“AI in Education”: Evidence submission to Education Committee from the Southampton Education School.

ABOUT THE AUTHORS

Southampton Education School submits evidence to the Education Committee of the UK Parliament with regards AI in Education (AIED, April 2026).

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The Southampton Education School at the University of Southampton is uniquely positioned to advise the government on AI in education due to its combination of top-tier educational research, interdisciplinary AI leadership, and a long-standing history of direct policy engagement.

The school is consistently recognized as a premier institution for education in the UK. It is currently ranked 5th in the UK for Education by The Complete University Guide 2026. According to the Research Excellence Framework (REF) 2021, 82% of its research publications are rated as world-leading or internationally excellent. Its research has a decade-long track record of being in the Guardian’s top 10, specifically noted for driving national education policy and practice.

Unlike isolated education departments, the school operates within a university-wide AI powerhouse that integrates technical expertise with social science. This includes AI@Southampton and the Web Science Institute.

The coordinating author of this submission (McIntyre) holds central involvement as the AI Champion for the Social Sciences in AI@Southampton. She also holds EPSRC funding from the Responsible AI UK Consortium (RAi UK; Southampton leads this £31 million national programme dedicated to creating trustworthy and secure AI that benefits society).

Contributing authors of this evidence submission bring AIED expertise demonstrated by UKRI Future Leaders funding (Lewthwaite), co-directorship of the school’s Centre for Research in Inclusion (Lewthwaite, Gupta), ESRC funding for doctoral research in education (Calamelli), and deep involvement with Ofsted Outstanding teacher education (Newman, Perks).

SUMMARY OF THE EVIDENCE

1. AI offers significant opportunities for learning but requires strong pedagogical frameworks.

Generative AI can enhance learning—especially language learning—by providing clear explanations, feedback, and simulated conversation practice, but only when used with structured guidance such as Self-Regulated Learning frameworks. Teachers remain central to ensuring responsible and effective use.

2. Major risks accompany AIED adoption, including over-reliance, bias, privacy concerns, and erosion of teacher expertise.

Students may outsource thinking and writing to AI, while teachers may feel their professional knowledge is being undermined. Wider systemic risks include data privacy issues, biased outputs, inequity, and inconsistent school-level experimentation without clear governance.

3. Risks and impacts differ across educational levels, with higher education facing the greatest challenges.

Because university students work independently with unrestricted access to AI, over-reliance and hidden AI use in assessments is more likely. AI's unpredictability and embedded biases also challenge accessibility standards and equity across the system.

4. AIED is already reshaping teachers' work—improving efficiency but also raising concerns about quality, identity, and workload.

AI helps with administrative tasks, resource creation, and planning, freeing time for student interaction. However, teachers express concerns about accuracy, ownership of co-created materials, and whether AI actually reduces workload. Most educators also want more training and support.

5. Children's digital rights, accessibility, and inclusion require far stronger protection and co-design.

Unregulated AI tools pose risks such as exposure to inappropriate content, grooming, and psychological harm. Disabled children's needs are not adequately represented in current AI development or legislation, and biased datasets can reinforce exclusion.

1. CHALLENGES AND OPPORTUNITIES

1.1. How the opportunities from AI can be used to enhance learning outcomes.

Generative AI (GenAI) can enhance learning, particularly in language education, but its benefits depend on clear pedagogical conditions. GenAI tools provide accessible explanations, follow-up support, and help with complex ideas, often acting like a 24/7 tutor. However, this convenience can encourage over-reliance, limiting students' development of deeper analytical and synthesis skills.

Language learning is a key area of opportunity. With declining participation in language study in England, AI-powered tools—such as conversational chatbots—can offer more frequent practice, build confidence, give immediate feedback, and simulate real-life interactions that schools may struggle to provide. These advantages can support national goals around communication skills, cultural understanding, and economic competitiveness.

GenAI's impact varies by learner, subject, and setting, meaning it cannot be treated as a universal solution. It is most effective when integrated into structured teaching frameworks that promote Self-Regulated Learning. Many students, especially in secondary settings, need explicit support to use AI tools responsibly and independently.

