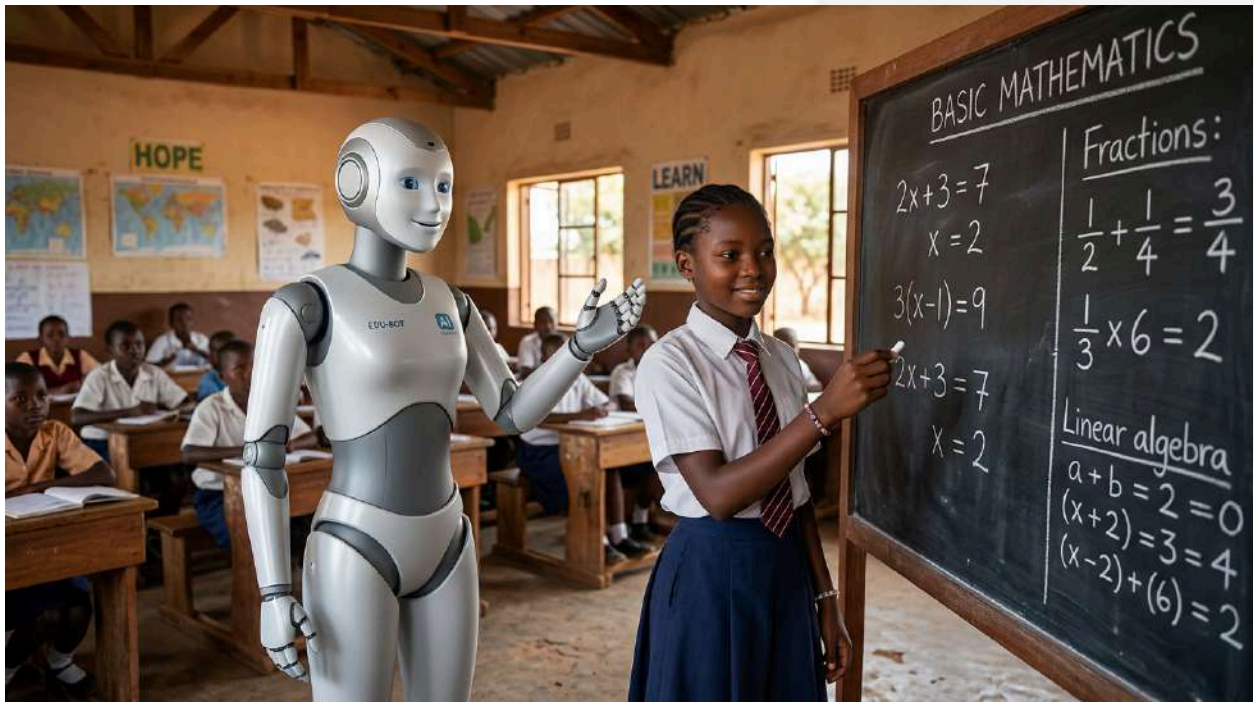


# AI in Education: A Valuable Ally to Improve Education Delivery, Teaching and Learning Experience

by **Akolade Oladipupo** [March 2026]



AI as a learning ally: supporting, not replacing the human experience in education. [Source: Generated with Perplexity AI (March 19, 2026)]

## Education is a promise

Education is a promise we renew with every child: that learning can open doors to dignity, livelihoods and full participation in society. Yet across Africa, and indeed around the world, that promise is under pressure. Classrooms are overcrowded, teachers are stretched, and many systems still struggle to convert years of schooling into meaningful learning.<sup>1</sup> At the same time, a new generation of tools has arrived. Artificial Intelligence (AI) is no longer an abstract

curiosity; it already influences how we write, search, translate, plan, practise and create. Used well, AI can be a *valuable ally* in education: boosting the craft of teaching, personalising support for learners, and helping leaders run schools and systems more fairly and efficiently.<sup>2</sup>

But “ally” is the key word. AI is not a panacea. The most credible global guidance urges *cautious optimism*: invest in teacher capacity, infrastructure, governance, and evidence; diagnose readiness; and

<sup>1</sup> Oladipupo, A. (2025, July). [The promise of education: Improving literacy levels in Nigerian schools](#). LEAP Africa.

<sup>2</sup> Molina, E., Cobo, C., Pineda, J., & Rovner, H. (2024). [AI revolution in education: What you need to know](#) (Digital Innovations in Education, Brief No. 1). World Bank.

design for equity so that no learner is left behind and we do not widen the digital divide we seek to close.<sup>2</sup> AI's promise is impressive, but many innovations are still early, with limited rigorous evidence at scale. Responsible adoption requires piloting, evaluation, and adaptation.

