

Artificial Intelligence in School Education: Transforming Teaching, Learning, and Assessment

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Abstract

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One of the biggest changes in the history of formal education is the quick integration of Artificial Intelligence (AI) technologies. In this piece, we examine in-depth, empirically supported ways that artificial intelligence is changing K–12 education globally in terms of pedagogy, learning, evaluation, and school administration. The article examines the transformative potential and serious risks of AI adoption in schools, including algorithmic bias, surveillance concerns, teacher displacement fears, and the widening of digital divides. It does this by drawing on peer-reviewed literature, government reports, longitudinal studies, and empirical datasets from UNESCO, OECD, UNICEF, and top research institutions. Intelligent Tutoring Systems (ITS), adaptive learning platforms, automated assessment, and generative AI tools (like ChatGPT and Khanmigo) are among the other AI-enabled tools included in the article. It concludes with a comprehensive set of policy proposals for the fair, moral, and pedagogically sound integration of AI in classrooms.

Keywords: Artificial Intelligence, School education, intelligent tutoring systems, teacher professional development, generative AI, personalised learning, digital divide.

1. Introduction

The ability of computer systems to mimic human cognitive processes including learning, reasoning, problem-solving, perception, and language comprehension is known as artificial intelligence (AI), and it is no longer an unattainable technological goal. It is a rapidly developing force that is changing practically every aspect of human activity, including education. From AI-powered tutoring chatbots that offer immediate, personalised feedback to automated essay grading systems to predictive analytics that detect at-risk kids before they drop out, AI is radically changing the architecture of teaching and learning in schools. The global EdTech market was valued at USD 142.37 billion in 2023 and is projected to increase to USD 348.41 billion by 2030, with AI-powered tools being the fastest-growing segment, according to Grand View Research (2024). Currently, more than 60% of edtech businesses include AI or machine intelligence into their products (HolonIQ, 2023). Growing institutional acknowledgement that AI will drastically change the skills, pedagogies, and institutional structures needed for education in the twenty-first century is reflected in the development of national strategies for AI in education by the governments of China, the US, Finland, and India.

However, not everyone is persuaded of AI's potential in education. Fundamental worries regarding equity are raised by critics: would AI-driven customisation exacerbate rather than reduce educational disparities? Regarding privacy: are the dangers of monitoring student data intolerable? Regarding pedagogy, does algorithmic optimisation diminish the necessary human aspects of instruction? Regarding labour: is the teaching profession itself at risk from AI? Because of this conflict, one of the most contentious and significant policy discussions of our day is AI in education.

2. Conceptual Framework: AI in Education

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2.1 Defining AI in an Educational Setting

For the purposes of this article, artificial intelligence (AI) in education refers to a variety of technologies that are used in educational tasks, including robotics, computer vision, machine learning (ML), natural language processing (NLP), and expert systems. A straightforward taxonomy that distinguishes AI for learning (student-facing), AI for teaching assistance (teacher-facing), and AI for administration (system-facing) is put forth by Baker and Siemens (2014).

Table 1: Taxonomy of AI Applications in K-12 Education

AI Category	Application in Schools	Examples
Intelligent Tutoring Systems (ITS)	One-on-one personalised instruction	Carnegie Learning, ALEKS, Khanmigo
Adaptive Learning Platforms	Curriculum pacing based on learner data	DreamBox, Smart Sparrow, Squirrel AI
Natural Language Processing Learning Analytics	Writing feedback, reading assessment Dropout prediction, engagement tracking	Turnitin, Grammarly, ChatGPT Brightspace, Canvas Analytics
Automated Assessment	Essay grading, multiple choice scoring	e-rater (ETS), Gradescope
AI Assistants / Chatbots	Q&A support, homework help	Khanmigo, Socratic by Google
Computer Vision	Attention tracking, proctoring	Honorlock, ProctorU
Robotics & Embodied AI	STEM learning, social skills (ASD support)	Pepper Robot, NAO, LEGO Mindstorms

Source: Adapted from Baker & Siemens, 2014; UNESCO, 2023

2.2 Theoretical Foundations

Several well-established learning theories serve as the foundation for the use of AI in education. The fundamental justification for AI-based personalisation is Bloom's Mastery Learning (1968), which holds that all students can master a particular subject if given enough time and the correct kind of education. Vygotsky's Zone of Proximal Development (ZPD) serves as the foundation for adaptive systems that adjust challenges to students' existing boundaries of competence. The foundation for AI systems that facilitate knowledge building through networked exploratory learning is laid by constructivist and connectivist ideas (Siemens, 2005).