Teachers remain essential to effective implementation. When teachers guide how and when AI is used, learning outcomes improve. This requires sustained professional development so educators understand GenAI's strengths and limitations and can help students engage critically, ethically, and safely. AI may also broaden access for students with additional needs and reduce routine workload.

1.2. The greatest risks in AIED use within the education system.

Major risks accompany the rapid adoption of AI in education, affecting both students and teachers. A key concern is that students may outsource substantial parts of their thinking and writing to tools such as ChatGPT. While many use AI to check ideas or improve writing, there is little robust evidence on how this is changing learning behaviours. Universities lack high-quality research on the scale and impact of AI use, making it difficult to assess academic integrity risks. Some students may breach rules unintentionally, while others may become overly dependent on AI.

Teachers face parallel challenges. Early evidence from local schools shows that while AI can speed up lesson planning, marking, and resource creation, some educators feel their expertise is being devalued. In the absence of clear guidance, schools are experimenting independently, leading to inconsistent and sometimes ethically uncertain practices.

There are also wider systemic risks. AI tools depend on extensive user data, raising privacy and security concerns, particularly for children. Biased training data can reinforce inequalities, and vague or inaccurate AI feedback may weaken students' independent thinking. Learners with stronger digital skills are better positioned to benefit, risking the deepening of existing inequities.

Stronger governance, teacher training, ethical guidance, and digital-literacy programmes are essential to ensure fair and responsible use of AI in education.

1.3. How the risks from AIED vary across educational levels.

The risks associated with AI in education differ across phases, with the greatest concerns in higher education. In schools, close supervision and in-person exams limit opportunities for students to rely heavily on AI, keeping assessment systems comparatively robust. In higher education, however, students work with far greater independence and unrestricted access to AI tools. This increases the likelihood that they will use AI throughout their reading and writing processes, making it harder to determine how much of a submitted assignment reflects their own work. Although plagiarism cases have declined, consistent assignment quality suggests students may now be replacing paraphrasing with AI-generated text.

AI systems also carry structural risks. Because they are trained on datasets that do not represent all groups, they can reproduce and amplify existing inequalities. Addressing this requires national-level reform, including updated standards and a stronger focus on digital accessibility across relevant disciplines. AI's non-deterministic outputs pose an additional challenge: current accessibility standards rely on predictable behaviour, meaning regulation must adapt to ensure AI-based educational tools are genuinely accessible for disabled learners.

Finally, while AI can streamline processes, it may reduce opportunities for thoughtful, human-centred teaching. Teacher expertise and inclusive practice remain essential, and policy must ensure that efficiency does not come at the expense of equitable learning.

1.6. The current safeguarding already in place for AIED -- and how issues can be resolved, if any.

It is widely known by university students that use of GenAI could constitute an ARC breach if identified. This is the only substantial safeguard in place (against the risks of outsourcing of thinking and skill development, and award of respected qualifications e.g. university degrees, to students who have not met the stated learning objectives). There is a certain amount of education being provided,

but this is mostly optional access for students, and students may choose not to buy in to this, just as a substantial number of students choose not to buy into the importance of physical attendance for taught sessions.

2. IMPACT ON TEACHING

2.1. How AIED is affecting educators' daily practice, work, and workload.

We can report from our own pilot study exploring how school teachers in one city are using Generative AI (GenAI) in their everyday work and how this may be influencing their professional identity. The results show extremely widespread use: 98% of teachers reported using AI tools in some part of their practice.

Teachers are using AI for a wide range of tasks. Over half use it for administrative work such as emails, reports, and data analysis. Many also use it to create or adapt lesson materials, with 60% generating resources and 40% modifying them for classroom use. Others use AI to draft questions, support marking and feedback, or help with lesson planning.

These uses suggest that AI can make teachers' work more efficient, reducing the time spent on routine, bureaucratic tasks. Some teachers say this frees them to focus more on direct interaction with students and on the human elements of teaching. They also report that AI can offer creative ideas, helping to enrich lesson content and improve student engagement.

