Bridging Gaps - Article

AI in Education: A Critical Moment for Inclusion

AI in education has never been more widely discussed than it is today. And during last month's BETT expo, the Secretary of State's keynote address[1] made this very clear: AI is no longer a distant possibility, it is already transforming classrooms, raising urgent questions about adoption, equity, and impact.

Unlike some of the more glacial conversations in education, the pace of development around AI can sometimes feel overwhelming. Nestled within this deluge are multiple risks, including the fact that much of the debate remains centred on mainstream education, with SEND learners, assistive technology users, and accessibility too often left out[2]. While AI is frequently framed as a disruptive force in teaching and assessment, its greatest potential impact may be in empowering learners with additional needs, but only if we design it with inclusion in mind.

At techUK, we have been working across our Education & EdTech Programme and Digital Ethics Programme to explore these issues. Our event, held during BETT week, was the culmination of that work, bringing together a diverse community of those passionate about AI Ethic and education, to examine the technology's role in SEND education.

Across the various discussions and presentations, one systemic challenge was made crystal clear: AI's implementation in education risks remaining inequitable. If we fail to embed accessibility and inclusion into AI development, we risk widening existing gaps rather than closing them.

This article captures the key takeaways from our discussion, alongside insights from leading reports and organisations shaping AI in education. Our aim is to connect the dots between AI, ethics, SEND, accessibility, and policy gaps, highlighting where AI's promise is strongest and where action is most urgently needed.

AI Adoption Is Moving Fast, but Unevenly

AI's role in education is growing rapidly, but adoption remains fragmented. Across schools and colleges, AI tools are being introduced in isolation, often led by individual teachers rather than as part of a coherent, system-wide strategy. There is no clear framework for best practice, leaving educators uncertain about regulation, data protection, and ethical use.

At the same time, government strategy is still evolving. The UK Government's AI Opportunities Plan[3] lays out ambitions for AI in public services, but implementation in education is yet

unclear. While AI is often discussed in terms of efficiency and innovation, there is an urgent need to address inclusion, accessibility, and infrastructure or risk widening the digital divide.

techUK's discussion was a prelude to work seeking to tackle the numerous challenges affecting schools, colleges, and SEND learners, including:

- Ethical AI adoption—ensuring AI is developed and used responsibly in education.
- SEND and assistive technology—ensuring AI is designed for accessibility rather than retrofitted as an afterthought.
- Infrastructure challenges—supporting schools in navigating the disjointed patchwork of technology and funding that limits AI adoption.

These challenges are echoed in reports from key organisations working on AI in education:

- The Ada Lovelace Institute's AI in Education Review[4] has raised concerns about AI bias, ethical design, and the lack of SEND inclusion in AI policy.
- The Digital Poverty Alliance's 'Rethinking Education with Generative AI'[5] report highlights how AI could widen the digital divide if access, devices, and training are not prioritised.
- The British Assistive Technology Association's work on AI and assistive technology[6] emphasises the need to embed accessibility from the start, rather than treating it as an add-on.
- The outcomes of the AI in Education SEND Hackathon[7] demonstrated AI's potential for personalised support, but also the need for co-design with SEND professionals.

Right now, AI in education is being shaped by individual initiatives as we build to a cohesive strategy. If we want to ensure AI benefits all learners, particularly those in SEND and accessibility contexts, it must remain a central part of the policy and infrastructure conversation.

AI and the Risk of Widening Educational Inequality

AI has the potential to bridge gaps in education, but without targeted action, it could also exacerbate existing inequalities. Access to AI tools, digital infrastructure, and teacher training varies significantly between schools, leaving disadvantaged students at risk of falling further behind.

The Digital Poverty Alliance research highlights the stark disparities in access to technology:

- 75% of teachers in the wealthiest schools report having enough devices for most pupils, compared to just 25% in the most disadvantaged schools.
- Only 2% of teachers in disadvantaged schools say their students have adequate access to devices and connectivity to complete homework at home.