3. The Role of AI in Teaching: Enabling and Upsetting

3.1 Teacher Time and Administrative Automation

One of the most immediate ways AI can help in classrooms is by automating time-consuming administrative tasks that consume a disproportionate amount of teacher time. A McKinsey & Company analysis (2020) found teachers spend an average of 46% of their working time on non-instructional tasks, such as lesson planning, grading, attendance, communication and reporting. AI tools that automate these processes could theoretically free up hundreds of hours annually for direct student engagement.

Table 2: Teacher Time Allocation and AI Automation Potential

Teacher Task	Avg. Time/Week	AI Automation Potential
Lesson planning & resource search	4.5 hrs	High (GenAI tools)
Grading & feedback (formative)	5.2 hrs	Moderate to High
Attendance & administrative records	2.1 hrs	High (automation)
Individualised student support	3.8 hrs	Low (human-essential)
Parent communication	1.9 hrs	Moderate (drafting tools)
Professional development	1.5 hrs	Moderate (AI coaching)

Sources: McKinsey & Company, 2020; OECD TALIS, 2023

3.2 AI-assisted differentiation and lesson preparation

Strong generative AI tools like ChatGPT (OpenAI), Gemini (Google), and Claude (Anthropic) have surfaced to help instructors with lesson planning, differentiating materials, developing formative evaluations, and producing culturally relevant content. According to a 2023 RAND Corporation poll of K–12 educators in the United States, 24% of them already used generative AI tools to prepare lessons, and 40% claimed that AI significantly cut preparation time without sacrificing lesson quality.

Importantly, the professional function of the teacher is reinforced rather than replaced by AI-created materials, which still require teacher assessment, contextual adaptation, and pedagogical skill. According to Holmes et al. (2022), rather than viewing AI-in-education technologies as automated instructional substitutes, it is ideal to view them as "cognitive tools" that enhance teacher capacity.

3.3 AI for Early Alert Systems and Classroom Analytics

Machine learning-powered learning analytics tools provide educators with up-to-date information on student participation, engagement, assignment completion, and performance patterns. Attendance, behaviour, and course performance data are used by Early Warning Systems (EWS), like those employed in the Chicago Public Schools and successfully assessed by Allensworth and Easton (2007), to identify students at risk of dropping out months before a crisis arises, allowing for prompt intervention.

Additionally, there are AI-powered tools like Panorama Education and Illuminate Education that offer teachers and counsellors actionable dashboards to visualise student trajectories both individually and at the class level. Institutions that employed learning analytics had 14% greater student retention rates than those that did not, according to Siemens and Long's (2011) research.

3.4 AI-powered Professional Development and Coaching

Through feedback loops and observation, AI is also being utilised for teacher professional development. TeachFX's platform analyses classroom audio using natural language processing (NLP) to determine the ratio of teacher to student discourse, the frequency of open-ended questions, and the quality of discussions. This allows teachers to receive data-driven, reflective feedback without the requirement for peer observers. In a randomised controlled study, Kraft and Blazar (2017) discovered that coaching with data-informed feedback increased teacher teaching quality by 0.20 standard deviations.

4. THE IMPACT OF AI ON STUDENT LEARNING

4.1 Adaptive and Personalised Learning

Scaling personalisation-the capacity to provide customised learning pathways for every student simultaneously, something no human teacher can accomplish alone in a class of thirty-is the most dramatic claim made for AI in education. Algorithms that continuously update a model of each learner's knowledge state and adjust material, tempo, sequencing, and difficulty are the foundation of adaptive learning systems.

Possibly the most researched adaptive system worldwide, Squirrel AI Learning (China) has shown encouraging outcomes. A randomised controlled trial was conducted by Ma et al. (2014). They discovered that pupils who used an intelligent tutoring system outperformed those in regular classrooms by two standard deviations. One-on-one human teaching has a comparable effect. According to Roschelle et al. (2016), a meta-analysis of the adaptive maths platform DreamBox Learning revealed that students' growth in just one year was 1.6 times greater than anticipated.