Why now? Systems face persistent headwinds: a global teacher gap, rising administrative burdens, and fast-changing labour market skills. **UNESCO estimates tens of millions of additional teachers are needed globally by 2030**, with the shortage especially acute in Sub-Saharan Africa, where an additional 15 million teachers will be required to deliver universal early-childhood and basic education.<sup>3</sup> Against this backdrop, AI can help us **do the right things better**: lighten routine tasks, surface new insights from data, and extend high-quality academic support to learners who might otherwise be left behind.<sup>2</sup>

AI alone will not fix the structural challenges facing education systems. But if introduced carefully, it can strengthen the human systems that make learning possible. Teachers can use it to plan and reflect on lessons more efficiently. Students can receive more personalised support and feedback. Administrators can use better data to anticipate problems and allocate resources more fairly.

The real opportunity lies not in the tools themselves, but in how education systems choose to use them: not as replacements for teachers or shortcuts to reform, but as practical supports that help educators do their work better.<sup>4</sup>

## **AI for Teachers: Amplifying the Craft, Not Replacing It**

Great teaching is relational, deliberate and context-aware. AI could serve as a co-teacher, supporting planning, feedback and administration, so teachers spend more time on high-value interactions

with students. The evidence is emerging but encouraging.

### *1. Planning and curriculum design*

AI-assisted lesson planning tools can generate outlines, sample materials, questions, and differentiated tasks aligned to curriculum objectives, reducing time spent on formatting and helping teachers focus on pedagogy. Research cautions that heavily scripted lessons can constrain teacher autonomy; yet unsystematic planning typically reduces lesson quality. AI can bridge these poles: preserving structure and quality while allowing adaptable, context-sensitive modifications.<sup>5,6</sup> A practical starting point is asking an AI assistant to generate differentiated variants of a lesson activity at multiple levels, using locally relevant examples such as market prices or distances between towns, then reviewing for curriculum alignment and inclusivity before testing with students. Capturing reflections in a shared departmental log turns individual experimentation into collective learning.

### *2. Feedback for professional growth*

Automated feedback on classroom discourse, covering teacher talk time, wait time and question types, can offer specific, actionable insights that otherwise require costly coaching. Trials show promise for improving questioning quality with automated guidance,<sup>7</sup> and tools that analyse classroom audio to provide formative feedback represent a practical application of this approach, such as TeachFX.<sup>2</sup> Schools that treat AI-based coaching as a structured inquiry, defining clear indicators, establishing a baseline, and reviewing change over a fixed period, are better positioned to distinguish genuine pedagogical improvement from the effect of other variables such as training or scheduling.

<sup>3</sup> World Economic Forum. (2024). *Shaping the Future of Learning: The Role of AI in Education 4.0*.

<sup>4</sup> Note: Any mention of third-party tools or platforms in this article is for illustrative purposes only and does not imply endorsement. Readers are encouraged to exercise their own judgement in selecting and using such tools.

<sup>5</sup> Piper, B., Sitabkhan, Y., Mejía, J., & Betts, K. (2018). *Effectiveness of Teachers' Guides in the Global South*. RTI Press.

<sup>6</sup> Dresser, R. (2012). *The impact of scripted literacy instruction on teachers and students*. *Issues in Teacher Education*, 21(1), 71-87.

<sup>7</sup> Demszky, D., Liu, J., Hill, H. C., Sanghi, S., & Chung, A. (2023). *Improving teachers' questioning quality through automated feedback*. EdWorkingPaper No. 23-875.

### 3. Reducing workload

AI can automate or assist with parts of grading, draft feedback, generate rubrics, log attendance and prepare progress summaries, freeing teachers for deeper formative work. Studies suggest these tools reduce workload when teachers are supported to implement them, though effects can be mixed without adequate capacity building.<sup>8,9</sup> Using AI to produce first-pass comments on written work against a rubric, then humanising and verifying the output, is one way to realise time savings without sacrificing the quality of feedback that students receive. The time recovered is most productively redirected toward one-to-one engagement with learners who are falling behind.

### 4. Attracting and retaining teachers

AI chatbots can provide career advice, highlight training and scholarship opportunities, and support young people considering the teaching profession. For systems facing chronic shortages, as is common across Africa, these low-cost, always-on assistants can meaningfully complement human outreach.<sup>2</sup> A ministry-backed chatbot that answers prospective and current teachers' questions about recruitment, scholarships and career progression is a relatively low-investment intervention that can reduce both barriers to entry and early attrition.