At a time when AI is reshaping education, ensuring equitable access to these tools must be a priority. Without intervention, AI will disproportionately benefit well-resourced schools while leaving others behind. This challenge was most appropriately advanced during our discussion as:

> *"Too many education initiatives raise the bar. Let's also talk about closing the gap."*

AI's Role & Ethics in Assistive Technology and SEND

There was strong consensus that AI presents a yet unobtainable opportunity to personalise learning and enhance accessibility for students with special educational needs and disabilities (SEND). The discussion emphasised that AI should be viewed as a tool for empowerment, not as a replacement for human support.

> *"Assistive technology has been helping for some time, but AI is advancing rapidly, offering new opportunities for tailored, bespoke support in education."*

A prominent theme was the need for a shift from a medical model to universal design, ensuring that AI-powered tools are not seen as 'special accommodations' but as integrated classroom resources that benefit all learners.

> *"Take assistive technology out of the medical model and into the mainstream classroom, so a child reaches for it like they would a pen, a pencil, or a piece of paper."*

AI-driven assistive technologies are however already making a difference:

- Text-to-speech and speech-to-text AI help students with dyslexia and ADHD engage with complex material more effectively.
- Adaptive AI tutoring can adjust to the pace and learning style of neurodiverse students.
- AI-powered accessibility tools like gesture and eye-tracking technology are enabling greater independence for students with physical disabilities.

However, there was strong agreement that co-production within the development of AI EdTech solutions is essential. AI solutions for SEND must be designed with educators, SEND specialists, and students themselves, rather than imposed without input. Additionally, AI systems are only as good as the data they are trained on. Many AI learning models are developed using mainstream educational data, meaning they may fail to recognise the needs and learning patterns of SEND students. This raises major concerns about AI-driven learning platforms unintentionally excluding the very learners they claim to help.

> *"AI should be trained on data from the margins, not just the mainstream. Otherwise, we're only seeing the hole in the doughnut, not the edges."*

Another major concern highlighted in the discussion on ethics was the lack of clarity around how AI tools make decisions i.e. the black box problem. This opens particular challenges within assessment, personalised learning recommendations, or grading systems. This opacity makes it difficult for teachers and students to understand why an AI model suggests one learning path over another or assigns a particular score. Without transparency, AI risks undermining trust in education technology and this challenge is particularly pronounced for SEND learners, where the value of personalisation may quickly be lost.

> *"Transparency and trust are crucial. We don't want AI to be a black box where teachers put something in and have no idea what comes out."*

Student Autonomy, Motivation and Outcomes

AI-powered tools have the potential to boost engagement, particularly for students who struggle with traditional learning formats. However, it was questioned by our participants whether AI-driven learning environments truly foster deep learning or just surface-level engagement.

> *"Online learning isn't typically built for many-to-many communication. That's a problem."*

It was clear from our conversations AI-powered learning should centre on the principles of being interactive, participatory, and collaborative, rather than offering a solitary, AI-driven experience. Similarly, while AI offers powerful opportunities for personalised learning, there is a fine line between empowerment and over-reliance. We learnt from our participates that students don't want AI to do everything for them, they want it to build them up to scaffold learning, enabling them to work independently, rather than completing tasks on their behalf. If AI automates too much, it risks removing autonomy from students rather than enhancing it. It was this, perhaps false, dichotomy between assistance and autonomy that repeatedly visited our conversations.

> *"We are still to properly define what is empowering versus what removes autonomy from a student when it comes to AI."*

AI's role in assessment remains one of the most overlooked yet consequential areas of its adoption in education. While much of the discussion on AI in classrooms focuses on lesson planning, content delivery, and automation, its influence on how we measure learning outcomes raises multiple questions.

The introduction of AI into assessment could either reinforce outdated models or open new pathways for more adaptive, personalised evaluation. Yet, there are concerns that current AI-driven assessment tools are being designed to fit within existing systems, rather than reimagining what good assessment should look like.