4.2 Systems for Intelligent Tutoring (ITS)

Artificial intelligence (AI)-based software programs known as Intelligent Tutoring Systems (ITS) imitate the diagnostic and instructional functions of a human tutor, model expert topic knowledge, and provide instantaneous, tailored feedback. Carnegie Learning's MATHia and ALEKS (Assessment and Learning in Knowledge Spaces) are two of the most proven ITS platforms for K–12 maths instruction.

Table 3: Key Intelligent Tutoring Systems - Research Evidence

ITS Platform	Subject	Key Research Finding	Effect Size
Carnegie Learning MATHia	Mathematics (HS)	41% more gain vs. traditional instruction	d = 0.20- 0.30
ALEKS	Mathematics	Students mastered 20% more topics in same time	d = 0.25
AutoTutor	Physics/Biology	Improved deep-level reasoning skills	d = 0.80
ASSISTments	Mathematics	Doubled learning rate with feedback	d = 0.22
Squirrel AI	Multiple Subjects	2 SD improvement vs. classroom instruction	d = 2.0+
DreamBox	K-8 Mathematics	1.6x annual expected growth	d = 0.30

Sources: VanLehn, 2011; Ma et al., 2014; Roschelle et al., 2016

4.3 Motivation, Engagement and Gamification

Through dynamic difficulty adjustment, achievement systems, narrative-embedded problem-solving, and real-time challenge calibration, AI-powered gamification and engagement mechanics tackle one of the most enduring problems in education: student motivation. Duolingo has more than 500 million users globally and has been shown to provide learning effects that are equivalent to official language courses in universities (Vesselinov & Grego, 2012).

It employs AI to customise the spaced repetition and language learning sequence. In comparison to non-game instruction, well-designed educational game environments—particularly those with AI-adaptive difficulty—produced an average impact size of $d = 0.49$ on learning outcomes, according to Mayer's (2019) meta-analysis of 23 controlled experiments. For students between the ages of 10 and 16, STEM subjects showed the biggest effects.

4.4 Students with Special Educational Needs (SEN) and AI in Education

For kids with special educational needs and disabilities (SEND), artificial intelligence holds great potential. Applications include: AI-enabled AAC (Augmentative and Alternative Communication) devices to help non-verbal students communicate; AI emotion recognition systems to support social skill development for students with autism spectrum disorder (ASD); and NLP-enabled text-to-speech and speech-to-text tools for students with dyslexia or visual impairment. In the UK, Japan, and the Netherlands, NAO and Pepper humanoid robots have been used in special education settings. Wainer et al. (2014) demonstrated quantifiable increases in social interaction and joint attention for children with ASD following robot-mediated sessions.

5. Artificial Intelligence in Assessment and Evaluation

5.1 Automated Essay Scoring (AES)

To assess the written text's syntax, vocabulary, coherence, argument structure, and content relevancy, AES systems use NLP and ML algorithms. The Educational Testing Service has been using its e-rater in high-stakes standardised tests all around the world since 1999. E-rater scores on holistic writing quality correlated with human rater scores at a rate of $r = 0.97$, nearing inter-rater reliability between qualified human scorers, according to validity tests by Attali and Burstein (2006).

However, there are still significant concerns. Perelman (2012) showed that students may "gam" AES systems by providing language that is grammatically correct but semantically illogical. According to Bridgeman et al. (2012), students with non-standard dialects and non-native English writers find AES much less dependable, which raises equity concerns about its application in a variety of educational contexts.

5.2 Formative Assessment and Real-Time Feedback

Formative assessment-regular, low-stakes comprehension tests that guide instructional decisions-is arguably the most important use of AI in education. AI is being used by platforms like Formative, Nearpod, and ASSISTments to provide teachers with information on learning gaps throughout the class, flag misconceptions in real-time, and provide students with immediate, personalised feedback.

Improved formative assessment increases student success by effect sizes of $d = 0.40-0.70$, according to Black and Wiliam's groundbreaking meta-analysis "Inside the Black Box" (1998). It is among the most effective initiatives that educators may carry out. The ability of AI to scale formative feedback is revolutionary for teaching quality.

5.3 AI-Powered Examination Proctoring: Promise and Peril

During the COVID-19 epidemic, AI-based proctoring systems (such as ProctorU, Honorlock, and ExamSoft) were rapidly embraced. These tools use computer vision and behavioural analytics to identify any cheating during remote exams. By 2021, more than 500 institutions and hundreds of K–12 testing organisations worldwide have implemented AI proctoring systems. However, there has been harsh criticism of the systems. Swauger (2020) discovered that students from non-Western homes, students of colour, and students with disabilities were significantly more likely to obtain a false positive from AI proctoring algorithms, raising grave concerns about the impact of discrimination. The use of AI proctoring in national exams was later restricted by the Joint Council for the Qualifications in the UK (2023) awaiting additional equity assessment.

