AI are demonstrating at real scale what inclusive AI readiness can look like.***
>
> ***The question for Government is whether the infrastructure investment being made in AI Growth Zones will be matched by the education investment needed to ensure local young people are the beneficiaries, not the bystanders.***
>
> **— Lord Clement-Jones CBE**

SECTION FIVE

Teens in AI

What young people need to be AI-ready

Preparing young people for an AI future does not mean turning every student into an AI engineer. It means giving them the knowledge, skills and confidence to understand how AI is shaping the world around them, to use it thoughtfully, and to participate in the opportunities and decisions that follow.

Responsible AI Readiness: The ability to use AI confidently, question it critically, understand its risks, and see credible routes into further learning, work and civic participation. **UNESCO's AI Competency Framework for Students** reinforces this view: competencies should cover human-centred mindset, ethics, applications and systems, not narrow technical exposure alone.

Foundational AI Literacy

Clear, age-appropriate understanding of what AI is, where it appears in daily life, and why it matters - built early, not at the point of employment.

Critical Thinking & Ethics

The ability to question outputs, recognise bias, understand risk and think about consequences - integrated from the start, not added as an afterthought.

Practical, Project-Based Experience

Hands-on challenges, including hackathons, that turn abstract concepts into confidence and real-world application. Named by 56% of young people surveyed as what would help most.

Exposure to Careers & Pathways

Clear visibility of AI-related careers and pathways, including apprenticeships, T Levels, V Levels, technical colleges, work placements, higher education and employer-backed routes. These opportunities remain inaccessible or unclear for too many young people.

Inclusive Design

Learning environments where participation is widened deliberately. Gender gaps in digital access, confidence and participation continue to shape who benefits from new technologies.

Teacher Support

Equipping teachers to guide students confidently without requiring AI expertise. This includes CPD, classroom-ready resources, responsible-use guidance, assessment support, and direct student access to learning while teacher confidence develops.

Sources:

UNESCO's AI Competency Framework for Students and Teens in AI methodology

SECTION SIX

Teens in AI

The Role of Schools, Industry and Government

AI readiness cannot be delivered by any one sector alone. The OECD's career readiness work frames preparation for future working life as shared work across governments, schools, employers and other stakeholders.

Schools

Build the foundation. Develop baseline understanding, confidence, responsible use and critical judgement early enough to matter. Support teachers to guide students with CPD, classroom resources and responsible AI frameworks, rather than leaving them to interpret AI alone.

Industry

Provide relevance, visibility and pathways. Begin engagement upstream through mentoring, challenge briefs, hackathons, role models, work placements, apprenticeships and post-16 technical routes, not only at the point of recruitment.

Government

Enable scale, equity and coherence. Set direction, fund pilots, support teacher development, protect post-16 technical pathways, and use an equity lens so access is not determined by postcode.

AI readiness is best understood as a shared infrastructure challenge requiring coordinated action, not parallel effort.

What Good Looks Like in Practice:

1. **Structured, not ad hoc**
A sequence that moves from awareness to understanding to application and reflection.

2. **Practical and project-based**
Challenges rooted in real-world problems, not passive exposure.

3. **Ethics Integrated from the start**
Teaching young people not just what AI can do, but how to question it.

4. **Inclusive by design**
Deliberately widening participation rather than reinforcing existing advantage.

5. **Connected to careers**
Making pathways visible, especially for underrepresented groups.

6. **Strong enough to scale**
Practical, measurable and partnership-friendly.

A typical Teens in AI pathway combines AI literacy modules, ethics discussions, project-based learning, mentoring from industry volunteers and a hackathon or challenge focused on real-world problems. This creates both technical confidence and critical understanding, while exposing young people to pathways and role models they may not otherwise encounter.

SECTION SIX

Partnership in Practice: Sage and Teens in AI

Since 2021, Teens in AI has partnered with Sage, a global leader in accounting, financial, HR and payroll technology headquartered in the North East of England. Through the partnership, Sage colleagues have supported Teens in AI programmes as mentors, speakers, judges and contributors to course and challenge development across multiple countries and languages.

This matters because industry involvement is most powerful when it is not confined to recruitment. Through mentoring, judging, challenge design and role modelling, employees can help young people understand how AI is used in real organisations and why responsible innovation matters.