> *"Do you measure what you value, or do you value what you measure?"*

This is particularly pressing for SEND learners, who often find themselves disadvantaged by rigid, exam-based systems that fail to capture their full learning potential. AI-powered adaptive assessment tools have the potential to:

- Personalise testing by adjusting difficulty and format to suit individual students.
- Provide real-time feedback, helping students learn as they are assessed, rather than simply measuring performance retrospectively.
- Offer alternative assessment formats, such as speech-based, project-based, or multimodal evaluation, which could better support neurodiverse learners.

> *"We need a more sophisticated way of enabling a child to demonstrate what they can do, rather than testing what they can't."*

This shift could create a more equitable and more representative assessment landscape, where students are measured based on their capabilities and growth, rather than their ability to perform under traditional exam conditions.

Teachers and AI: Interest, Hesitation, and the Skills Gap*

It was also roundly agreed that teachers are battling on the frontlines of AI adoption in education, yet there was a strong indication that many feel underprepared and uncertain about how to integrate AI into their classrooms. While some educators have embraced AI tools, uptake remains uneven due to gaps in training, unclear policies, and concerns about educational integrity.

> *"There's loads of uncertainty—how can you write a policy if you don't even know what AI is or how it's going to disrupt?"*

Surveys suggest that a third of teachers are already using AI in some capacity, but the majority remain hesitant. One key reason is a lack of formal training. Teachers often experiment with AI on their own, but without structured guidance, confidence levels vary widely.

> *"Many teachers felt using AI might be perceived as 'cheating'—some even hid their use from senior leadership."*

Similarly, the way that AI is adopted differs across subjects. Teachers of essay-based disciplines (e.g. English and Humanities) have been more inclined to use AI to support student writing, while STEM educators remain more cautious. The uncertainty surrounding AI in schools is not just about pedagogical impact but also about practical implementation. Without teacher training, policy clarity, and clear ethical frameworks, AI adoption will remain haphazard and inconsistent across the education sector.

From Conversation to Action

As our discussion during BETT Week reinforced, without a structured approach to AI in education, we risk widening existing inequalities rather than closing them. Indeed, efforts are already underway to create a more evidence-based, structured, and inclusive approach to AI adoption in schools. Steps are being taken at the policy level with the Department for Education (DfE) having launched several initiatives aimed at strengthening AI literacy, improving evidence on AI's effectiveness, and supporting AI integration in schools, namely:

- The EdTech Evidence Board[8], which was announced earlier this year, is bringing together experts to develop criteria for evaluating AI tools in schools, ensuring that EdTech products are rigorously assessed for their impact and accessibility. The board is made up of education researchers, school leaders, and EdTech experts, providing a balanced perspective on what works.
- The Chiltern Learning Trust's work[9] leading the development of government-backed AI training for teachers, covering key areas such as:
  - Understanding generative AI and how it works.
  - Evaluating AI tools for accuracy, bias, and ethical considerations.
  - Practical applications of AI in the classroom, including SEND and assistive technology use cases.
  - Safeguarding, academic integrity, and the risks of AI misuse in education.
  - Leadership training to help school leaders integrate AI into school-wide digital strategies.

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1. https://www.gov.uk/government/speeches/education-secretary-gives-bett-show-2025-keynote-address ↵
2. https://er.educause.edu/articles/2024/9/the-impact-of-ai-in-advancing-accessibility-for-learners-with-disabilities? ↵
3. https://www.gov.uk/government/publications/ai-opportunities-action-plan/ai-opportunities-action-plan ↵
4. https://www.adalovelaceinstitute.org/report/a-learning-curve/ ↵
5. https://digitalpovertyalliance.org/news-updates/dpa-releases-ai-report/ ↵
6. https://www.bataonline.org/blog/a-new-era-of-accessibility-the-role-of-ai-in-assistive-technology ↵
7. https://www.ai-in-education.co.uk/resources/ai-in-education-send-hackathon ↵
8. https://www.tes.com/magazine/news/general/revealed-advisers-dfe-edtech-evidence-board ↵
9. https://www.tes.com/magazine/analysis/general/what-new-ai-teacher-training-courses-will-cover ↵