6. ChatGPT and Generative AI for Schools

6.1 The Revolution of ChatGPT

An important turning point for AI in education was the November 2022 release of OpenAI's ChatGPT. In less than two months, students in nearly every nation were using ChatGPT to complete schoolwork, compose essays, solve math problems, and write code. According to a January 2023 Stanford University poll, 89% of college students and an estimated 43% of US secondary school students used ChatGPT for assignment work (CommonSense Media, 2023).

"Teachers who use AI will replace teachers who don't, but AI won't replace teachers." (Fei-Fei Li, Stanford AI Lab, 2023).

Early institutional responses were primarily prohibitive: in early 2023, ChatGPT was restricted on school networks by the Los Angeles Unified School District, New York City Public Schools, and numerous local authorities in the United Kingdom. However, by mid-2023, the majority of significant educational systems had changed their direction and embraced a "critical integration" strategy after understanding that ban was both unenforceable and ineffective from a pedagogical standpoint (UNESCO, 2023).

6.2 Benefits of Generative AI for Education

- **Scaffolded Writing Development:** For EAL/EFL learners in particular, GenAI tools can offer scaffolded writing development, which supports students with structural direction while preserving authorial voice.

- Socratic Dialogue and Critical Thinking: Khanmigo guides students' reasoning through questions rather than offering solutions.
- Research Skill Development: Students gain 21st century information literacy and source evaluation abilities by learning how to prompt, assess, and critically challenge AI-generated content.
- Differentiated Content Generation: Teachers can use GenAI to swiftly create discussion questions, vocabulary scaffolding, and differentiated reading passages for students of different skill levels.
- Language Learning: Conversational AI fills a significant void in traditional training by providing language learners with constant, low-stakes speaking practice.

6.3 The Crisis of Plagiarism and Academic Integrity

Current plagiarism detection frameworks are essentially out of date due to generative AI. According to Turnitin's 2023 annual report, AI-detection systems could identify AI-generated content with 98% accuracy in a controlled setting, but only 67% accuracy for heavily altered AI text, with a high chance of false positives. However, between 2022 and 2023, the UK saw a 340% increase in AI-related academic misconduct charges (Copyright and Licensing Agency, CLA, UK, 2023). Researchers like Bearman and Conceicao (2023) contend that assessment redesign—moving toward process-oriented, oral, context-specific, and creative evaluations that cannot be effectively outsourced to AI—is a better answer to GenAI in schools than detection-and-punishment.

7. Equality and Ethical Dimensions of AI in Education

7.1 Algorithmic Bias and Discrimination

The fairness of AI systems in education depends on the quality of the training data. AI systems run the risk of imprinting and magnifying past patterns of educational inequality if training records show that marginalised groups do poorly due to systemic disadvantage rather than natural aptitude. Black, Indigenous, and low-income populations are routinely disadvantaged by algorithmic systems across a range of domains, as revealed by Noble (2018) and Benjamin (2019). In particular, it has been noted that AI systems in education: (i) produce NLP models that perform less accurately on African American Vernacular English (AAVE) and non-standard dialects; (ii) suggest lower academic tracks for minority students; and (iii) provide lower predicted achievement scores for students from lower socioeconomic status (Koenecke et al., 2020). These results suggest the demand for a thorough algorithmic assessment prior to implementation in educational institutions.

7.2 Privacy of Student Data and Surveillance

AI educational platforms are fundamentally data-hungry, as their analytics and customisation features rely on a continuous gathering of student behavioural, emotional, and performance data. There are significant ramifications for student privacy, consent, and monitoring depending on how much data is collected in AI-powered schools.