However, the findings also highlight concerns. Some teachers worry that AI-generated lesson content may contain errors or lack reliability. They fear this could undermine the intellectual quality of lessons or weaken trust in teacher expertise. A more complex issue is that some teachers are beginning to co-author materials with AI, treating it almost like a collaborative teaching partner. This raises questions about who owns the intellectual work produced and how essential teacher knowledge remains in the process.

Finally, while GenAI is often described as a time-saving tool, some educators feel that using it actually adds extra responsibilities and does not reduce workload overall. This is especially true for subjects that rely heavily on hands-on skills, human judgement, or artistic practice, where AI tools may be less helpful or even inappropriate.

Newman, R. (in press). Autonomy and Agency in the Age of Algorithms: How is AI shaping professional knowledge, identity and practice? Impact. Chartered College.

2.3. The support available to educators as they navigate, integrate, and make use of AIED.

Jisc offer an important service for EdTech advice, procurement and knowledge exchange in this area, providing training and supporting expert communities of practice. Government funding should support and enhance this work, to ensure professional community understanding and pedagogical culture can grow and respond to a fast-changing technological environment.

Targeted educator support must include: critical evaluation of AI tools; understanding of bias; awareness of disabled learners' and disabled teachers' specific needs; guidance on procurement of responsible and accessible AI.

2.4. AIED's impact on assessment methods, including coursework.

GenAI has so far had remarkably little impact on assessment methods in SEdS. There has been a small amount of innovative work building GenAI use into assessments by a few tutors who are highly engaged and willing to experiment. Mostly, an assumption is being made that the overwhelming majority of students are writing assignments in the way they have done since the writing process was last substantially altered (by word processing, and then by searchable citation indices, particularly Google Scholar) and therefore no substantial changes to assessment are required. There is some frustration from tutors when they feel they are marking GenAI content but the evidence is too limited to consider applying a penalty for a breach of ARC but it is not seen something beyond an isolated problem related to a small number of students and assignments. In terms of marking, it is noticeable that it is no longer possible to easily distinguish the writing of native, and additional language, English speakers but the general assumption is that this is due to the use of improved translation tools to support translation from the L1 that many international students use to draft their assignments.

2.7. The CPD that still needs to be offered to educators, due to AIED.

Educators need strong evidence on how students' writing processes have changed since the rise of ChatGPT. They also need access to an independent team that can generate human–AI collaborative versions of submitted work to reveal how easily assessments can be replicated. Together, these insights would prompt a more realistic reassessment of current approaches to academic integrity.

Many educators still assume LLMs can verify their own processes—for example, by "checking" reference links. In reality, LLMs cannot perform these actions, and confident explanations from the model are often mistaken for genuine verification. Until this misconception is widely understood, more advanced CPD will have limited impact.

Demand for AI training is high: 88% of surveyed teachers want further support. While teachers are using AI across many tasks, most are doing so with little guidance, and benefits are inconsistent. Some teachers actively resist AI because they feel it undermines their professional judgement and expertise. CPD should therefore prioritise strengthening teacher agency and informed decision-making.

Finally, AI tools must be accessible to both staff and students. Their introduction can disrupt established assistive technology practices, so disabled educators' needs must be central to digital inclusion policy and training.

3. IMPACT ON LEARNING

3.1. How AIED shapes learning processes (e.g. critical thinking) and outcomes (inc. skills).

In the Google era, concerns centred on students outsourcing basic knowledge by simply "searching it up." In the GenAI era, the risk is deeper: students may now outsource the higher-order stages of Bloom's taxonomy, as GenAI can perform these tasks faster and often more accurately than non-experts. This leaves "evaluation" as the primary remaining human skill—but expecting students to evaluate without secure foundations in knowledge, understanding, and application is pedagogically unsound. We do not teach comprehension without reading, nor algebra without

arithmetic, simply because tools can perform them. Policymakers should ensure that curricula and assessment reforms do not over-pivot to evaluation at the expense of essential foundational learning.

3.2. How AIED can support the development of critical skills (e.g. problem-solving), and the documentation of this development.