## AI for Students: Personalised, Inclusive and Ethical Learning

The most powerful argument for classroom AI is its potential to personalise practice and feedback. When designed well, AI can approximate some benefits of tutoring, one of the most effective learning interventions known, while reaching far more learners than one-to-one human support allows.<sup>10</sup>

<sup>8</sup> Selwood, I., & Pilkington, R. (2005). *Teacher workload: using ICT to release time to teach*. *Educational Review*.

<sup>9</sup> du Boulay, J. (2016). *Artificial Intelligence as an Effective Classroom Assistant*. *IEEE Intelligent Systems*.

<sup>10</sup> Nickow, A., Oreopoulos, P., & Quan, V. (2020). *The impressive effects of tutoring on PreK-12 learning: A systematic review and meta-analysis of the experimental evidence* (NBER Working Paper No. 27476). National Bureau of Economic Research.

### 1. AI-powered tutors and practice companions

AI tutoring systems can adapt difficulty levels, provide hints and offer instant feedback, scaling some of the benefits of one-to-one tutoring.<sup>10</sup> Combined with classroom teaching, they create hybrid learning models that reinforce mastery while keeping human guidance central. Randomised trials, including in Latin America, have shown gains in mathematics remediation and pass rates when students access adaptive platforms.<sup>2</sup> Incorporating short, structured AI-supported practice sessions into the daily routine for foundational skills, and tracking results systematically, allows teachers to monitor progress and adjust instruction with greater precision than periodic testing alone.

### 2. Accessibility and inclusion

AI can power accessible digital textbooks with narration, sign-language video, audio descriptions and interactivity, designed to work offline and customisable to diverse needs. UNICEF's Accessible Digital Textbook initiative is applying universal design principles and AI to expand access, including through pilots across Africa.<sup>3</sup> When procuring or recommending tools, prioritising those that incorporate text-to-speech, image descriptions and keyboard navigation ensures that accessibility is treated as a baseline requirement rather than an optional feature.

### 3. Assignments, integrity and AI literacy

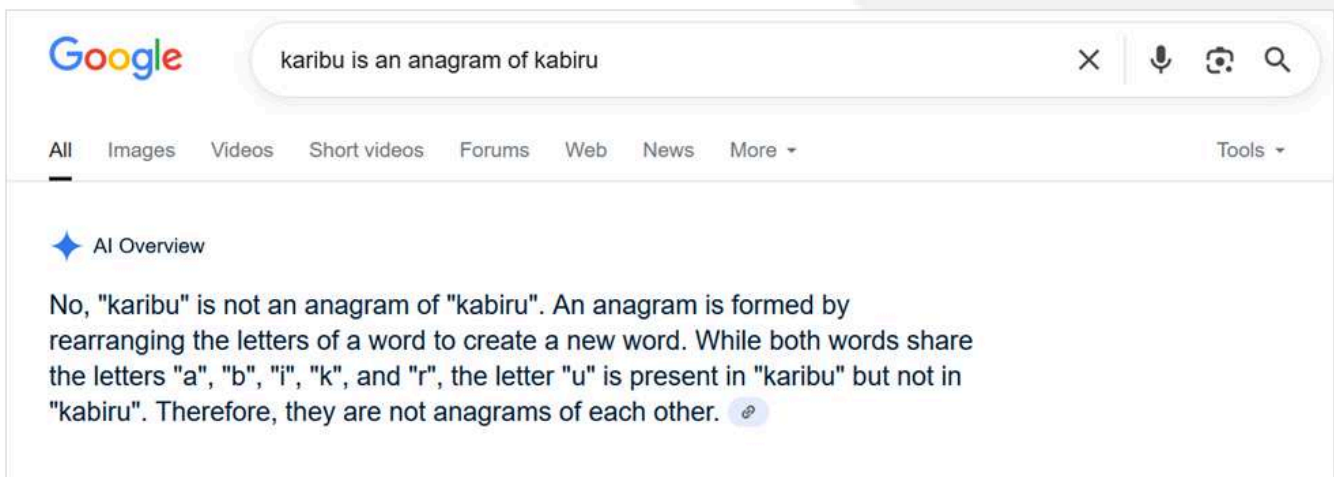
Students are already using generative AI to brainstorm, translate, summarise and draft. Rather than blanket bans, the evidence points toward smarter assessment design and explicit guidance on responsible use.<sup>11,12</sup> Detection tools for AI-generated text remain unreliable and risk penalising students unfairly, so punitive detection-based approaches are not a sustainable response.<sup>13</sup>

<sup>11</sup> Smolansky, A., Cram, A., Radulescu, C., Zeivots, S., Huber, E., & Kizilcec, R. F. (2023, July). *Educator and student perspectives on the impact of generative AI on assessments in higher education*. In *Proceedings of the 10th ACM Conference on Learning @ Scale* (pp. 378-382). Association for Computing Machinery.