In May 2026, Sage was named in an official government press release as a partner in the North East AI Growth Zone skills agenda: working to support women in the region to develop AI leadership skills, and joining Accenture and other businesses in a cross-sector commitment to widen access to tech careers.

16,000+

Young People Reached

so far through the Sage partnership globally

186

Expert Volunteers

engaged across programmes and challenges so far

1,143

Volunteer Hours

contributed by Sage colleagues so far

> ***Our work with Teens in AI in the North East reflects a simple belief: opportunity in AI should start in the classroom, not at the point of recruitment. Through the Sage Foundation and our long-term commitment to the region, we're investing in young people so they have the confidence and skills not just to enter the AI future, but to help shape it.***
>
> **— Aaron Harris, Chief Technology Officer**
>
> Sage

This illustrates how sustained industry partnership can evolve from programme-level volunteering into wider regional action: connecting early exposure, skills development and future talent pathways.

Teens in AI

A shared Agenda for Action

Policy recommendations

The Government has demonstrated in the North East that it can connect infrastructure investment to education commitment when the political will exists. The recommendation is to apply that same logic nationally - across all five Growth Zones, and beyond them.

Every region where AI investment is being directed deserves an equivalent skills pipeline. That pipeline should run from early AI literacy and responsible use, through secondary-age project-based learning, into post-16 technical pathways, apprenticeships, placements and employment.

01

Match Every AI Growth Zone with a Youth AI Readiness Commitment

Every major AI infrastructure investment should be matched by a funded education and skills pipeline, with measurable commitments for schools, teachers and young people, including secondary-age provision, teacher training, project-based learning, youth voice and links into post-16 technical and vocational routes.

02

Establish a National Secondary-Age AI Readiness Programme

The Government should support a structured programme for ages 11–18 focused on AI literacy, responsible use, ethics, critical thinking, practical application and future pathways, connecting primary initiatives such as TechFirst with post-16 routes including T Levels, V Levels, apprenticeships and employer-led placements.

03

Fund Teacher CPD and Responsible AI Support

Teachers should be equipped with CPD, classroom-ready resources, assessment guidance and responsible-use frameworks covering ethics, bias, reliability, safeguarding, academic integrity and critical thinking.

04

Scale Project-Based AI Learning

Schools, industry and Government should fund and scale challenge-based learning, including hackathons, AI-for-good projects, mentoring, guided online learning and industry challenge briefs. Young people are asking for practical experiences that connect AI to real problems, careers and community impact.

A shared Agenda for Action

Policy recommendations

05

Bring Industry into the Talent Pipeline Earlier

Employers should engage before recruitment through mentoring, role models, challenge briefs, volunteering, work placements, apprenticeships and technical education pathways. A broader, deeper talent pipeline is a strategic investment in the workforce that will run the infrastructure being built today.

06

Fund Proven Delivery Models

The Government should invest in organisations with demonstrated track records of inclusive AI education delivery, rather than only commissioning new programmes from scratch. Proof of scale, diversity of reach and sustained impact should count as evidence of what works.

07

Build Equity and Youth Voice into AI Skills Policy

Publicly funded AI education and skills initiatives should measure participation and progression by gender, school type, geography and socioeconomic background, while giving young people a formal voice in programme and policy design.

AI readiness is not only an education challenge. It is a long-term economic competitiveness and inclusion priority - and it is already overdue. The UK's ability to benefit from AI infrastructure investment depends on whether young people are prepared now to understand, use, question and build with AI. The evidence for what works exists. What is needed now is the will to act on it at scale.