GenAI can support better modelling and scaffolding, but it is more likely to weaken students' critical-thinking skills if relied on too heavily. Previous shifts in literacy teaching show that replacing foundational knowledge and extensive practice with strategy-only approaches leads to shallow learning. The same risk applies here: while strategy instruction has value, its benefits plateau quickly. If GenAI performs the lower-order thinking, students may not develop the essential underpinning knowledge required for genuine critical-skill development.

4. CHILDREN'S DIGITAL RIGHTS

4.1. How to protect children and their rights within AIED.

GenAI safety measures vary widely. While major LLMs include age restrictions, many other GenAI tools remain unregulated and can expose children to harmful content or contact. With unrestricted internet access, children can reach applications that enable manipulation or grooming risks. Children's healthy development relies on diverse learning, social, creative, and physical activities; unchecked GenAI use risks displacing these. GenAI should therefore be available to children only in regulated, supervised environments. Children may also lack the maturity to question AI outputs, reinforcing the need for adult oversight and stronger obligations on technology providers to protect young users.

National Society for the Prevention of Cruelty to Children. January 2025. Viewing Generative AI and children's safety in the round. https://learning.nspcc.org.uk/media/ikxlpzt2/viewing-generative-ai-childrens-safety.pdf"

4.2. How much children's diverse needs and experiences are shaping AIED legislation and guidance.

To date, disabled children's needs are not adequately shaping AI development, legislation, or guidance. No regulatory framework currently requires disability-inclusive co-design at any stage of AI development. Children's rights frameworks should be explicitly applied to AIED procurement and governance in schools. The European Accessibility Act (2025) creates procurement obligations for public sector bodies including schools — this is potentially a lever for improving EdTech accessibility for children in the UK.

AIED has potential to transform support for disabled learners; applications in assistive technology (e.g. assistive and augmentative communication, telepresence robotics, writing and literacy support, live captioning, Seeing AI for blind and partially sighted learners) show how needs can be effectively met to enable disabled children and young people. However, co-design with disabled and Deaf communities remains exceptional; where it occurs, participation is frequently tokenistic (Lewthwaite & Coverdale, 2026).

4.5. The unique and specific needs of marginalised groups such as disabled and/or care-experienced children.

AI systems are commonly trained on datasets that underrepresent disabled people, embedding discriminatory and exclusionary patterns before these tools ever reach classrooms. As a result, AIED can reproduce and amplify existing inequalities, and this cannot be corrected at classroom level alone; it requires upstream reform in AI development, governance, and procurement.

Education policy must ensure that both teachers and students learn to create accessible-by-default digital work, as current digital-inclusion efforts often overlook these systemic gaps.

AI has significant potential to support disabled learners—through assistive communication tools, telepresence robotics, literacy support, live captioning, and vision-assistance technologies—but AI-generated accessibility features (e.g., captions, alt-text, code) remain unreliable. Co-design with disabled and Deaf communities is rare and often tokenistic, meaning disabled children's needs are not shaping AI policy, standards, or product development.

These shortcomings disproportionately affect learners with intellectual disabilities and Deaf young people, for whom AI-mediated tools (e.g., English–BSL translation) frequently fail to capture essential linguistic and cultural features, creating unsafe or unusable outputs. AI solutions must therefore be co-developed with d/Deaf and disabled communities, including children.

GenAI can still play a valuable role—for example, supporting learners with specific learning difficulties, disabilities, or for whom English is an additional language—but only if tools are reliable, accessible, and embedded within inclusive design and regulatory frameworks.

Nalina Brahim-Said, 'AI: Empowering Inclusive Education', National Centre for Artificial Intelligence Jisc, January 2024, https://nationalcentreforai.jiscinvolve.org/wp/2024/01/09/ai-empowering-inclusive-education/.

Yonah Welker, 'Generative AI Holds Great Potential for Those with Disabilities - but It Needs Policy to Shape It', World Economic Forum, November 2023, https://www.weforum.org/agenda/2023/11/generative-ai-holds-potential-disabilities/.

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