<sup>12</sup> Sullivan, M., Kelly, A., & McLaughlan, P. (2023). *ChatGPT in higher education: Considerations for academic integrity and student learning*. *Journal of Applied Learning & Teaching*, 6(1).

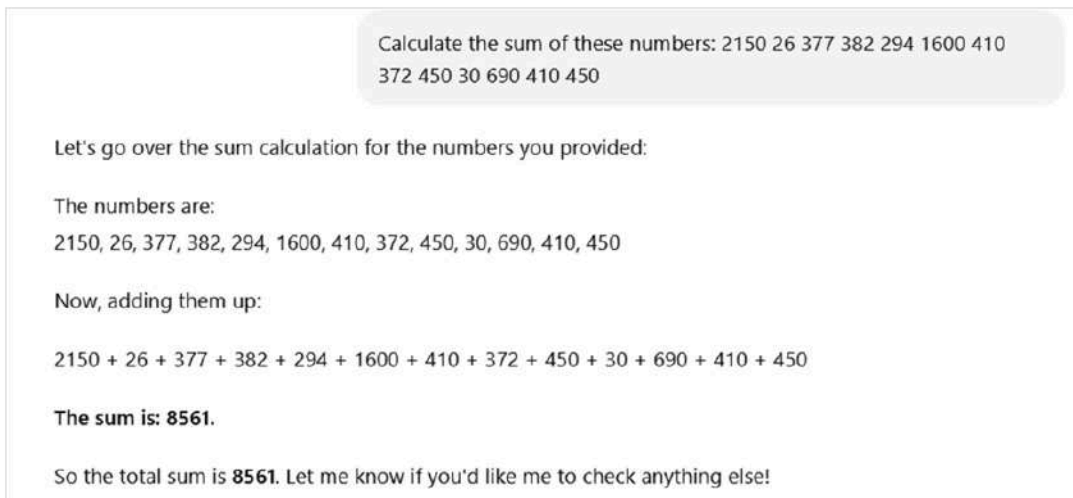
The more productive shift is in how assessment is designed. Requiring students to submit their prompt history and a short reflection on how their thinking evolved holds them accountable for the process, not just the product. Combining AI-assisted drafting with brief oral defences or in-class reworking makes it harder to outsource understanding. Teaching students to interrogate AI outputs, asking the tool to generate plausible wrong answers and correct them, or to explain its reasoning step by step, builds the kind of critical engagement that strengthens rather than undermines learning.

Equally important is teaching the limits of these tools. Generative AI systems can produce confident but incorrect responses: a phenomenon often referred to as “hallucination,” particularly in tasks requiring precise reasoning, complex problem solving, or local language nuances.<sup>14,15</sup> Some simple experiments reveal this clearly. In one case, an AI system incorrectly answered an **anagram question involving the names “Karibu” and “Kabiru,”** misidentifying the relationship between the two words despite their obvious letter arrangement.



An example of AI anagram error – “Karibu/Kabiru” (Google Search, August 12, 2025). [Source: Author's screenshot]

In another example, an AI tool produced an incorrect answer when asked to **calculate the sum of a list of numbers**, a task that should be straightforward but can fail when the model relies on pattern prediction rather than true computation.



An example of AI calculation error (ChatGPT free version, September 3, 2025). The correct sum of the numbers is **7,641**. The system [returned the correct result only after an additional prompt](#) requesting a step-by-step aggregation of the calculation. [Source: Author's screenshot]

Examples like these are part of the reason some critics remain cautious about the rapid adoption of AI in education, particularly when users rely on it in subjects where they have limited background knowledge. For educators and students alike, AI literacy must therefore include an understanding of what these tools do poorly. The responsible practice is simple but essential: treat AI outputs as a starting point, not a final authority, and verify important facts, calculations and interpretations before using them.

## AI for Administration: Smarter, More Responsive Systems

Behind every strong classroom is a well-run school and a responsive system. AI can help administrators manage resources, anticipate risks and improve service quality.

### 1. AI assistants for routine processes

From timetabling and classroom allocation to drafting letters and consolidating reports, AI assistants can reduce administrative bottlenecks and free staff for more human-centred work.<sup>2</sup> The most immediate gains tend to come from using AI to draft templates, consolidate routine data such as attendance, grades and staff records into a single decision-support dashboard, and handle repetitive query responses. These are not transformative changes in themselves, but they recover time and attention that is better spent elsewhere.