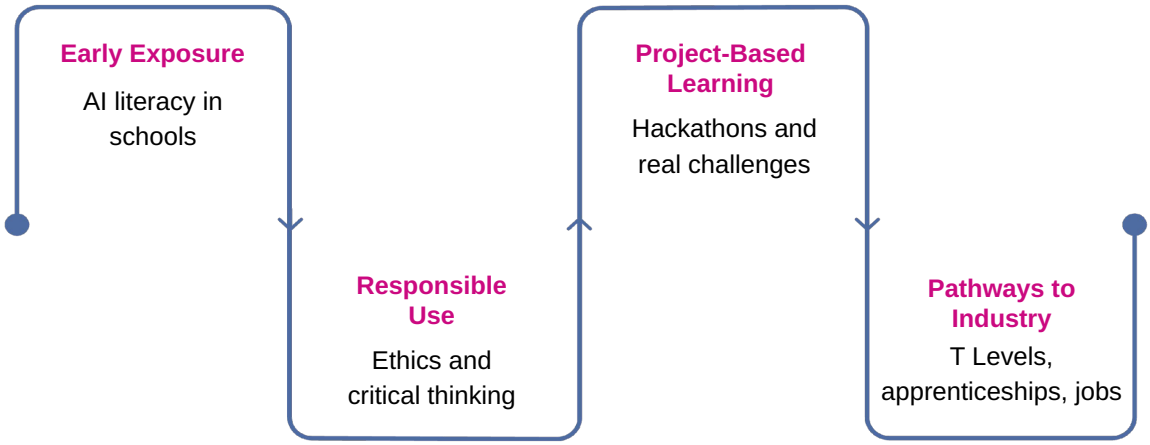
> ***Teens often see AI not as something to fear, but as a powerful, everyday tool that can help them learn, create and solve problems, if adults trust them enough to explore it responsibly.***
>
> **— Survey respondent, Teens in AI Young People's Survey, May 2026**

SECTION EIGHT

Teens in AI

Closing the gap before it widens

The AI readiness gap does not begin at the point of hiring. Nor does it end with a single lesson, platform or policy announcement. It begins much earlier - in who gets exposed, who is encouraged, who builds confidence, and who learns to question the systems shaping their future. It requires a coherent pathway from early exposure to responsible use, from classroom confidence to project-based learning, and from school into further education, technical training and industry.



This pathway represents the joined-up logic that must connect every stage of a young person's journey, from first encounter with AI to meaningful participation in the AI economy. The evidence for this is no longer only external. It is coming from young people themselves. A generation that uses AI every day, that aspires to careers in AI, that understands the stakes - and that is asking, clearly, for schools, industry and government to take their preparation seriously.

The Opportunity

The UK has made significant commitments to becoming an AI maker: AI Growth Zones, Sovereign AI, supercomputing infrastructure, a legislative programme focused on innovation. These are real investments. But they will only deliver their full potential if the people who will work with, build and oversee AI systems are being prepared, now, in schools, with the support of industry and the direction of Government.

The Conclusion

Teens in AI has spent eight years making the case that young people are not the problem. They are the solution, if given the tools, the context and the trust to engage. That means treating young people's AI readiness as part of the **UK's national AI infrastructure**, not as an optional education add-on.

The question is not whether AI will shape young people's futures. It already is. The only question left is whether we choose to prepare them for it.

ABOUT

About Teens in AI

Teens in AI was founded in 2018 with a simple conviction:
Young people should be builders of AI, not just its subjects.

40,000+	59%	61%
Young people reached across 102 countries	Girls and non-binary participants	State-schooled participants

Its model combines hackathons, AI-for-good challenges, mentoring, industry partnerships, responsible AI education and career inspiration. Through **AI Adventures**, Teens in AI provides direct student learning, teacher CPD and practical tools such as its AI Readiness Self-Assessment Kit.

This paper reflects eight years of delivery: Readiness starts early, responsible AI must be taught from the beginning, and the infrastructure to close the gap already exists.

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Key Sources

- UNESCO AI Competency Framework for Students
- World Economic Forum Future of Jobs Report 2025
- DfE – Technology in Schools Survey 2024 to 2025
- DfE – Generative AI in Education Guidance
- Jisc – Student Perceptions of AI 2025
- National Literacy Trust – Teachers' Use of AI 2025
- Skills in the Age of AI Report 2025
- AI Skills for Life and Work Report 2026
- AI Skills Boost Programme 2026
- Growing the Artificial Intelligence Industry in the UK 2017
- AI Readiness Self-Assessment Kit
- Stanford University AI Index Report 2026
- **Teens in AI's AI Adventures Learning Platform**

Methodology note:
Findings are drawn from a May 2026 Teens in AI survey of young people aged 12–20. Responses are directional rather than nationally representative.