Table 4: Types of Student Data Collected by AI Educational Platforms and Associated Privacy Risks

Data Type Collected	AI Application	Privacy Risk Level
Keystrokes & writing process data	AI writing tools, AES	Moderate
Facial expression & emotion data	Attention tracking, engagement AI	High
Voice recordings	NLP tutoring, speech tools	High
Browsing & click-stream behaviour	Learning analytics platforms	Moderate
Biometric data (eye-tracking)	AI proctoring systems	Very High
Academic performance history	Adaptive learning, EWS	Moderate
Social interaction patterns	Collaboration analytics	High

7.3 The Digital Divide and AI Equity

The benefits of AI in education are not available to all. Schools in low-income communities, rural areas and developing nations often lack the broadband connectivity, device infrastructure and teacher digital literacy to effectively deploy AI tools. The UNESCO Global Education Monitoring Report (2023) warns that if the adoption of AI is not properly managed, it could lead to the creation of a new “AI divide”, which will replicate and deepen the current socioeconomic inequalities in education.

'EdTech solutionism'—the uncritical belief that technological tools will solve deep, structural educational problems—consistently overpromises and underdelivers for the most marginalised students, while disproportionately benefiting those already educationally advantaged, argues Selwyn (2022).

7.4 Teacher Displacement and the Future of the Teaching Profession

One constant concern among educators is whether AI will make teachers obsolete. The World Economic Forum's Future of Jobs Report (2023) predicts that AI and automation will eliminate 85 million jobs globally by 2025, while creating 97 million new jobs. Teaching has been identified as one of the most 'automation-resistant' professions due to its relational, emotional and contextually adaptive nature. According to the OECD (2023) TALIS data, 72% of teachers do not feel threatened by AI but worry about not being trained enough in how to use it effectively.

8. Global Policy Responses to AI in Education

Table 5: National and International Policy Frameworks for AI in Education

Country/Region	Policy Initiative	Key Provisions
European Union	AI Act (2024) + Digital Education Action Plan	High-risk AI classification for education; data rights; teacher training mandates
United States	National AI Initiative Act + Blueprint for AI	Federal AI literacy funding; algorithmic accountability in schools
China	Next Generation AI Development Plan (2017)	AI curriculum from primary; national AI labs in schools; Squirrel AI rollout
United Kingdom	AI in Education Guidance (DfE, 2023)	Responsible AI use framework; copyright guidelines; GenAI literacy for teachers
UNESCO	Recommendation on the Ethics of AI (2021)	Human rights-based AI ethics; data sovereignty; equitable access mandates
India	NEP 2020 + National AI Strategy (NITI Aayog)	AI literacy in curriculum; digital infrastructure under PM eVIDYA
Singapore	AI Singapore + MOE AI Literacy Programme	Universal AI literacy K-12; ethical AI curriculum; teacher competency framework

Sources: EU, DfE, UNESCO, NITI Aayog, MOE Singapore, 2021-2024

When comparing these frameworks side by side, we find agreement on four principles: (1) AI literacy as a universal educational entitlement; (2) teacher empowerment through professional development rather than teacher replacement; (3) student data rights and privacy protection; and (4) equitable access, or making sure AI's benefits are not restricted to well-resourced schools. EdTech market practices will be greatly impacted by the EU AI Act's classification of AI systems in education as "high-risk," which is the strictest regulatory position in the world.

9. Challenges, Limitations, and Critical Perspectives

9.1 The Black Box Problem in Educational AI

Many high-performing AI systems, particularly deep learning neural networks, operate as "black boxes," generating results without clear logic that educators, parents, or students can comprehend, examine, or contest. Explainability is a basic ethical and educational responsibility rather than merely a technological issue. When an AI system identifies an essay as AI-generated or recommends that a student be placed in a lesser academic stream, educators and students should be given a clear explanation (Doshi-Velez & Kim, 2017).

9.2 Dangers of Deskilling and Over-Reliance

The largest pedagogical risk associated with AI integration is over-reliance, or the possibility that students would delegate cognitive tasks to AI tools rather than honing their own critical thinking, writing, and problem-solving abilities. Tool-mediated cognitive offloading can atrophy the cognitive skills being offloaded, according to research by Kahneman (2011) and Carr (2010). This raises questions about the long-term developmental effects of AI-assisted learning from an early age.

9.3 Hype Cycles and Quality of Evidence

Behind the hoopla is typically the case for AI in education. A systematic review of the literature on AI in education was conducted by Luckin et al. (2016), who warned against early large-scale implementation based on scant evidence because many of the documented studies were hindered by small sample sizes, short intervention periods, lack of control groups, and publication bias. AI in K–12 education is at the "Peak of Inflated Expectations," according to the Gartner Hype Cycle (2023).