### 2. Early warning systems

Dropout rarely happens overnight. The signals, attendance dips, assessment slumps and behaviour flags, accumulate over time, and by the time they are visible to an overstretched teacher or administrator, disengagement may already be entrenched. AI-enabled early warning systems can surface at-risk learners earlier, allowing schools to act before

disengagement becomes exit. Country-scale learning analytics, including work from Uruguay, demonstrate the feasibility of early prediction and targeted support at system level.<sup>16</sup> The practical priority for most schools is identifying which risk indicators are already captured in existing student records and finding simpler ways to extract and act on them, before investing in more sophisticated predictive tools.

### 3. Fairer resource allocation

AI can improve matching across a system: teachers to vacancies, students to schools, materials to needs, reducing both inefficiency and inequity. Evidence from Latin America on smart matching platforms documents meaningful efficiency gains and better placement outcomes.<sup>17,18</sup> A sensible starting point is applying AI to a single, well-defined process, such as teacher placement based on subject need and proximity, using transparent criteria that stakeholders can scrutinise. Tracking the effect on teacher distribution and pupil-teacher ratios in underserved areas builds the evidence base and the institutional trust needed to expand the approach.

## AI for Common Needs: Everyday Tools That Save Time and Sharpen Work

AI in education is not only about transforming classrooms or reforming systems. It also addresses the everyday friction points that slow down thoughtful work. Whether reviewing documents, preparing a presentation, capturing meeting notes or formatting references, AI tools can simplify routine tasks and free up mental space for more substantive thinking. Many of these tools are widely discussed but still underused in practice. When applied well, they quietly improve efficiency and support more consistent, timely delivery.

<sup>13</sup> Weber-Wulff, D., Anohina-Naumeca, A., Bjelobaba, S., Foltýnek, T., Guerrero-Dib, J., Popoola, O., Šigut, P., & Waddington, L. (2023). [Testing of detection tools for AI-generated text](#). *International Journal for Educational Integrity*, 19(1), Article 26.

<sup>14</sup> Adel, A., & Alani, N. (2025). Can generative AI reliably synthesise literature? [Exploring hallucination issues in ChatGPT](#). *AI & Society*, 40, 6799–6812.

<sup>15</sup> Bang, Y., Cahyawijaya, S., Lee, N., Dai, W., Su, D., Wilie, B., Lovenia, H., Ji, Z., Yu, T., Chung, W., Do, Q. V., Xu, Y., & Fung, P. (2023). [A multitask, multilingual, multimodal evaluation of ChatGPT on reasoning, hallucination, and interactivity](#). *arXiv*.

<sup>16</sup> Queiroga, E.M.; Batista Machado, M.F.; Paragarino, V.R.; Primo, T.T.; Cechinel, C. (2022). [Early Prediction of At-Risk Students in Secondary Education](#). *Information*, 13(9), 401.

<sup>17</sup> Arteaga, F., Elacqua, G., Krussig, T., Méndez, C., & Neilson, C. A. (2022). [Can information on school attributes and placement probabilities direct search and choice?](#) IDB Working Paper.

<sup>18</sup> Elacqua, G., Gómez, L., Krussig, T., Marotta, L., Méndez, C., & Neilson, C. (2022). [The potential of smart matching platforms in teacher assignment: The case of Ecuador](#). IDB Working Paper.

### *1. Transcription and note-taking*

AI transcription tools such as Otter.ai, Read AI, Notta or TurboScribe can convert lessons, workshops or meetings into searchable notes that can be shared and revisited. This supports inclusive practice, for example by helping hearing-impaired learners follow discussions or by creating accurate records of parent-teacher meetings. Many tools generate real-time transcripts, summaries and action points during virtual sessions, while others allow recordings to be uploaded and transcribed afterwards.

Transcripts also become a useful resource for professional reflection. Teachers can review them to examine patterns in classroom dialogue: who spoke most, what kinds of questions were asked, which topics drew the most engagement. Such insights can inform future lesson planning in ways that memory alone rarely allows.

### *2. Reviews and scoping*

AI tools can accelerate document review and knowledge synthesis in ways that matter for busy professionals. Platforms such as NotebookLM or SciSpace Copilot can analyse large volumes of text, compare sources and extract key arguments from PDFs or reports, making them well suited to drafting briefs, designing lessons or conducting rapid scoping reviews. Some generate audio summaries that present key insights in a conversational format, useful for listening during travel or sharing with colleagues.

Uploading a curriculum guide or research report and asking the tool to identify the most relevant ideas for a specific classroom context is a practical starting point. The output still requires verification and refinement, but the time saved on initial synthesis is significant.

### *3. Reference formatting*

Formatting references is tedious, error-prone work that AI handles well. Tools such as Zotero plugins or

Scite.ai, and generative AI tools given a clear prompt, can transform loosely organised bibliographies into properly structured reference lists in seconds. The one firm caution is that AI can occasionally generate incorrect journal titles or page numbers, so careful checking remains necessary. Used with that awareness, these tools can save considerable time for researchers, students and administrators alike.





### *4. Visuals and diagrams*

Clear visuals often make complex ideas more accessible than prose alone. AI-enhanced tools such as Draw.io, Whimsical and Lucidchart allow users to produce diagrams, timelines and conceptual maps quickly, without specialist design skills. Others, such as NotebookLM, Gemini, DALL-E or Canva Magic Design, can generate illustrations, infographics and presentation visuals from short prompts. For education teams developing programme proposals or communicating results to stakeholders, drafting an initial impact pathway diagram with AI and then refining it collaboratively is far faster than building one from scratch, and often produces a sharper starting point for discussion.

### *5. Slide and report generation*

Preparing presentations frequently consumes far more time than the thinking behind them. AI-assisted platforms such as Gamma, NotebookLM, Genspark.ai and Beautiful.ai can convert outlines, prompts or documents into structured slide decks or one-page summaries. For professionals working under tight timelines, they offer a credible starting point that can be edited and localised for specific audiences. The appropriate use of these tools is to accelerate production, not replace judgement; the value lies in redirecting energy from formatting to interpretation, from layout to argument.

## AI Tools in Education at a Glance

| Area   | Use Case                          | Example Tools  |
|--|-----------------------------------|--|
| <br><b>Teachers</b>       | Lesson planning & differentiation | <a href="#">ChatGPT</a> , <a href="#">Gemini</a> , <a href="#">Microsoft Copilot</a>       |
|  | Classroom feedback & coaching     | <a href="#">TeachFX</a> , <a href="#">Edpuzzle</a>   |
|  | Grading & progress summaries      | <a href="#">Gradescope</a> , <a href="#">Writable</a>                                      |
|  | Teacher recruitment support       | Ministry chatbots, Career AI assistants  |
| <br><b>Students</b>       | Personalised tutoring & practice  | <a href="#">Khan Academy Khanmigo</a> , <a href="#">Duolingo</a> , <a href="#">Knewton</a> |
|  | Accessible learning materials     | <a href="#">UNICEF ADI</a> , <a href="#">Speechify</a> , <a href="#">Snap&amp;Read</a>     |
|  | Assessment & AI literacy          | <a href="#">ChatGPT</a> , <a href="#">Perplexity</a> , <a href="#">Claude</a>              |
| <br><b>Administration</b> | Routine processes & reporting     | <a href="#">Microsoft Copilot</a> , <a href="#">Google Workspace AI</a>                    |
|  | Early warning systems             | <a href="#">Brightspace</a> , <a href="#">PowerSchool Analytics</a>                        |
|  | Resource & teacher allocation     | Smart matching platforms   |
| <br><b>Common Needs</b> | Transcription & note-taking       | <a href="#">Otter.ai</a> , <a href="#">TurboScribe</a> , <a href="#">Read AI</a>           |
|  | Document review & scoping         | <a href="#">NotebookLM</a> , <a href="#">SciSpace Copilot</a>                              |
|  | Reference formatting              | <a href="#">Zotero</a> , <a href="#">Scite.ai</a>  |
|  | Visuals & diagrams                | <a href="#">Draw.io</a> , <a href="#">Whimsical</a> , <a href="#">Canva Magic Design</a>   |
|  | Slides & report generation        | <a href="#">Gamma</a> , <a href="#">Genspark</a> , <a href="#">Beautiful.ai</a>            |

### Challenges and Ethics: Guardrails That Build Trust

The most credible AI initiatives treat ethics not as an afterthought but as a design principle, shaping how technologies are introduced, governed and evaluated from the outset.

#### 1. Equity and the digital divide

AI benefits will remain unevenly distributed unless systems invest deliberately in connectivity, devices and teacher capacity, particularly in underserved communities. Development partners, including the World Bank, emphasise the importance of strengthening digital infrastructure and public digital

goods to avoid widening existing inequalities.<sup>2</sup> In practical terms, this means tying AI adoption to an equity commitment: subsidised connectivity for schools, shared device programmes and procurement policies that prioritise tools capable of functioning in low-bandwidth environments.

#### 2. Privacy, safety and data governance

Learning analytics can generate valuable insights but also raise legitimate concerns about privacy and consent. Governance frameworks must establish clear norms on data collection, storage, access and accountability, and teachers, students and families should understand how educational data is used and

what protections are in place.<sup>2</sup> Responsible implementation requires attention to legal bases for data collection, limits on secondary use, anonymisation where possible, interoperable data standards, child protection protocols and vendor contracts with clear breach notification requirements.