9.4 Infrastructure and implementation gaps

- **Teacher Training Deficit:** According to a 2023 OECD TALIS poll, the largest implementation barrier is that only 19% of instructors felt sufficiently prepared to deploy AI tools to help education.
- **Connectivity Inequality:** According to UNESCO, 2.9 billion people worldwide do not have access to the internet, and these people are disproportionately located in the areas where public education is most prevalent.
- **Vendor lock-in and procurement:** Schools run the risk of becoming reliant on private EdTech companies whose business strategies might not be in line with long-term institutional requirements or public educational values.
- **Cultural and Linguistic Gaps:** The majority of AI educational tools are created for WEIRD, English-speaking situations; their use in a variety of cultural and linguistic contexts has not been well tested.

10. Suggestions for Practice and Policy

10.1 For policymakers and governments

- **Create National AI-in-Education Frameworks:** Before implementing AI technologies in classrooms, establish precise ethical norms, data governance requirements, and equitable benchmarks.
- **Make AI Literacy a National Curriculum Requirement:** Beginning in elementary school, children should be taught the conceptual understanding of AI's operation, its effects on society, and how to critically analyse content produced by AI.
- **Make a large-scale investment in teacher professional development** by allocating resources specifically for AI competency training for the entire teaching staff, with a focus on pedagogical integration rather than tool familiarity.

- **Demand EdTech Algorithmic Auditing:** To ensure that AI-based educational tools are free from discriminatory bias, they should be independently audited by a third party prior to acquisition.
- **Protect Student Data Rights:** Enact legislation that forbids the commercial use of student data, restricts data collection to what is required for education, and mandates deletion rights.

10.2 For Teachers and School Leaders

- **Pedagogy-First Approach:** Rather than being motivated by novelty or commercial pressure, the use of AI tools should be guided by pedagogical aim. What particular learning difficulty does this address?
- **Redesign Assessment for the AI Age:** AI cannot replace process portfolios, oral exams, contextualised project work, and collaborative assessment.
- **Establish School AI Ethics Committees:** Involve educators, learners, parents, and community members in choices regarding the use of AI tools and their circumstances.
- **Protect the Relational Core of Teaching:** In particular, protect in-person human interaction—mentoring, pastoral care, and group discussions—as crucial, indisputable components of every student's education.

10.3 A Framework for Ethical AI Integration in Schools

Table 6: A Seven-Principle Framework for Ethical AI Integration in Schools

Principle	Description	Operationalisation
Human Centricity	AI augments, never replaces, the teacher-student relationship	Policy: human oversight of all AI recommendations
Transparency	AI systems must be explainable to students and teachers	Procurement: require explainable AI (XAI) standards
Equity	AI must not deepen educational disparities	Mandatory bias auditing pre-deployment
Privacy	Student data collection minimised and governed	Legislative data protection and school policies
Inclusion	AI tools accessible to all learners including SEND	Accessibility standards in procurement criteria
Competence	Teachers trained and confident before deployment	Funded CPD as prerequisite, not afterthought
Accountability	Clear responsibility when AI causes harm	Liability frameworks for EdTech vendors

11. Conclusion

With its remarkable ability to customise learning experiences, democratise high-quality instruction, automate repetitive chores, and identify children at risk before a crisis arises, artificial intelligence is poised to transform education. When used carefully, well-designed, pedagogically grounded AI tools—particularly Intelligent Tutoring Systems, adaptive learning platforms, and formative feedback tools—can significantly improve learning outcomes, according to the research findings discussed in this article. However, the critical viewpoint is just as persuasive. AI is not a neutral instrument in teaching. It raises serious concerns about privacy, surveillance, professional identity, and the purpose of education in general; it is formed by the values, priorities, and financial interests that are ingrained in its design; and it both embodies and can magnify the biases present in its training data. Vigilance is necessary because there is a real risk that AI may become an instrument of more unfairness, reserved for well-resourced schools while under-resourced schools receive inferior data-harvesting replacements.

It is difficult for academics, educators, and policymakers to accept AI without question or to automatically reject it. It is a well-informed, values-driven, equity-centered integration that prioritises student welfare, human relationships, and pedagogical purpose in all AI decisions. By overcoming this obstacle, schools will be able to teach students not just how to live with artificial intelligence, but also how to comprehend, influence, and manage it. This is ultimately the most crucial educational goal for the twenty-first century.

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