### 3. Bias, cultural relevance and transparency

Many AI systems are trained predominantly on Global North data, which means they can misread African contexts, languages or cultural references, with consequences ranging from irrelevant outputs to actively harmful recommendations.<sup>3</sup> Adaptation and local evaluation are not optional refinements; they are essential to preventing bias from being embedded at scale. Procurement processes should require prompt libraries and examples grounded in local curricula and languages, with human review built into any high-stakes decision the system influences.

### 4. Academic integrity and assessment redesign

Tools designed to detect AI-generated text remain unreliable and risk penalising students on the basis of false positives.<sup>13</sup> Integrity cannot rest on detection alone. It must be built into assessment design through a deliberate combination of product evidence such as submitted work, process evidence such as planning notes and reflective journals, and performance evidence such as oral defences or practical demonstrations. This approach is harder to game and more genuinely revealing of what students know and can do.

Another emerging challenge is the absence of clear institutional guidance on how AI should be used in learning and assessment. Even in highly resourced systems, policy frameworks are still developing. In the United States, national survey data shows that **only 31% of schools have clear AI policies, and just 48% of teachers report receiving training on AI use**, leaving many educators uncertain about expectations and responsible practice.<sup>19,20</sup>

If such policy gaps exist in well-resourced systems, the challenge is even more pronounced across many African education systems where formal guidance is only beginning to emerge. Without clear frameworks, schools risk inconsistent practices: some teachers banning AI outright, others ignoring it entirely, and students navigating expectations without guidance. Effective AI integration therefore requires clear policies, teacher training, and practical guidance on how AI fits into teaching, learning and assessment.

One promising approach to managing AI use in assessment is the **Artificial Intelligence Assessment Scale (AIAS)**, which offers a structured framework for ethical and transparent use of generative AI in academic work.<sup>21</sup> Rather than treating AI use as either allowed or forbidden, the framework introduces a five-level scale that clarifies expectations for different types of tasks.

#### AI Assessment Scale (Adapted from <sup>21</sup>)

**Level 1 (No AI):** students complete assessments without any AI assistance, focusing on foundational knowledge and independent thinking.

**Level 2 (AI Planning):** AI can support idea generation or structuring, such as brainstorming or outlining, but the final work must be written entirely by the student.

**Level 3 (AI Collaboration):** AI may assist with editing and refinement, for example improving grammar or clarity, while the student's original work remains the core submission.

**Level 4 (Full AI):** AI can contribute to parts of the task, but students are expected to critically evaluate and reflect on the AI-generated content.

**Level 5 (AI Exploration):** AI functions as a co-pilot throughout the task, supporting complex, creative or professional-style work where human judgement remains central.

<sup>19</sup> National Center for Education Statistics. (2024). [School Pulse Panel: Interactive Results](#).

<sup>20</sup> Langreo, L. (2025). [Schools' AI policies are still not clear to teachers and students](#). Education Week.

<sup>21</sup> Perkins, M., Furze, L., Roe, J., & MacVaugh, J. (2024). [The Artificial Intelligence Assessment Scale \(AIAS\): A framework for ethical integration of generative AI in educational assessment](#). *Journal of University Teaching and Learning Practice*, 21(6).

This graduated approach helps teachers design assessments that recognise the reality of AI use while still preserving intellectual responsibility and critical thinking. For education systems navigating the transition to an AI-present learning environment, frameworks such as the AI Assessment Scale provide a practical bridge between **academic integrity and technological reality**.

### *5. Teacher role and professional identity*

Perhaps the most important principle is that AI should strengthen the teaching profession, not weaken it. Used well, it removes routine administrative burdens and supports more reflective practice. Used poorly, it risks reducing teachers to supervisors of automated systems, eroding the professional judgement that makes good teaching possible. Investments in AI must therefore prioritise teacher agency, continuing professional development and communities of practice that help educators integrate technology into meaningful pedagogy, not around it.<sup>22</sup>

## **Getting AI in Education Right in Africa**

Africa has a genuine opportunity to shape how AI supports education in ways that reflect the realities of its schools and communities. Rather than replicating models designed for well-connected, well-resourced systems, the continent can develop solutions that work in bandwidth-constrained environments, respect linguistic diversity and strengthen rather than sideline teachers. But that opportunity requires preparation. The risk of importing tools designed for entirely different contexts, without adaptation or evaluation, is real and well-documented.

### *1. Diagnose before you deploy*

Before selecting any tool, education authorities need a clear picture of the conditions that determine whether AI can actually work: connectivity, device access, data systems and privacy safeguards, teacher preparedness, curriculum alignment, governance and

the capacity to evaluate impact.<sup>2</sup> The questions are practical. Are schools reliably connected and devices accessible? Do teachers receive genuine training in AI integration, or only tool demonstrations? Are assessments designed for a world where students have access to generative AI? Is there a dedicated unit with cross-sector representation to guide implementation? Honest answers determine sequencing. Systems that skip this step tend to invest heavily in technology and poorly in the conditions that make it useful.

### *2. Build teacher capacity as the central pillar*

No education technology succeeds without teacher confidence and ownership, and AI is no exception. Professional development must move beyond tool demonstrations and focus on genuine pedagogical integration: designing differentiated tasks, using AI in feedback cycles, navigating the ethical questions students will raise.<sup>23</sup> The most effective models combine focused professional learning with peer exchange and school-based communities of practice that make improvement a collective rather than individual endeavour. The goal is not training teachers to operate software. It is building the professional confidence and judgement to know when AI helps learning and when it does not.

### *3. Prioritise inclusive, offline-capable tools*

Tools designed for high-bandwidth environments will fail silently in schools where connectivity is intermittent or absent. Procurement should prioritise solutions that work offline, support local languages and incorporate accessibility features from the outset rather than as later additions.<sup>3</sup> The AI-enabled Accessible Digital Textbook initiatives piloted across several African countries offer a useful model: offline-first, multilingual and designed around the needs of diverse learners from the start, rather than retrofitted for them.

<sup>22</sup> World Bank. (2020). *Reimagining Human Connections: Technology and Innovation in Education at the World Bank*.

<sup>23</sup> UNESCO (2023). [ICT Competency Framework for Teachers](#).

#### *4. Start with high-leverage use cases*

The temptation in any new technology adoption is to attempt everything at once. A more productive discipline is to identify where AI can deliver clear near-term value and build from there. Reducing teacher administrative workload through automated attendance, grade entry and report drafting is a strong starting point: concrete, measurable and directly appreciated by those it is meant to support. AI practice companions in foundational literacy and numeracy offer a second high-return application, particularly where large class sizes make individual support difficult. Early warning dashboards and AI-assisted help desks address real system-level pain points without requiring sophisticated infrastructure. Piloting in a small cluster of schools and scaling only what demonstrably works is slower than system-wide rollout but far more likely to produce lasting results.

#### *5. Engage the ecosystem through public-private collaboration*

Responsible AI adoption requires collaboration between governments, universities, local EdTech firms, civil society and international partners. Well-governed partnerships can accelerate research, establish shared data standards and build capacity more quickly than any single actor.<sup>2</sup> The governing principle must be that data rights and performance metrics remain centred on student outcomes, not platform growth. Africa has a particular opportunity here: local startups and universities are well placed to develop tools that reflect regional languages, cultural contexts and curriculum priorities. Investing in language support for Amharic, Hausa, Swahili, Yoruba and other widely spoken languages, and building prompt libraries aligned to national curricula, are not peripheral concerns. They are what determines whether AI in African education becomes a genuine asset or another borrowed solution that does not quite fit.

### **A Collective Effort for the Future of Learning**

AI will not save education. People will: teachers, learners, families and leaders using new tools with

wisdom, care and purpose. The question is not whether AI will enter African classrooms; in many places it already has. The question is whether it will be introduced thoughtfully, governed responsibly and used in ways that genuinely serve learners rather than the interests of those supplying the technology.

That requires a coalition, and every actor has a role.

Teachers are already experimenting with AI to design lessons, generate feedback and support student practice. The invitation is to be deliberate: try one AI-supported approach, reflect on what changed in how students responded, and share that experience with colleagues. School leaders can protect time for professional dialogue and make the sharing of classroom evidence a regular practice rather than an occasional event. Policy-makers can provide the clarity practitioners need: concise, plain-language guidance on responsible use, backed by investment in infrastructure and procurement decisions that prioritise accessible, offline-capable tools first.

For EdTech partners and researchers, the obligation is co-design. Tools developed without sustained input from educators routinely fail to address the realities of classrooms. Building with teachers, particularly in rural and low-connectivity settings, and treating evidence of learning impact as a core product feature rather than an optional evaluation, is what separates technology that lasts from technology that disappoints.

For students and families, the ask is critical literacy: understanding what AI can and cannot do, and using it to deepen thinking rather than bypass it.

The opportunity is real. So is the risk of getting it wrong. The future of education will not be defined by algorithms. It will be shaped by the choices that educators, governments and communities make about how these tools are introduced and governed. If approached with care, humility and a genuine commitment to equity, AI can become a valuable ally in strengthening education systems across Africa.